

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

APPLICANTS' SECOND RESPONSE TO DECISION NO. 21

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Highly Confidential material is redacted from the public version of the document
filed at the Board.

I. Introduction

Applicants are making this second and final submission in response to the Board’s Decision No. 21, which accepted their Amended Application as complete and requested supplemental information regarding enhanced competition, shipper access, public benefits, service assurance, terminal railroads and car supply, market share projections, downstream mergers, passenger rail impacts, and other issues relevant to its public-interest determination. *See* Decision No. 21 (STB served May 28, 2026). Applicants responded to the Board’s requests regarding terminal railroads and car supply on July 7, 2026. This submission addresses the remaining requests, supported by Supplemental Verified Statements from Dr. Mark Israel, Dr. Elizabeth Bailey, and Mr. David Hunt, and a Verified Statement from Dr. Kristof Zetenyi of Analysis Group.

Applicants’ submissions respond fully to the requests posed by the Board. More broadly, Applicants are committed to the transparency and good faith that a proceeding of this importance demands, and to demonstrating, on the facts, that the UP/NS merger “is consistent with the public interest.” 49 U.S.C. § 11324(c).

In addition, since filing the first response to Decision No. 21, UP has entered into a settlement agreement with CN, contingent on Board approval and completion of the merger, that bears directly on three issues raised by Decision No. 21. The CN settlement agreement provides:

- CN will acquire NS’s ownership interest in the Terminal Railroad Association of St. Louis.
- CN will acquire NS’s ownership interest in the Kansas City Terminal Railway Company (“KCT”).

- UP will select CN to provide access to 2-to-1 and 3-to-2 shipper facilities where the Board requires Applicants to grant an additional Class I railroad access to a 2-to-1 or 3-to-2 facility, the Board finds CN is a suitable candidate to provide that access, and it is operationally and commercially feasible for CN to provide such access.

The CN settlement agreement also provides CN rights over UP's line between St. Louis, Missouri, and Kansas City, Missouri, including use of UP's Neff Yard.

The settlement agreement thus addresses Applicants' commitment to ensure the combined company will not control TRRA and ensures the combined company will not control KCT.¹ It also provides a means of addressing the small number of shipper facilities where post-merger Class I railroad options would go from two to one or from three to two. Finally, it gives CN a route between St. Louis and Kansas City and provides CN new access to Kansas City.²

Applicants' submissions, along with the CN settlement agreement, reinforce the Amended Application's showing that the UP/NS merger is consistent with the public interest. Together with the existing record, these submissions demonstrate that the proposed transaction will enhance competition, improve service and safety, create a more efficient supply chain, expand transportation options for shippers, and generate other public benefits while protecting against the potential for merger-related harms.

¹ CN will also acquire a portion of UP's ownership interest in Peoria & Pekin Union Railway ("PPU") such that UP/NS and CN will each have a 50% ownership stake in PPU.

² Applicants are providing a copy of the settlement memorandum of understanding as Attachment 1.

The Board’s merger policy recognizes that a merger of Class I railroads “may advance our nation’s economic growth and competitiveness through the provision of more efficient and more responsive transportation.” 49 C.F.R. § 1180.1(a). The Board’s policy is aligned with the Administration’s National Freight Strategic Plan, which recognizes a strong and efficient freight system is critical to this nation’s domestic and international goals. As the National Freight Strategic Plan explains, an efficient freight system is “essential for a strong U.S. economy” because it “helps operations run smoothly, lowers inventory costs, and reduces prices for consumers.”³ A strong and efficient freight system also “helps American companies stay competitive in the global market and supports a strong national defense.”⁴ The UP/NS merger will advance the nation’s transportation policies.

The UP/NS merger’s public interest case rests on a straightforward proposition: uniting a western network and an eastern network will create a more competitive, more efficient railroad by eliminating mid-continent handoffs that add delay, cost, and complexity to cross-country movements. The merger will expand competition and transportation alternatives available to shippers. It will transform approximately 10,000 existing UP-NS lanes and more than 88,000 county-to-county lane pairs in which shippers currently truck freight, including 45,000 lanes in the watershed area, from interline to single-line service. Faster, lower-cost, more reliable

³ U.S. Dep’t of Transp., *National Freight Strategic Plan* 2 (2026), https://www.transportation.gov/sites/dot.gov/files/2026NationalFreightStrategicPlan_FINAL_508.pdf.

⁴ *Id.*

single-line service will not only sharpen rail-to-rail and rail-to-truck competition, but also create new competitive opportunities for shippers in domestic and international markets that were previously out of reach because of high logistics costs. These sweeping benefits and the enhanced competition they produce can be achieved only through a merger. They cannot be durably replicated through alliances or joint-line arrangements, as decades of industry experience confirm.

This submission presents four significant new commitments that further strengthen the public-interest case for approval. These commitments address questions raised in Decision No. 21 regarding enhanced competition, service assurance, shipper access, and merger oversight.

First, Applicants are committing to expand the proposed Committed Gateway Pricing (“CGP”) program, transforming it into an even more robust mechanism for enhancing competition. The expanded proposal doubles the universe of eligible traffic—from approximately 133,890 carloads to 257,971 carloads based on 2024 data—by extending eligibility to shippers at competitively served BNSF and CSX origins and destinations and by including bulk unit train traffic. These changes respond directly to stakeholder feedback. Functionally, the expanded Committed Gateway Pricing operates as the equivalent of thousands of haulage agreements, giving BNSF and CSX commercial access to sole-served facilities deep within the legacy NS and UP systems without requiring thousands of separate commercial negotiations. Committed Gateway Pricing will also create new head-to-head competitive options for shippers, including for agricultural shippers in the watershed

region, who will also gain access to the merged railroad's expanded network of single-line routing opportunities.

Second, Applicants are committing to a new Targeted Access Program that provides an objective, transparent backstop against unforeseen service disruptions during the merger implementation period. Under the program, a sole-served customer located in a terminal area becomes eligible for expedited reciprocal switching if: (1) its Original ETA ("OETA") or Industry Spot & Pull ("ISP") performance has deteriorated from pre-merger levels, and (2) that performance falls below 70% for OETA or 85% for ISP. Any switching ordered through expedited arbitration will remain in effect for six months. Applicants are confident that this program will never need to be invoked. Its purpose is to provide assurance to the Board and interested parties that, if unforeseen service issues arise, an objective, expeditious, and enforceable remedy will be in place.

Third, Applicants are committing to a condition designed to preserve the pre-merger level of Class I railroad access to 2-to-1 and 3-to-2 shipper facilities directly served by either UP or NS. Applicants propose a process through which the Board can ensure a Class I competitor will effectively replace any competition lost in the merger through trackage rights, haulage, or another mutually acceptable arrangement. No prior major railroad merger has provided this protection to 3-to-2 shipper facilities on a proactive, system-wide basis.

Fourth, Applicants are committing to a Rate ADR Program as an additional springing condition. The program would become effective if the Board determines

during the oversight period that the merger’s anticipated public benefits have not materialized in a timely manner. If triggered, the Rate ADR Program would make expedited rate dispute resolution available for all regulated traffic. The program provides the Board with a readily implemented measure to deploy if necessary.

Applicants’ new commitments supplement their prior commitments to further ensure the merger is overwhelmingly in the public interest. Applicants encourage all interested parties to participate in this proceeding and welcome the engagement from customers and other stakeholders. Applicants will treat all customers and stakeholders fairly, regardless of the views they express, and Applicants trust that their competitors opposing the transaction will do the same for customers expressing their support.

* * *

This submission is organized into eight sections that respond comprehensively to the remaining topics raised by the Board in Decision No. 21.

- In **Section II — Enhanced Competition**, Applicants describe the substantially expanded Committed Gateway Pricing program and the new Targeted Access Program. EC-1 provides consumer surplus calculations for each original CGP exclusion and explains the rationales for those exclusions. EC-2 explains how the expanded CGP program appropriately serves as a temporary regulatory mechanism to address transitory concerns. EC-3 explains that traffic eligible for CGP but not immediately benefiting from it is not harmed by CGP, and explains why the 70th-percentile rate cap appropriately balances competitive enhancement with differential pricing. EC-4 describes the service-performance standards that will govern CGP haulage movements. EC-5 shows how the proposed conditions reinforce geographic options protecting sole-served facilities on UP and NS that ship traffic on a single-line basis today. Finally, EC-6 explains how the new Targeted Access Program will provide the primary service-related remedy for unforeseen transitional service disruptions, while the expanded CGP program would afford some shippers an additional alternative.

- In **Section III — Access: 2-to-1 and 3-to-2 Shipper Facilities, Short Lines, and Ports**, Applicants confirm that the merger will create very few 2-to-1 or 3-to-2 shipper facilities and explain how their new access commitment will address 3-to-2 concerns. A-1 identifies each 2-to-1 and 3-to-2 facility and describes proposed access arrangements. A-2 explains that the new access commitment largely resolves the Board’s inquiry regarding 3-to-2 facilities. A-3 addresses the state of discussions with affected 2-to-1 and 3-to-2 customers. A-4 confirms that Applicants do not intend to reduce or eliminate existing access for short lines or ports to a Class I railroad.
- In **Section IV — Public Benefits**, Applicants demonstrate that the substantial public benefits underlying the proposed merger are well supported and reasonably expected to be realized. PB-1 explains that Applicants’ diversion analyses reflect non-structural, ordinary-course competitive responses but not structural industry changes, such as subsequent mergers. PB-2 presents supplemental analyses of the impacts on projected diversions from hypothetical future transactions involving BNSF, CSX, and CPKC, and shows such impacts would not have a meaningful impact on UP/NS earnings available for fixed charges. PB-3 reconciles the diversion analyses with UP’s pre-merger projections and confirms that NS did not develop materially lower projections. PB-4 confirms that the diversion analyses and public benefits summaries do not incorporate benefits from the expanded Committed Gateway Pricing program. PB-5 confirms that Applicants will have sufficient capacity to achieve the merger’s projected public benefits following consummation through planned infrastructure improvements. PB-6 confirms that rates for new single-line service are expected to be consistent with prevailing market rates for comparable single-line movements. PB-7 describes a proposed merger oversight framework and introduces the Rate ADR Program. Finally, PB-8 explains why Applicants did not pursue joint-line agreements rather than a merger to capture certain intermodal traffic.
- In **Section V — Service Assurance**, Applicants demonstrate that the proposed transaction is supported by a comprehensive framework for protecting shippers against any unforeseen service disruptions. This section provides further information about the Damages ADR Program proposed in the Amended Application and introduces the new Targeted Access Program. SA-1 explains the principal features of the Damages ADR Program and explains why a flexible, case-specific standard is preferable to rigid performance benchmarks for individual claims. SA-2 describes and explains the compensation framework, including the \$2 million cap, limitation to direct damages, and anticipated payment through cash or credits. Finally, SA-3 explains the remedial framework

available to shippers of exempt commodities and contract traffic, and confirms that the Damages ADR Program supplements rather than displaces existing remedies. It also introduces and describes the Targeted Access Program, including the program's objective performance metrics, eligibility criteria, expedited arbitration process, and rate-setting authority.

- In **Section VI — Market Shares**, Applicants explain that projected increases in market share are the product of enhanced competition and customer choice—not diminished competition—and therefore do not threaten the continued ability of competing railroads to constrain pricing or provide essential service. MS-1 describes a supplemental analysis showing that competing railroads will retain the ability to provide essential service and exert meaningful competitive discipline on routes where Applicants' combined market share will increase. MS-2 explains that the diversion analyses appropriately account for significant industry developments, including the CP-KCS, CSX-Pan Am, and CN-Iowa Northern transactions.
- In **Section VII — Downstream Impacts**, Applicants demonstrate that the possibility of future Class I consolidation does not undermine the public-interest case for the proposed merger or warrant additional conditions in this proceeding. DS-1 evaluates each potential subsequent end-to-end combination involving BNSF, CN, CPKC, and CSX, demonstrating through SCRS data that any resulting horizontal overlap would remain limited. DS-2 explains that any subsequent end-to-end merger would further expand, rather than diminish, geographic competition, and that the Board's authority to impose conditions remains constrained by the transaction-specific nature of merger review, the Administrative Procedure Act, the Board's finality doctrine, and fundamental principles of due process. Finally, DS-3 demonstrates that subsequent mergers would not diminish the effectiveness of Applicants' proposed conditions.
- In **Section VIII — Passenger Rail**, Applicants demonstrate that the proposed transaction will not adversely affect passenger rail operations. PR-1 explains that UP does not host the Heartland Flyer service and corrects the FRA report indicating otherwise. PR-2 demonstrates that the Conrail Lehigh Line has sufficient capacity to accommodate the projected increase in freight traffic while maintaining existing passenger service levels. Finally, PR-3 presents detailed supplemental analyses confirming that the combined railroad will have sufficient capacity to support projected freight increases while maintaining passenger service levels.

- Finally, in **Section IX — Prima Facie Case**, Applicants address the Board’s indication that it may evaluate whether Applicants have presented a *prima facie* case that the public benefits of the transaction outweigh any anticompetitive effects, potential service disruptions, or other merger-related harms. After setting out the standard applicable to that evaluation, Applicants describe how the evidence and facts they have presented to the Board are easily sufficient to meet that standard.

These responses fully address each of the Board’s supplemental requests and further strengthen the record supporting approval of the proposed transaction. Applicants therefore respectfully request that the Board proceed with its review in accordance with a schedule that reflects both the substantial diligence already devoted to this proceeding and the substantial evidentiary record now before it. Applicants fully respect the Board’s desire to carefully review what will be a transformational transaction for the railroad industry and the nation’s freight transportation system, but also ask the Board not to delay consideration of this transaction, which is intended to fulfill the goal of “prevent[ing] bottlenecks, mov[ing] freight faster, and deliver[ing] goods more affordably for the American people.”⁵

II. Enhanced Competition

A. Introduction — Expanded Committed Gateway Pricing and a Targeted Access Program

The Board’s requests for supplemental information regarding enhanced competition address a variety of issues, each of which is discussed below. The Board’s emphasis on competitive enhancements in its major merger rules reflects two core

⁵ U.S. Dep’t of Transp., *Trump’s Transportation Secretary Sean P. Duffy Announces American Supply Chain Sovereignty Initiative to Move Freight Faster, Lowers Costs for American People* (June 12, 2026), <https://www.transportation.gov/briefing-room/trumps-transportation-secretary-sean-p-duffy-announces-american-supply-chain>.

concerns: (i) competitive harms such as loss of geographic competition that cannot be remedied directly and proportionally, and (ii) transitional service disruptions that might temporarily negate shipper benefits. *See* 49 C.F.R. § 1180.1(d).

As demonstrated in the Amended Application, the UP/NS merger itself will substantially enhance competition with other railroads and with trucks by creating a single-line transcontinental rail network that will provide faster, more efficient, more reliable service than the current interline rail alternatives. Applicants have also proposed a series of enforceable commitments designed both to preserve and expand competitive opportunities and to ensure that any potential transitional service issues are promptly addressed. The additional commitments described below further strengthen those protections. Together, Applicants’ commitments eliminate any reasonable concern that merger-related harms could undermine the transaction’s substantial public benefits.

This introduction highlights two significant enhancements to the Amended Application that are independent of Decision No. 21 and should not be lost in the breadth of Applicants’ responses to the Board’s specific requests for information.

First, Applicants are committing to substantially expand the scope of the Committed Gateway Pricing (“CGP”) program, effectively doubling the universe of traffic eligible to participate. As described below, the expanded CGP program will extend eligibility to shippers at competitively served origins and destinations on BNSF and CSX and will include bulk unit trains. These modifications respond directly to stakeholder feedback that the original program excluded significant

categories of shipper facilities and traffic. As expanded, CGP is the functional equivalent of thousands of haulage agreements in a single enforceable commitment, allowing BNSF and CSX to extend their reach deep into the legacy NS and UP systems to provide shippers a new competitive option.

Second, Applicants are committing to a Targeted Access Program that will provide access relief from transitional service issues. Under the program, objective service metrics drawn from the Board’s existing performance measures will trigger an expedited arbitration process through which eligible terminal-area customers may obtain reciprocal switching on a temporary basis. By relying on objective performance measures, clearly defined eligibility criteria, and a streamlined dispute-resolution process, the program provides a transparent and readily administrable safeguard against any unexpected transition-related service issues.

These two new enhancements are voluntary. Applicants developed them in response to comments from shippers and other stakeholders. They are intended to supplement the substantial competitive enhancements that will result from the merger itself. Together with Applicants’ existing service assurance commitments and integration planning, they further demonstrate that the proposed transaction will enhance competition while ensuring service reliability throughout implementation.

1. Applicants’ Expansion of Committed Gateway Pricing

Applicants’ proposed Committed Gateway Pricing condition builds on an existing, successful program that UP and BNSF adopted to enhance competition between the two railroads in the I-5 corridor between the Pacific Northwest and the Southwest. CGP is a commitment by Applicants to provide BNSF or CSX with a

market-based price for the legacy UP or legacy NS leg of a movement to or from a sole-served customer facility on the merged UP/NS. CGP was originally designed with a specific type of customer in mind: a customer located at a sole-served facility at one end of a transcontinental movement, whose traffic must travel over both UP and CSX (or NS and BNSF) to reach its destination at a sole-served facility at the other end of the movement. Today, such a customer faces two bottleneck carriers, one on each end of the movement, each with pricing power over its portion of the haul. Although the shipper may seek separate Rule 11 rates or a joint through rate, it nevertheless remains subject to the independent pricing decisions of two railroads. CGP does not eliminate both bottlenecks—it cannot. BNSF and CSX are independent carriers under no obligation to reciprocate. CGP addresses the legacy UP or legacy NS bottleneck and creates a competitive option that does not exist today.

Committed Gateway Pricing has important benefits compared with other potential special mechanisms for enhancing competition. Unlike trackage rights, CGP can be widely deployed to benefit shippers across the UP/NS network without requiring other railroads to supply their own crews and locomotives and without creating additional congestion from competing operations.⁶ Similarly, CGP does not require other railroads to commit resources where they might not have sufficient traffic to justify running their own trains. CGP also guarantees non-discriminatory treatment because, with the exception of bulk unit trains, traffic will move in the

⁶ *Cf. Major Rail Consolidation Procedures*, 5 S.T.B. 539, 570 (2001) (“And we also recognize that granting shippers direct access to other rail carriers could, at least in some cases, complicate merger implementation by creating additional congestion.”).

same trains as UP/NS's own traffic. And CGP does not unduly undermine differential pricing because revenue requirements are set at the 70th percentile.⁷ Finally, unlike the elimination of interchange commitments, CGP applies to shippers located on Class I railroads as well as short lines, and CGP would not require restructuring and potentially unwinding established, successful relationships with short lines.

a. Original Committed Gateway Pricing Design

Committed Gateway Pricing is best understood as a pro-competitive arrangement similar to haulage. Haulage agreements are well-established and defined arrangements that allow one carrier to establish rates and enter into contracts for traffic moving between points on its own lines and points on another carrier's lines, with the traffic itself moving on the second carrier's power and crews.⁸ Haulage extends the competitive reach of an off-line carrier into territory it could not otherwise serve, breaking a bottleneck and giving an otherwise sole-served shipper a second competitive option.

The Board has deployed haulage arrangements as an affirmative pro-competitive remedy in the merger context for decades.⁹ The agency has typically imposed haulage rights in prior mergers on a case-by-case basis—imposing, for

⁷ *Cf. id.* (“[W]e recognize that carriers need to be able to engage in some degree of differential pricing . . .”).

⁸ *See KNRECO, Inc., d/b/a Keokuk Jct. Ry.—Acquisition & Operation Exemption—Atchison, Topeka & Santa Fe Ry.*, FD 30918 (ICC served Apr. 28, 1988), *aff'd sub nom. Simmons v. ICC*, 871 F.2d 702 (7th Cir. 1989).

⁹ *See, e.g., Union Pac. Corp.—Control & Merger—S. Pac. Rail Corp.*, 1 S.T.B. 233, 252 (1996) (identifying haulage alongside trackage rights as the mechanism through which BNSF would be able to provide competitive service to 2-to-1 shippers on the combined system).

example, one haulage agreement for one shipper facility, or one haulage agreement for shipper facilities in a specific area.¹⁰

Committed Gateway Pricing extends the well-established haulage concept across the combined networks of UP and NS. Rather than imposing haulage rights facility by facility, CGP establishes a single enforceable merger commitment applicable to every eligible sole-served location. That scale transforms the nature of the condition. The Board has recognized that haulage conditions imposed in prior mergers serve to “preserve routing options for . . . shippers, helping support a strong supply chain and market access for American exports.”¹¹ The CGP program does more than that. Where prior haulage agreements preserved competitive options that existed before a merger, CGP creates thousands of competitive options for sole-served facilities that never existed. That is a genuine and meaningful enhancement of competition.

b. Expansion of Committed Gateway Pricing

The original Committed Gateway Pricing program was deliberately scoped. It was designed to enhance competition for sole-served to sole-served transcontinental movements precisely because these movements would not directly enjoy the transformational benefits of the UP/NS merger. Stakeholder comments and the

¹⁰ See, e.g., *CSX Corp.—Control & Operating Leases/Agreements—Conrail Inc.*, 3 S.T.B. 196, 388–89 (1998) (ordering a haulage arrangement to give CP competitive access to a sole-served Conrail facility); *Union Pac. Corp.—Control—Mo.-Kan.-Tex. R.R.*, FD 30800 (ICC served Aug. 11, 1988) (approving haulage agreement as merger condition).

¹¹ Surface Transp. Bd., *STB Enforces Merger Conditions Facilitating Continued Competitive Options for Grain Traffic to Gulf Coast* (July 7, 2025), <https://www.stb.gov/news-communications/latest-news/pr-25-24/>.

Board's supplemental requests in Decision No. 21 identified two principal limitations in the original proposal: eligibility where only one end of the movement is sole served and the exclusion of bulk unit trains. Applicants' expansion of CGP addresses both issues.

First, the expanded Committed Gateway Pricing program still requires either the origin or destination to be sole served on the combined UP/NS system but removes the prior limiting requirement that the movement also be sole served by CSX or BNSF. A shipper at a competitively served facility on BNSF or CSX can now invoke CGP to circumvent the bottleneck end of its movement, giving BNSF or CSX a committed price to work with and creating the same competitive optionality the original program delivered for sole-served to sole-served movements.

This first revision materially broadens competitive opportunities. Rather than simply creating an additional competitive option for one segment of a movement, it allows competitive pressure to operate across the entire movement. And newly eligible customers will reap double benefits from the proposed transaction: (1) improved single-line service the merged UP/NS will offer across its expanded network; and (2) direct rail-to-rail competition between CSX or BNSF and the merged UP/NS. In other words, because CSX or BNSF can now compete at both ends of the movement, shippers effectively become dual served across the full length of their lane.

Second, stakeholders representing agricultural interests observed that excluding bulk unit train traffic from Committed Gateway Pricing left their traffic entirely outside the program, significantly limiting CGP's practical value to them. In

response, Applicants will extend CGP to bulk unit trains.¹² Upon reflection, Applicants concluded the exclusion should be removed to deliver on one of the merger’s most significant competitive promises. A core driver of the proposed merger is to open new markets, and nowhere is that goal more important than in the watershed region, where American agricultural shippers have historically faced limited single-line rail options and where the combined UP/NS network creates new single-line routing possibilities that do not exist today. Accordingly, in response to this feedback, Applicants will expand CGP to include bulk unit train shipments. This expansion benefits not only agricultural shippers, but also shippers of coal, sand, stone, and other bulk unit train commodities.

Dr. Israel evaluated the impacts of Applicants’ expansion of Committed Gateway Pricing in his Supplemental Verified Statement. Using 2024 data, Dr. Israel calculated that the expansion doubled the number of carloads of traffic eligible for CGP, from 133,890 carloads to 257,971 carloads.¹³ Dr. Israel’s calculations show that shippers of bulk unit train traffic are potentially big winners from the expansion, with more than 41,477 carloads of traffic eligible for CGP.¹⁴ These figures represent

¹² “Bulk unit train” means a connected and consecutive set of at least 67 railcars that are tendered at the same time by one entity, from one origin to one destination for movement in service other than manifest. “Bulk unit train” does not include shipments of automobiles, automobile parts, or intermodal containers. Eligibility will be limited to UP/NS facilities and routes that can accommodate bulk unit train service.

¹³ See Supplemental Verified Statement of Dr. Mark A. Israel (“Israel Supp. VS”) ¶ 29, Fig. 6; *id.* ¶ 34, Fig. 8.

¹⁴ See *id.* ¶ 29, Fig. 6. Note that Figure 6 addresses eligible bulk unit train shipments only from shippers that are sole-served on both ends of the move, so it does not capture all newly eligible bulk unit train shipments.

existing traffic for which rates are now essentially capped by CGP's method of capping rates at the 70th percentile of the rates UP/NS charges for similar shipments. The figures do not reflect additional traffic that might start to move because rates are constrained by the new competitive option created by CGP.

Dr. Israel also calculated that the expansion tripled the number of carloads of traffic that would benefit immediately from application of Committed Gateway Pricing because they have per car-mile rates exceeding the CGP rates, from 35,729 carloads to 103,676 carloads.¹⁵ Again, shippers of bulk unit train traffic will benefit from the expansion.¹⁶ And once again, these figures do not reflect benefits to additional traffic that would move only because of the new competitive option created by CGP.

The diagrams below show the origin and destination points of eligible traffic that could be handled by BNSF and CSX under the expanded Committed Gateway Pricing program.¹⁷

¹⁵ See *id.* ¶ 29, Fig. 6; *id.* ¶ 34, Fig. 8.

¹⁶ See *id.* ¶ 32(i).

¹⁷ See *id.* ¶ 11, Fig. 1; *id.*, Fig. 2.

Figure EC-1: Committed Gateway Pricing Eligible Shipments: BNSF

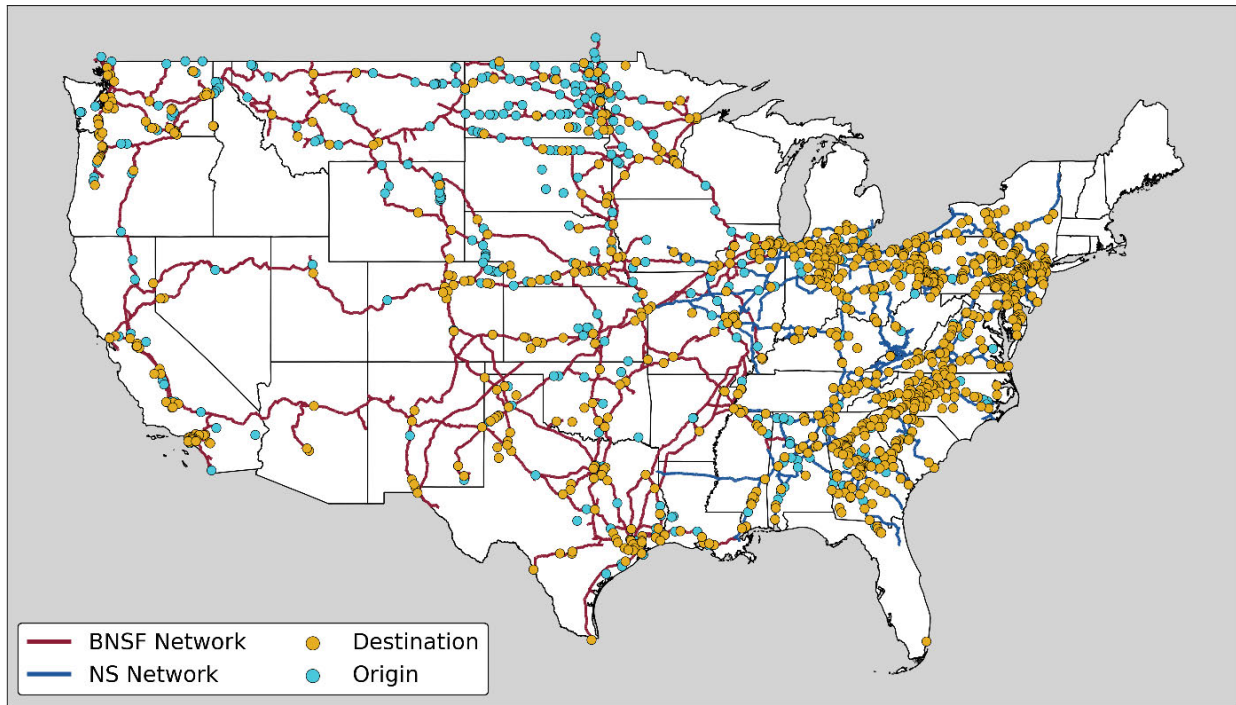
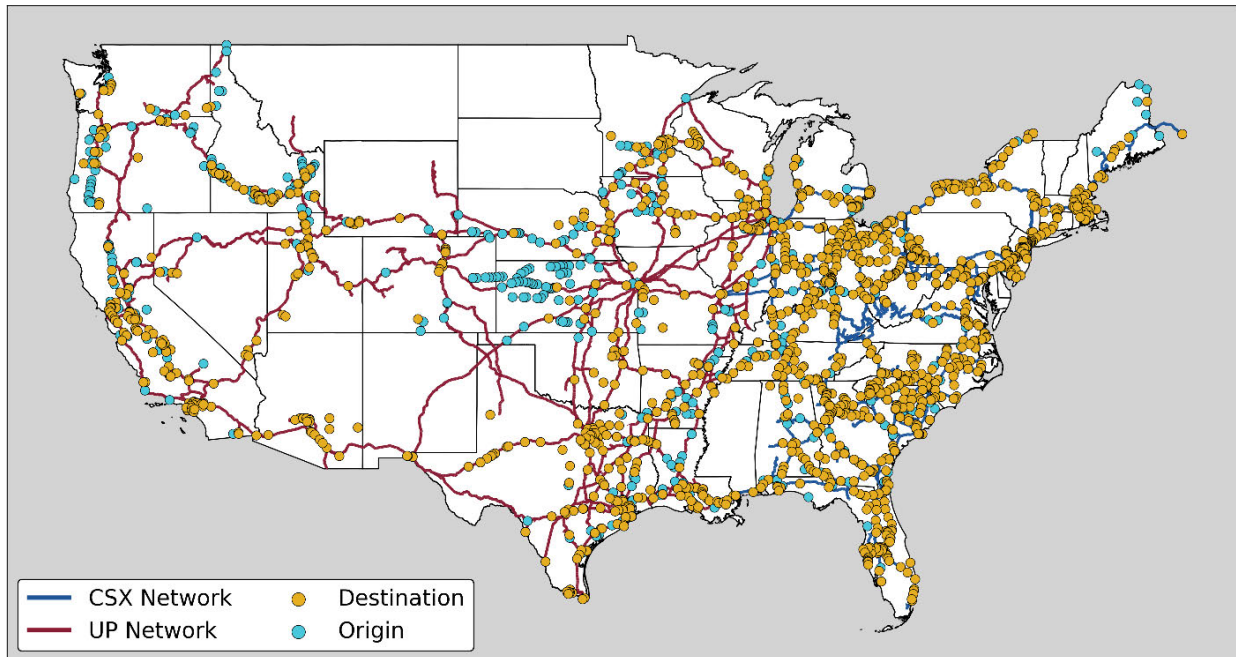


Figure EC-2: Committed Gateway Pricing Eligible Shipments: CSX



2. New Targeted Access Program

Applicants are also proposing a new condition to provide a safeguard against unforeseen merger-related service disruptions during the implementation period, prompted by the Board’s Request EC-6. *See* Decision No. 21 at 22 (“Discuss the extent to which CGP would enable shippers to have competitive choice to help reduce or avoid use of the merged carrier during service disruptions, should transitional service problems occur.”). Although Committed Gateway Pricing was not designed to address merger-related service disruptions, Applicants are proposing a Targeted Access Program to address the issue directly.¹⁸

The details of this new Targeted Access Program are provided below in response to the Board’s Request SA-3 and in Appendix A. The access program makes customer-specific performance metrics available upon request and establishes objective thresholds that trigger eligibility for reciprocal switching unless an affirmative defense applies. These objective service metrics will be original estimated time of arrival (“Original ETA”) and industry spot & pull (“ISP”) as adopted in Ex Parte 787.¹⁹ During the merger implementation period, if any UP/NS customer that is sole-served and located in a terminal area can show that its Original ETA or its ISP had deteriorated from pre-merger levels and is below 70 percent for Original ETA

¹⁸ Applicants also addressed the issue of potential merger-related service disruptions in their Service Assurance Plan by proposing an alternative dispute resolution program for resolving disputes concerning service during the merger integration period. *See* Amended App., Vol. 2 at 1139, Verified Statement of John W. Turner (“Turner VS”), App. B.

¹⁹ *Updating Class I Rail Carrier Reporting Requirements*, EP 787 (served May 8, 2026) and codified at 49 C.F.R. § 1251.2.

or below 85 percent for ISP, then that customer would be eligible for reciprocal switching without having to demonstrate the deterioration in service was merger-related, unless the railroad proves an affirmative defense or cures the service deterioration within 30 days. Any switching ordered in the arbitration would be in place for six months, and arbitrators would have authority to set rates for such prescribed switching.

The Targeted Access Program provides an objective, readily administrable safeguard against unforeseen merger-related service deterioration during the implementation period. Applicants are confident that their careful planning and implementation of the merger will only improve service, and they do not expect this program would ever be invoked. But the program provides a backstop that Applicants hope will give the Board and interested parties confidence that such an option will be available in the event of unanticipated merger-related service disruptions.

3. The Committed Gateway Pricing Program and the Targeted Access Program Complement the UP/NS Merger’s Significant Enhancements of Competition

Applicants’ proposed Committed Gateway Pricing condition and Targeted Access Program respond to a shift in the Board’s policy for evaluating whether a merger of Class I railroads is “consistent with the public interest.” 49 U.S.C. § 11324(c). Under the Board’s prior policy, mergers were not required to enhance competition. Instead, the Board required “only that any transaction-related harms to

competition or essential public services be offset by corresponding public benefits.”²⁰ Any condition imposed had to be narrowly tailored to remedy the harm that it was intended to address. The Board would “not impose a condition that would put its proponent in a better position than it occupied before the consolidation.”²¹

The Board has now stated, however, that mergers of Class I railroads should “affirmatively enhance competition relative to the pre-merger baseline.”²² The Board specifically linked this new approach to concerns about (i) competitive harms such as loss of geographic competition that could not be remedied directly and proportionally, and (ii) transitional service disruptions that might temporarily negate any shipper benefits. *See* 49 C.F.R. § 1180.1(d). The Board encouraged applicants to propose special competition-enhancing conditions to “offset such potential harms” and “improve the prospect that their [merger] would be found to be in the public interest.” *Id.*²³

At the same time, the Board recognized that mergers can enhance competition even without special competition-enhancing conditions by “improv[ing] existing

²⁰ *Canadian Pac. Ry.—Control—Kan. City S.*, FD 36500, at 18 (STB served Mar. 15, 2023).

²¹ *Id.* at 21 (quoting *Burlington N. Inc.—Control & Merger—Santa Fe Pac. Corp.*, 10 I.C.C.2d 661, 730 (1995)).

²² *Id.* at 18.

²³ *See also Major Rail Consolidation Procedures*, 5 S.T.B. at 547 (“Our new rules reflect an intention on our part to offset, through conditions for competitive enhancements, those merger-related harms that cannot be directly or effectively mitigated.”); *id.* at 550 (“The amount of new or enhanced competition that would be needed . . . would depend on the potential for and likely extent of service problems risked and the degree to which existing competitive alternatives could not be feasibly and effectively preserved.”).

competition or provid[ing] new competitive opportunities.” 49 C.F.R. § 1180.1(c). Indeed, the Board has repeatedly found that mergers can “enhance competition by creating a stronger competitor” with other rail carriers and with trucks, especially by creating “new single-line service.”²⁴ And the Board’s current rules affirm that “such enhanced competition will be given substantial weight” in the agency’s public interest analysis. 49 C.F.R. § 1180.1(c)(1). In other words, the Board’s rules provide that applicants can demonstrate that their transaction enhances competition even without special competition-enhancing conditions.²⁵

The UP/NS merger’s core public benefits will provide a transformational enhancement of competition: for the first time, a single integrated railroad network will span the continent, sharpening rail’s competitive position against every other mode of transportation and delivering gains to shippers, communities, and the national economy far beyond what any set of regulatory conditions could provide.

²⁴ *Canadian Pac. Ry.—Control—Kan. City S.*, at 21; *see also, e.g., id.* at 48 (CP-KCS transaction “will in fact enhance competition by creating a stronger competitor against BNSF, UP, and CN”).

²⁵ *See* 49 C.F.R. § 1180.1(d) (encouraging applicants to propose competition-enhancing conditions to “improve the prospect that their proposal would be found to be in the public interest”); *Major Rail Consolidation Procedures*, 5 S.T.B. at 547 (stating “the quantity and quality of competitive enhancements that would be required would depend on the circumstances of a particular case,” namely, (1) the existence of potential “merger-related competitive harm for which feasible and effective remedies could not be devised,” (2) “the amount of post-merger service disruption that would be likely to occur,” and (3) “the amount of public benefits that could truly be expected to flow from a particular transaction”).

The Board’s rules recognize that applicants may find the factors “difficult to weigh and offset,” *Major Rail Consolidation Procedures*, 5 S.T.B. at 547, and thus applicants do not risk denial of their application if they fail to anticipate the Board’s expectations. *See* 49 C.F.R. § 1180.1(c) (“[T]he Board is prepared to use its conditioning authority as necessary under 49 U.S.C. 11324(c) to preserve and/or enhance competition.”).

As expanded, Committed Gateway Pricing further enhances competition by providing haulage-like access between hundreds of BNSF-served and CSX-served locations, on the one hand, and hundreds of sole-served locations on UP/NS, on the other hand, while the Targeted Access Program provides a focused remedy should transitional service issues arise. Together, these commitments directly address the Board’s concerns about unremedied competitive harm and transitional service disruptions. But these commitments do not define the merger; they merely reinforce an application that demonstrates the merger itself will enhance competition on a national scale. Measuring the merger’s public interest benefits based on these narrow ancillary commitments mistakes the tail for the dog.

More broadly, the Board has long recognized that expanding regulatory conditions beyond what the underlying concerns require does not serve the public interest; it serves only the interests of other stakeholders seeking to improve their position through regulatory concessions. The Board’s major merger rules do not contemplate that conditions will do more than offset specifically identified merger-related harms, and imposing conditions outside of that scope (whether to “enhance competition” or otherwise) would go beyond the Board’s statutory mandate to approve and authorize a transaction that is consistent with the public interest.²⁶

²⁶ See 49 C.F.R. § 1180.1(d) (“Conditions are generally not appropriate to compensate parties who may be disadvantaged by increased competition.”); *see also Major Rail Consolidation Procedures*, 5 S.T.B. at 569 (“Our primary focus in imposing conditions—including competitive conditions—should and will continue to be remedial.”).

B. Specific Responses

EC-1 For each proposed CGP exclusion or limitation, (a) applying Israel's model, quantify the degree to which inclusion in CGP would generate consumer surplus for the excluded group; (b) explain the rationale for excluding or limiting that group from CGP eligibility; and (c) where the exclusion or limitation is for operational reasons, estimate the costs of any operational modification required to make the excluded group CGP-eligible. While some traffic may fall in multiple excluded groups, Applicants shall address and compare the potential public benefits and costs of making each individual excluded group CGP-eligible, rather than address all groups in aggregate.

1. Response to EC-1(a)

The Supplemental Verified Statement of Dr. Mark A. Israel describes the results of applying the model he used in the Amended Application to quantify the degree to which inclusion in the Committed Gateway Pricing program would generate consumer surplus for each individual category of traffic that was originally excluded from the scope of CGP. The results of Dr. Israel's calculations are shown below in Table EC-1.

Table EC-1: Summary of Shipments Affected by the Original CGP Proposal²⁷

	Total Number of Carloads			Total UP/NS Revenues (\$ Million Per Year)		
	Used for Calculation of CGP	Eligible for CGP	Potentially Benefiting from CGP	Used for Calculation of CGP	Eligible for CGP	Potentially Benefiting from CGP
<u>Original CGP Proposal</u>	344,608	133,890	35,729	\$2,262.81	\$658.37	\$213.08
<u>Additional Shipment Inclusions:</u>						
Bulk unit trains	419,119	175,367	50,950	\$2,411.71	\$756.27	\$250.56
TIH/PIH materials	346,452	134,255	35,953	\$2,296.82	\$663.89	\$217.77
Intermodal	1,039,407	211,075	75,053	\$3,211.26	\$785.47	\$364.06
Finished vehicles	409,225	155,862	37,090	\$2,533.28	\$715.38	\$215.78
Additional interchange points	372,738	139,106	34,423	\$2,469.21	\$685.81	\$195.64
Additional rail carriers	432,369	216,883	56,288	\$2,687.81	\$1,067.52	\$335.12
Shippers with direct rail-to-rail competition						
On either or both ends	184,562	293,936	36,256	\$1,582.16	\$1,339.02	\$225.31
On CSX's or BNSF's end only	280,302	198,196	50,314	\$1,943.78	\$977.40	\$272.99
Dimensional loads	344,793	133,961	35,798	\$2,266.33	\$660.95	\$215.65
Rail carriers' facilities	345,358	133,997	35,745	\$2,269.57	\$659.14	\$213.24

²⁷ See Israel Supp. VS ¶ 29, Fig. 6.

As discussed above, Applicants are expanding Committed Gateway Pricing to apply wherever one end of the move is sole served by UP/NS and the other end is served by BNSF or CSX and to include bulk unit train traffic. Dr. Israel shows these expansions meaningfully increase the amount of traffic eligible for and benefited by CGP. Dr. Israel also shows that Applicants’ remaining exclusions generally have limited impact on CGP eligibility and benefits and that exclusions with larger impacts—*e.g.*, traffic with competition at each end and intermodal traffic—are consistent with a preference for allowing competition to discipline rates.²⁸

2. Response to EC-1(b) & (c)

Applicants intentionally structured their proposed Committed Gateway Pricing program to include and exclude certain categories of traffic. Broadly, Applicants were trying to address the statement in the Board’s major merger rules that applicants should propose conditions to enhance competition that are tailored to offset (i) “potential harms” from “anticompetitive effects that would be difficult to mitigate through appropriate conditions,” in particular, the “loss of geographic competition,” and (ii) “transitional service disruptions might temporarily negate any shipper benefits,” 49 C.F.R. §§ 1180.1(c) & (d), while accounting for the substantial competitive enhancements that would result from an unconditioned merger.²⁹ Applicants therefore designed CGP to enhance competitive options for shippers that (1) do not have access to multiple Class I railroads, and (2) would not benefit directly

²⁸ See *id.* ¶¶ 23–26.

²⁹ See *Major Rail Consolidation Procedures*, 5 S.T.B. at 547.

from the merger or a competition-preserving condition. Consistent with their objective, Applicants excluded shippers that had access to multiple Class I railroads and that would benefit from UP/NS single-line service.

An additional reason for excluding shippers with access to multiple Class I railroads and shippers that would benefit directly from the merger was to maintain a distinction between the population of movements used to set rates under Committed Gateway Pricing (the “input set”) and the population of movements to which CGP would apply (the “application set”). Failure to maintain that distinction could produce downward-ratcheting feedback effects that would threaten the ability to engage in demand-based differential pricing, which the Board has recognized is vital to the long-term financial health of the railroad industry.³⁰ Applicants also believed that keeping input sets substantially larger than application sets would reduce potential upward pricing pressure on input sets.

Applicants also excluded certain categories of traffic because the traffic is not readily susceptible to pricing under Committed Gateway Pricing’s general approach of developing applicable rates per car mile based on comparable movements.

The specific exclusions are discussed in more detail below.

Shippers with direct rail-to-rail competition. Applicants excluded shippers with direct rail-to-rail competition because those shippers already had direct

³⁰ See *Pet. for Rulemaking to Adopt Revised Competitive Switching Rules*, EP 711 at 7 (STB served July 25, 2012) (“To remain financially sound, carriers must be allowed to engage in ‘demand-based differential pricing’—that is, in order to recover the substantial joint and common costs of its network, a railroad must be able and permitted to charge different customers different prices based on their different levels of demand for transportation services.”).

rail-to-rail competition, were protected by the open gateway condition, and in most cases would benefit directly from the merger. For example, shippers sending freight from origins served by UP and BNSF to destinations served by CSX and NS had direct rail-to-rail competition, the open gateway condition would preserve their competitive options, and the merger would further enhance competition by creating a single-line UP/NS alternative to BNSF-CSX, UP-CSX, and BNSF-NS routings.

Connecting carriers other than BNSF and CSX. Applicants excluded connecting carriers other than BNSF and CSX for two main reasons. First, Applicants excluded CN and CPKC because Committed Gateway Pricing is based on a comparable movement approach—that is, CGP rates per car mile will be based largely on rates for east-west transcontinental movements of similar commodities for similar distances within the United States. Applicants’ traffic interchanged with CN and CPKC involves a significantly larger share of north-south and international movements than Applicants’ traffic that is interchanged with CSX or BNSF. Applying rates based on east-west movements within the United States to north-south movements and movements across national boundaries would be inconsistent with the logic underlying CGP.

Second, Applicants were focused on enhancing competition in the regions and for the directional traffic flows most directly impacted by the merger. The Board’s stated objective in seeking conditions that enhance competition is to mitigate and offset potential harms to competition and service disruptions from the merger. Applicants’ evidence provided in verified statements from Dr. Bailey and Dr. Israel

shows combining UP and NS presents extremely limited scope for potential anticompetitive effects,³¹ but any such effects would be most directly offset by strengthening BNSF and CSX alternatives to a combined UP/NS.

Applicants did not consider including Class II and Class III railroads, other than short lines interchanging traffic solely with UP/NS, BNSF, and CSX, because such traffic would not be comparable to east-west transcontinental movements used to develop Committed Gateway Pricing rates per car mile.

Other gateways. Applicants did not exclude traffic that currently moves through gateways other than Chicago, St. Louis, Memphis, or New Orleans. Such traffic is eligible for Committed Gateway Pricing. However, CGP’s rates per car mile would apply only to future movements through one of those four major gateways.³² Currently, the overwhelming majority of traffic UP interchanges with CSX and NS interchanges with BNSF moves through one of those four gateways.³³ Applicants specifically limited CGP’s applicability to the four major gateways to avoid potentially overwhelming and disrupting interchange operations at lesser-used gateways (*e.g.*,

³¹ See Amended App., Vol. 2 at 12–13, Verified Statement of Dr. Elizabeth M. Bailey (“Bailey VS”) ¶¶ 21–24 (summarizing evidence regarding potential horizontal effects); *id.*, at 186–89; Amended App., Vol. 2 at 186, Verified Statement of Dr. Mark A. Israel (“Israel VS”) ¶¶ 13–14 (summarizing evidence regarding potential vertical effects).

³² Dr. Israel’s model understates CGP’s benefits because it addresses only traffic that moves through one of the four gateways. As Dr. Israel explains, his model does not consider whether traffic currently routed through a different gateway practicably would be routed through one of four gateways in the future to take advantage of CGP. See Israel Supp. VS ¶ 32(v) n.19.

³³ As noted above, Dr. Israel’s initial model addressed only traffic that currently moves through the four gateways; his modeling in his Supplemental Verified Statement shows very little CGP-eligible traffic currently moves through other gateways. See *id.* ¶ 32(v).

BNSF-NS at Birmingham, Alabama; UP-CSX at Salem, Illinois) if CGP's rate-setting mechanics create unexpected or transitory incentives to shift traffic away from the major gateways with the infrastructure to accommodate the traffic to minor gateways without sufficient infrastructure to accommodate a significant surge in traffic.

Applicants cannot reasonably estimate the costs that would be involved in expanding and changing interchange operations at all gateways currently used to interchange UP-CSX and BNSF-NS traffic to accommodate the same levels of traffic that can be accommodated at existing major gateways. However, Applicants believe the capital investment and operational changes required would be substantial, and the changes would create substantial excess capacity at gateways where such investment has never been economically justified.

Intermodal traffic. Applicants excluded intermodal traffic because intermodal traffic is already highly competitive—UP and BNSF, and NS and CSX, generally have intermodal facilities located near each other's facilities—and because the merger will further enhance competition for intermodal traffic by creating new single-line UP/NS routes to compete against BNSF-CSX, UP-CSX, BNSF-NS, and truck alternatives. In addition, UP and NS generally own the intermodal facilities they use, so opening the facilities to CSX and BNSF access via Committed Gateway Pricing would essentially allow CSX and BNSF to use UP/NS's facilities rent-free rather than invest in their own capacity. Finally, intermodal traffic is often subject to distinct pricing structures and service requirements such that pricing for movements over similar distances often will not be reasonably comparable. For

example, intermodal traffic is priced differently based on service type (*i.e.*, expedited or standard), drayage distance between shipper and origin and destination ramps, and directionality of major loaded flow (*i.e.*, head-haul or back-haul). Intermodal traffic is also priced differently at different locations based on ramp capacity, and rates fluctuate with seasonal changes in demand.

Automotive traffic (finished vehicles). Applicants excluded shipments of finished vehicles for the same reasons they excluded intermodal traffic—the traffic is already highly competitive and is subject to distinct pricing structures and service requirements. For example, automotive traffic is generally priced through multi-lane contracts with specific service requirements and volume commitments. In addition, pricing in individual lanes is often designed to account for factors such as ramp capacity and efforts to minimize the costs of repositioning empty equipment. Finally, as with intermodal facilities, UP and NS generally own the automotive facilities they use, so opening the facilities to CSX and BNSF access via Committed Gateway Pricing would essentially allow CSX and BNSF to use UP/NS’s facilities rent-free.

Unit trains. As discussed above, Applicants are expanding Committed Gateway Pricing to include movements in bulk unit trains. Applicants initially excluded unit train shipments because different unit train movements have distinct operating characteristics and thus distinct pricing. Unlike manifest traffic, unit trains are not handled as part of a general network flow, but instead require a dedicated operating plan designed on a shipment-specific basis to account for the infrastructure, volume, and service expectations associated with each movement.

Pricing for unit trains typically reflects these customized operating characteristics. However, on reflection, Applicants concluded the exclusion could be removed to broaden the benefits of CGP.

TIH/PIH traffic. Applicants excluded shipments of Toxic Inhalation Hazard and Poison Inhalation Hazard materials (“TIH/PIH”) from Committed Gateway Pricing for two public interest reasons. First, Applicants play an active role in promoting safe handling of TIH/PIH, including ensuring customers have protocols and procedures in place for the safe handling of shipments by rail. Allowing another railroad to market movements of TIH/PIH over Applicants’ lines without Applicants’ concurrence would reduce Applicants’ ability to address such safety issues, particularly at facilities that had not previously shipped or received TIH/PIH. Second, applying CGP to TIH/PIH would subsidize the production, shipment, and consumption of TIH/PIH, which is contrary to the public interest. Applicants recognize they have a common carrier obligation to transport TIH/PIH, and they recognize TIH/PIH products play important roles in society, but they believe it is contrary to the public interest to subsidize TIH/PIH by capping rates at the 70th percentile level under CGP, which would encourage over-production, over-transportation, and underinvestment in safer alternatives.

Dimensional loads. Applicants excluded shipments of dimensional loads from Committed Gateway Pricing because rates for these shipments are not readily susceptible to pricing under a formulaic mileage-based approach. These loads—*e.g.*, power transformers, large machinery, wind turbine equipment—often exceed normal

clearances in height, weight, and width and involve other advance planning and special handling requirements—for example, special placement in trains, speed restrictions, load securement requirements, and delays to other traffic—that make the cost and thus the appropriate rate for each movement unique. In sum, pricing for movements over similar distances generally will not be reasonably comparable.

SIT facilities. Applicants excluded shipments to and from storage-in-transit (“SIT”) facilities from Committed Gateway Pricing because rates charged for traffic moving to and from such facilities reflect more than the transportation of rail cars. Specifically, rate agreements for traffic that moves through SIT facilities also reflect the guaranteed amount of SIT capacity that will be made available to the customer—that is, customers that want more guaranteed capacity will pay relatively higher transportation rates. As a result, pricing for movements over similar distances often will not be reasonably comparable.

Facilities owned by rail carriers or their affiliates. Applicants’ exclusion of shipments to and from facilities owned by rail carriers or their affiliates was intended to affect shipments to and from railroad-owned transload facilities. Applicants excluded shipments to and from railroad-owned transload facilities for four reasons. First, Applicants had the same concern regarding rent-free use of their facilities that they had regarding intermodal and automotive traffic. Second, most railroad-owned transload facilities are designed to handle only certain commodities, so it makes no sense to create rates that would permit movements to facilities that cannot handle them. Third, as with intermodal facilities, rates to transload facilities

can vary significantly depending on the availability of capacity, so pricing for movements over similar distances often will not be reasonably comparable. Finally, UP charges separately for transloading services, but NS includes the costs in its rail rates, which is another reason why pricing for movements over similar distances will not be reasonably comparable.

EC-2 For the proposed time limitation of CGP, (a) address the extent to which any harms of the Transaction, which CGP may be intended to offset, are permanent; (b) applying Israel’s model, explain the selection of CGP’s termination date on public interest grounds, factoring in any potential consumer surplus from extending the program; and (c) address whether the proposed time limitation of CGP reduces the net benefits of the Transaction as compared to a longer duration or permanent condition.

Under Applicants’ proposal, Committed Gateway Pricing would remain in place until the end of the oversight period in this proceeding. Applicants welcome the opportunity to clarify why they believe a time limitation should apply to CGP.

1. Response to EC-2(a)

The harms Committed Gateway Pricing is intended to address are transitory, at least in large part. As discussed above, CGP is intended to address the statement in the Board’s major merger rules that Applicants should propose conditions that enhance competition to offset “potential harms” from “anticompetitive effects that would be difficult to mitigate through appropriate conditions”—in particular, the “loss of geographic competition”—and “transitional service disruptions might temporarily negate any shipper benefits.” 49 C.F.R. §§ 1180.1(c) & (d).

Applicants have committed to mitigating through “appropriate conditions”—that is, direct and proportional conditions—most, if not all, potential merger-related competitive harms. Applicants have committed to preserve access to 2-to-1 shipper

facilities and build-in/build-out options.³⁴ Applicants have also committed to keep major gateways open on commercially reasonable terms and not create any new regulatory bottlenecks.³⁵

Applicants also carefully considered potential competitive harms from the loss of geographic competition using tools employed in prior merger proceedings and found no potential for material harm.³⁶

Applicants therefore focused on the second “potential harm” that motivated the Board to request proposed conditions to enhance competition—transitional service disruptions—which are transitory by definition.³⁷

³⁴ See Amended App., Vol. 1 at 347, Joint Verified Statement of Kenny Rocker and Claude “Ed” Elkins (“Rocker/Elkins VS”) ¶ 161.

³⁵ See *id.*, Rocker/Elkins VS ¶ 162. As discussed above, Applicants have extended their access-preservation commitment to 3-to-2 shipper facilities, which further reduces the potential scope of unremedied competitive harm.

³⁶ See Amended App., Vol. 2 at 85, Bailey VS ¶ 181, Ex. 14; *id.* at 86, Bailey VS ¶ 184, Ex. 15. Dr. Bailey also performed an alternative analysis at the 7-digit STCC level, and only 18,258 carloads remained flagged as showing a potential for competitive harm. See *id.* at 87, Bailey VS ¶ 187, Ex. 16. By comparison, according to Dr. Israel’s modeling, 257,971 carloads would be eligible for CGP and 103,676 carloads would potentially immediately benefit under Applicants’ expanded proposal for CGP (because their rates exceed CGP’s 70th percentile rate). See Israel Supp. VS at ¶ 34, Fig. 8. Comparing car counts does not provide an apples-to-apples comparison, however, because Dr. Bailey’s analysis flags movements where there is a potential for competitive harm, while CGP would provide certain shippers with an immediate, concrete rate reduction.

³⁷ Applicants also directly and proportionately addressed this potential harm by proposing an arbitration program that provides customers with a voluntary means of resolving disputes concerning service during the service integration period. See Amended App., Vol. 2 at 1139, Turner VS, App. B. As discussed above, Applicants are also directly and proportionally addressing this potential harm by committing to a Targeted Access Program through which customers can seek access relief to address merger-related service disruptions.

Applicants agree that if the record in this proceeding demonstrates that the standard tools used in past mergers to detect the degree of lost geographic competition were insufficient, such a finding might justify extending the time limitation on Committed Gateway Pricing. Development of such a record could occur in this proceeding or during the oversight period where customers could bring actual evidence of lost geographic competition.³⁸ Applicants' proposal to extend CGP to the end of the oversight period will provide customers an abundance of time to bring forward any actual evidence of lost geographic competition.

However, geographic competition is not static. 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.³⁹ 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.

2. Response to EC-2(b)

Dr. Israel's model does not address the selection of Committed Gateway Pricing's termination date. Dr. Israel performed an analysis of CGP to assure that any upward pressure CGP might place on prices in the input set (*i.e.*, the movements

³⁸ As discussed below, Applicants believe the Board should revisit CGP in the event of a merger between BNSF and CSX even if the UP/NS oversight period has not expired.

³⁹ See Supplemental Verified Statement of Dr. Elizabeth M. Bailey ("Bailey Supp. VS") ¶ 23.

used to set CGP rates) are offset by the benefits to customers in the application set (*i.e.*, the movements to which CGP rates will apply). Dr. Israel’s model does not attempt to account for the public-interest implications of extending CGP.

Applicants believe there are strong public-interest considerations that support a time limitation on Committed Gateway Pricing. CGP is a regulatory price control—it deliberately sets rates between sole-served customers and major gateways at the 70th percentile of market rates for comparable traffic. As Dr. Israel explains in his Supplemental Verified Statement, there are significant, well-recognized, long-term concerns with price caps; namely, they distort market signals, causing misallocation of resources and investment. Shippers and customers paying below-market rates will be incentivized to produce and consume inefficiently high amounts of affected goods. Railroads transporting goods for below-market rates will not be incentivized to invest in the assets needed to transport the goods. The resulting patterns of overproduction and underinvestment are not in the public interest. Placing a time limitation on CGP helps limit concerns about the long-term effects of interfering with market signals.⁴⁰

3. Response to EC-2(c)

Applicants believe the proposed time limitation of Committed Gateway Pricing increases the net benefits of the proposed transaction as compared to a longer duration or permanent condition. The proposed transaction is a market-driven

⁴⁰ See Israel Supp. VS at ¶¶ 51–53. To be clear, these potentially harmful effects are not a feature unique to CGP. Requiring applicants to create or enhance competition where the competitive marketplace behavior has not created or enhanced competition will produce the same types of distortions that are inconsistent with the public interest. Such requirements result in regulators choosing winners and losers rather than leaving the marketplace to determine rates and drive investment decisions.

response to conditions in the transportation market. CGP is a non-market-based component of the transaction: it is driven by a regulatory requirement. Applicants believe CGP’s benefits to shippers—which will increase the costs of the transaction to Applicants—will be a windfall to shippers: the benefits from the expanded CGP program will be far larger than the non-transitory competitive harms from the proposed transaction. Applicants therefore believe the harms from the market-distorting effects of extending CGP’s duration would outweigh the benefits of extending CGP’s price cap. In his Supplemental Verified Statement, Dr. Israel concludes that a CGP program with a fixed end date “provides a balance” and “helps to preserve investment incentives, in order to be able to serve customers in the future.”⁴¹ At the same time, Applicants’ proposal contemplates extending CGP (perhaps for specific facilities or commodities) if shippers bring forward actual evidence of harm from lost geographic competition.

Applicants believe there is one other potential development that would require reevaluating the duration of Committed Gateway Pricing: the creation of a second American transcontinental railroad through the merger of BNSF and CSX. As discussed below, Applicants believe their CGP proposal might interact with a reciprocal program adopted by BNSF/CSX to further magnify competition for transcontinental movements between sole-served shipper facilities, but the results of such an analysis will likely depend on market conditions at the time of a BNSF/CSX

⁴¹ See Israel Supp. VS ¶ 53.

merger and other conditions imposed to remedy potential anticompetitive harms from that transaction.⁴²

EC-3 For the set of carloads identified as eligible for CGP but not identified as potentially benefitting from CGP, quantify any potential harm and discuss whether and how the design of CGP maximizes net benefits for CGP-eligible traffic.

Committed Gateway Pricing would not harm carloads identified as eligible for CGP but not identified as potentially immediately benefitting from application of CGP. CGP will either benefit eligible carloads or have no impact on their rates.⁴³

With regard to maximizing net benefits for Committed Gateway Pricing-eligible traffic, Applicants did not design CGP to maximize the net benefits for such traffic. Designing CGP to maximize benefits for CGP-eligible traffic would be unreasonable: maximizing benefits for CGP-eligible traffic would mean setting the CGP rate per mile to zero—that is, requiring UP/NS to provide free transportation for CGP-eligible traffic—or even requiring UP/NS to pay CSX and BNSF to haul traffic to and from sole-served locations on UP/NS.

Applicants designed Committed Gateway Pricing to enhance competition for sole-served shippers who appear to have the fewest other competitive options. That is, CGP’s use of the 70th percentile is designed to provide benefits to customers with the highest rates in relation to comparable traffic, while preserving UP/NS’s ability to engage in demand-based differential pricing for most traffic. As discussed in the Amended Application, Applicants selected a percentile higher than the 50th

⁴² See *id.* ¶¶ 36–50.

⁴³ See *id.* ¶ 54.

percentile used in the I-5 Agreement, because the I-5 Agreement involved a reciprocal exchange of rights between UP and BNSF.⁴⁴ Applicants did not perform any modeling or analysis to determine whether the 70th percentile produces results that would more precisely serve the purposes expressed in 49 C.F.R. § 1180.1(d) than the 75th percentile or the 65th percentile because there is no established standard for determining how much enhanced competition is necessary to satisfy the Board, particularly given the significant competitive enhancement the merger itself will create by expanding the availability of single-line service from coast to coast.⁴⁵

EC-4 Discuss the extent to which Applicants propose any specific measures (e.g., specific service benchmarks with clear timeframes) against which CGP service performance will be measured relative to comparable single-line traffic moving in UP/NS service, and detail any specific enforcement mechanisms to ensure non-discriminatory handling of traffic moving under CGP.

Applicants have not proposed measuring Committed Gateway Pricing service performance relative to single-line traffic. CGP would not be single-line service and would not be as fast or reliable as single-line service. To be clear, CGP was not intended to create competition with post-merger single-line traffic. CGP was intended to create a new competitive option for customers currently served using interline service.

⁴⁴ See Amended App., Vol. 1 at 377, Verified Statement of Katherine N. Novak (“Novak VS”) ¶ 11.

⁴⁵ Cf. *Major Rail Consolidation Procedures*, 5 S.T.B. at 607 (Commissioner Burkes, commenting) (“The decision leaves it to the Board’s discretion as to what constitutes enhanced competition. In other words, the Board will know enhanced competition when it sees it.”).

Rather than propose specific service benchmarks for measuring Committed Gateway Pricing service performance, Applicants have expressly committed to nondiscriminatory treatment of traffic moving under CGP. Applicants have committed that traffic UP/NS handles under CGP “will be handled without any discrimination in promptness, quality of service, or efficiency in favor of comparable traffic moving in UP/NS service.”⁴⁶ Applicants’ service commitment is identical to the nondiscrimination standard contained in UP’s settlement agreement with BNSF in the Union Pacific/Southern Pacific merger⁴⁷ and CN’s settlement agreement with BNSF in the CN/Duluth, Missabe and Iron Range merger,⁴⁸ and it is essentially identical to the service standard in UP’s I-5 Agreement with BNSF, which was also part of the Union Pacific/Southern Pacific merger.⁴⁹

As a practical matter, rail cars moving on UP/NS under Committed Gateway Pricing will be guaranteed nondiscriminatory treatment, because they will move in

⁴⁶ Amended App., Vol. 1, at 390, Novak VS ¶ 43.

⁴⁷ See *Union Pac. Corp.—Control & Merger—S. Pac. Rail Corp.*, 1 S.T.B. 233, 260–61 (1996) (“Recognizing that most of its operations under the agreement will be conducted pursuant to trackage rights, BNSF notes that the agreement requires BNSF’s trains to be given equal dispatch without any discrimination in favor of comparable UP/SP trains . . .”).

⁴⁸ See *Canadian National, et al.—Control—Duluth, et al.*, 7 S.T.B. 526, 562 (2004) (“CN will provide BNSF trains with equal dispatch without any discrimination in promptness, quality of service, or efficiency in favor of comparable CN traffic.”).

⁴⁹ See Workpaper “I-5 Agreement.pdf,” § 3 (“BNSF . . . shall accept, handle, switch and deliver traffic moving under this Agreement without any discrimination whatsoever, including, but not limited to, in promptness, quality of service or efficiency, for both loaded and empty equipment, in favor of comparable traffic moving in BNSF’s account.”).

If the Board believes that the I-5 Agreement’s nondiscrimination standard is meaningfully different from and superior to the standard to which Applicants have committed, Applicants are willing to commit to the I-5 Agreement’s standard.

the same trains as UP/NS traffic that is not moving under CGP (with the exception of traffic moving in bulk unit trains). That is, unlike foreign trains using trackage rights, UP/NS will transport rail cars moving under CGP together with and therefore indistinguishable from other traffic moving across its network.

However, if BNSF, CSX, or affected shippers believe UP/NS is not complying with Committed Gateway Pricing’s nondiscrimination requirement, they could petition the Board to enforce the CGP condition. Alternatively, Applicants would agree to arbitrate any dispute under the American Arbitration Association’s Commercial Arbitration Rules.⁵⁰

Further, as a result of the Board’s new reporting requirements adopted in Ex Parte No. 787, UP/NS will be collecting standardized, facility-level metrics for original estimated time of arrival (“OETA”) and industry spot and pull (“ISP”).⁵¹ Applicants would be willing to make that facility-level data available to test compliance with the nondiscrimination requirement. However, Applicants are not proposing to restrict the evidence that could be offered to assert or defend against service discrimination claims, and they are not proposing any safe harbor protection against claims. If parties believe Applicants are failing to provide nondiscriminatory treatment, they are free to use any evidence they choose in petitioning the Board.

⁵⁰ UP’s consistent experience over the 30 years since the Union Pacific/Southern Pacific merger is that other parties are unwilling to arbitrate issues regarding enforcement of merger conditions when they can seek relief from the Board.

⁵¹ *See Updating Class I Rail Carrier Reporting Requirements*, EP 787 (STB served May 8, 2026).

EC-5 For sole-served shippers served by either UP or NS on a single-line basis, (a) quantify, by commodity group and Business Economic Area, the amount of traffic that is potentially disciplined by geographic competition; and (b) explain the extent to which any proposed conditions (e.g., CGP, gateway protections, access remedies) provide a meaningful offset for any loss in any geographic competitive constraint for this traffic.

In the Amended Application, Dr. Bailey showed the proposed transaction will have no meaningful impact on geographic competition. Applying methods used in previous merger proceedings, she first used “50/10 screens” to identify for further review traffic for which a merger of UP and NS could potentially reduce geographic competition.⁵² She then performed a more detailed analysis of the options available to shippers and receivers to assess whether competitive effects were likely using a version of “Critical Loss Analysis.”⁵³ In her analysis, Dr. Bailey found that none of the traffic that triggered the screen for further examination was likely to experience competitive harm through a loss of geographic competition.⁵⁴

The Board’s Request EC-5 focuses on a subset of the traffic that Dr. Bailey examined in her original analysis—traffic from sole-served shippers served by either UP or NS on a single-line basis—and asks whether the proposed conditions provide offsets for any loss in any geographic competitive constraint for this traffic. And while Dr. Bailey’s original analysis showed none of this traffic is at risk for harm, her

⁵² See Amended App., Vol. 2 at 79–80, Bailey VS ¶¶ 162–68 & App. G; see also *Canadian Pac. Ry. Ltd.—Control—Kan. City S.*, App. Vol. 2 at 56, Majure VS ¶ 79 (“The initial screen identifies for further review origin-commodity pairs and destination-commodity pairs for which a CP and KCS combination could potentially reduce ‘destination competition’ or ‘source competition.’”).

⁵³ See Amended App., Vol. 2 at 80–84, Bailey VS ¶¶ 167–80 & App. G; see also *Canadian Pac. Ry. Ltd.—Control—Kan. City S.*, App. Vol. 2 at 56, Majure VS ¶ 92.

⁵⁴ See Amended App., Vol. 2 at 84–87, Bailey VS ¶¶ 181–88.

supplemental analysis shows the proposed conditions provide additional protections against potential harm, as discussed below.

1. Response to EC-5(a)

For sole-served shippers served by either UP or NS on a single-line basis, the Supplemental Verified Statement of Dr. Bailey quantifies, by commodity group and Business Economic Area, the amount of traffic that is potentially disciplined by geographic competition—that is, Dr. Bailey quantifies the sole-served, single-line traffic within the broader set of movements identified by her original 50/10 screens.⁵⁵ Dr. Bailey’s supplemental analysis shows that very little traffic from sole-served shippers served by either UP or NS on a single-line basis is traffic for which the merger could potentially reduce geographic competition.

Of approximately 33,370 carloads at flagged origin-commodity pairs, 10,655—fewer than one in three—involve sole-served shippers on single-line UP or NS movements.⁵⁶ The figures are similarly modest on the destination side, where of approximately 75,575 flagged carloads, only 6,341 involve sole-served shippers on single-line movements.⁵⁷ The universe of potentially affected sole-served, single-line traffic is thus considerably smaller than the already-limited set of movements the 50/10 screen identified as warranting further review.

⁵⁵ Consistent with the Board’s instructions in Decision No. 21, Dr. Bailey’s analysis includes shippers served by a Class II or Class III railroad interchanging solely with UP or NS.

⁵⁶ See Bailey Supp. VS ¶ 39, Ex. 4.

⁵⁷ See *id.* ¶ 39, Ex. 5.

And again, Dr. Bailey’s original analysis showed that all such traffic moves in origin-commodity and destination-commodity pairs in which shippers and receivers have sufficient options to reallocate shipments to different destinations or to obtain shipments from other origins, so shippers could avoid potential price increases from any merger-related reduction in geographic competition.

2. Response to EC-5(b)

Dr. Bailey’s supplemental analysis also addresses the extent to which Applicants’ proposed conditions would provide a meaningful offset for any loss in geographic competition for traffic from sole-served shippers served by either UP or NS on a single-line basis that is potentially disciplined by geographic competition. As Dr. Bailey explains, the calculations requested in EC-5 do not contradict the results of her analysis of between-corridor competition in the Amended Application. They are instead a supplementary form of further analysis that specifically addresses whether the proposed merger conditions would help address potential geographic competition concerns relating to sole-served single-line traffic.⁵⁸ Dr. Bailey’s results show the open gateway commitment and Committed Gateway Pricing would provide additional protection for much of the sole-served, single-line traffic identified in her analysis. In other words, much of the traffic moving in single-line service could instead move over routes that would be subject to the open gateway commitment or routes on which the traffic would be eligible for CGP.⁵⁹ Her results also show that substantial volumes of

⁵⁸ See *id.* ¶¶ 22, 45.

⁵⁹ See *id.* ¶ 39, Exs. 4 & 5.

other traffic in the same origin-commodity or destination-commodity pair currently moves over routes that would be subject to the open gateway condition or routes on which the traffic would be eligible for CGP.⁶⁰ These results show the merger conditions would help address potential geographic competition concerns relating to sole-served single-line traffic.

More generally, Applicants' new single-line service and proposed Committed Gateway Pricing condition will create a massive enhancement of competition that will substantially strengthen geographic competition in particular. Single-line service will make it possible for receivers to source products from distant markets that were not viable origins with interline service, creating additional competition among suppliers and transportation providers. Similarly, single-line service will make it possible for shippers to send products to distant markets that were not viable destinations with interline service, creating additional competition among receivers and transportation providers. The merger will create an unprecedented expansion of single-line service, transforming more than 88,000 county-to-county lanes from interline to single-line service and expanding geographic options for the thousands of shippers in the markets served by those lanes.⁶¹

⁶⁰ See *id.* ¶ 46, Exs. 6 & 7.

⁶¹ See Amended App., Vol. 1 at 293, Rucker/Elkins VS ¶ 46; Amended App., Vol. 2 at 435, Verified Statement of David T. Hunt ("Hunt VS") § 4.2.3, Ex. 4-13; see also *Union Pac. Corp.—Control—Mo. Pac. Corp.*, 366 I.C.C. 456, 490–91 (1982) (merger will expand options for grain and coal shippers by giving them single-line access to ports); *Norfolk S. Corp.—Control—Norfolk & W. Ry.*, 366 I.C.C. 173, 195–96, 278–80 (1982) (merger increases geographic options for shippers).

The unprecedented expansion of geographic competition through the creation of single-line service will particularly benefit shippers in the watershed. Shippers in watershed locations east of the Mississippi will have single-line access to markets on the West Coast, creating new competition with shippers located in the western United States; shippers in watershed locations west of the Mississippi will have single-line access to markets on the East Coast, creating new competition with shippers located in the eastern United States. Similarly, receivers in the watershed will see their competitive sourcing options increase because they will have single-line access to origins on both coasts.

Applicants' new single-line service will also enhance geographic competition internationally. Expansion of single-line service from American ports will enhance geographic competition with Canadian ports and Canadian transcontinental railroads that allow Canadian companies to profit from freight that is ultimately bound for U.S. markets. Expansion of single-line service to American ports will reduce transportation costs and unlock access to new export markets, increasing opportunities for American manufacturers, helping rebalance the nation's trade relations and reduce trade deficits.

Applicants' expanded Committed Gateway Pricing condition will also enhance geographic competition. As discussed above, the expanded CGP will potentially create thousands of new haulage arrangements, allowing BNSF to extend its reach east to points served by the legacy NS, and allowing CSX to extend its reach west to points served by the legacy UP. As a result, shippers at hundreds of locations on the legacy

NS will gain new competitive options for shipping products to BNSF-served destinations or receiving products from BNSF-served origins, and shippers at hundreds of locations on the legacy UP will gain similar competitive options regarding locations on CSX.

In sum, the competition-enhancing effects of the UP/NS merger, including the proposed merger conditions, would not merely offset any potential loss of geographic competition (which Dr. Bailey found would not occur), but would produce an unprecedented expansion of geographic competition.

EC-6 Discuss the extent to which CGP would enable shippers to have competitive choice to help reduce or avoid use of the merged carrier during service disruptions, should transitional service problems occur.

As discussed above, Applicants are proposing a new access-related condition to provide an additional remedy for transitional service problems. The Targeted Access Program would enable shippers to reduce use of the merged carrier during service disruptions, should transitional service problems occur. However, the new condition would not enable shippers to avoid use of the merged carrier, because the merged carrier would still provide first-mile or last-mile service to shipper facilities.

Regarding the specific question in Request EC-6, Applicants’ Committed Gateway Pricing condition, as originally proposed, would not have enabled shippers to help reduce or avoid use of the merged carrier should transitional service problems occur. Applicants proposed CGP precisely because the Board’s rules state that Applicants should propose conditions designed to enhance competition to account for certain types of potential merger-related harms, including “transitional service disruptions.” 49 C.F.R. § 1180.1(d). If other conditions directly remedy harms from

transitional service disruptions—as is now the case with Applicants’ proposed access-related condition—less justification exists for competition-enhancing conditions.

In fact, Applicants had proposed a different condition designed to remedy more directly any harms from transitional service disruptions: Applicants’ proposed arbitration system for service failures established a streamlined arbitration process for handling claims related to failure to provide reasonable service due to transitional service problems.⁶²

Unlike Applicants’ Committed Gateway Pricing condition as originally proposed, Applicants’ proposed expansion of CGP *would* give some shippers an additional competitive choice to help reduce use of the merged carrier. By expanding CGP eligibility to moves where shippers on one end are not sole-served (*i.e.*, where shippers are served BNSF and UP/NS, or CSX and UP/NS), Applicants have created new options for shippers that might otherwise use UP/NS single-line service. For example, traffic moving from a sole-served origin on the legacy UP to a destination served by CSX and the legacy NS could move under CGP from UP to the gateway, then on CSX to the destination, rather than in single-line service on UP/NS. However, as discussed above, Applicants have now addressed even more directly the ability of shippers to avoid use of the merged carrier during service disruptions, should transitional service problems arise, by proposing a specific access-related condition—the Targeted Access Program.

⁶² See Amended App., Vol. 2 at 1139, Turner VS, App. B.

III. Access: 2-to-1 and 3-to-2 Shipper Facilities, Short Lines, and Ports

A. Introduction

In the original Application, Applicants addressed access to 2-to-1 and 3-to-2 shipper facilities just like applicants in prior merger proceedings: they committed that all shipper facilities with access to the two merging Class I railroads and no other Class I railroad would continue to have access to two Class I railroads. Applicants recognized that other parties could file comments claiming competitive harms would arise at 3-to-2 facilities, but they expected to address any such claims and specific facts presented in their reply comments, like applicants in prior cases.⁶³

Additionally, when Applicants addressed comments on the original Application by specifically identifying 2-to-1 and 3-to-2 shipper facilities in the Amended Application, they counted Class II and Class III railroads that connected to other Class I railroads in classifying facilities as 2-to-1 and 3-to-2, consistent with recent precedent in merger proceedings.⁶⁴

Regardless of whether Class II and Class III railroads are counted, UP and NS serve very few 2-to-1 and 3-to-2 shipper facilities. To avoid unnecessary disputes about access and competitive harms, Applicants are now asking the Board to impose

⁶³ See, e.g., *Canadian Nat’l Ry.—Control—Iowa N. Ry.*, FD 36744, at 21–24 (STB served Jan. 14, 2025) (rejecting CPKC request for access to Quaker Oats facility).

⁶⁴ See *id.* at 7–11 (discussing the competitive benefits provided by a Class III short line that connects to multiple Class I railroads). In Decision No. 21, the Board states that its major merger rules require applicants to list 2-to-1 and 3-to-2 shippers. See Decision No. 21 at 23. The major merger rules do not mention 2-to-1 or 3-to-2 shippers. The major merger rules require applicants to list “points where the number of serving railroads would drop from two to one and from three to two,” and provide that applicants “may define points as individual stations or as larger areas.” 49 C.F.R. § 1180.7(b)(2).

a condition requiring them to grant access to an additional Class I railroad through trackage rights, haulage, ratemaking authority, or other mutually acceptable means to shipper facilities that (i) were open to both UP and NS, whether via direct service or via reciprocal switching, joint facility, or other arrangements when the Merger Agreement was executed, and (ii) were open to no other Class I railroad or only one other Class I railroad, whether via direct service or via reciprocal switching, joint facility, or other arrangements when the Merger Agreement was executed, unless (iii)(a) UP and NS have no legal ability to grant access to an additional Class I railroad, or (b) the Board determines additional Class I railroad access is unwarranted.⁶⁵

Applicants list 2-to-1 and 3-to-2 shipper facilities and describe their proposals for ensuring pre-merger competition is maintained in response to Request A-1. In accordance with Decision No. 21, Applicants do not include access via a Class II or Class III railroad that connects to a Class I railroad when listing 2-to-1 and 3-to-2 shipper facilities. *See* Decision No. 21 at 23 n.27. Also in accordance with Decision No. 21, Applicants identify the shipper facilities that would face a reduction in “direct access” to UP and NS. *See id.* at 27. However, as described above, Applicants’

⁶⁵ To further minimize the possibility of unnecessary disputes, Applicants borrowed the terms “open to both UP and NS, whether via direct service or via reciprocal switching, joint facility, or other arrangements” and “through trackage rights, haulage, ratemaking authority, or other mutually acceptable means” from the UP-BNSF settlement agreement that the Board imposed as a condition on the Union Pacific-Southern Pacific merger by the Board. *See Union Pac. Corp.—Control & Merger—S. Pac. Rail Corp. (General Oversight)*, 5 S.T.B. 1173 (2001).

proposed condition would apply even where shipper facilities do not have direct access to both UP and NS.⁶⁶

As discussed in response to Request A-1, one 2-to-1 facility and six 3-to-2 shipper facilities are not served directly by *either* UP or NS. In those instances, another railroad serves the facilities directly, and UP and NS have access only via reciprocal switching or some other commercial arrangement. Applicants are not proposing a remedy for these facilities for two reasons. *First*, UP and NS have no legal authority to grant an additional Class I railroad access to such facilities. That absence of legal authority is not merely a technical obstacle to crafting a remedy—it reflects a fundamental characteristic of the competitive arrangement at these facilities that bears on whether a remedy is warranted in the first place. At each facility, UP’s and NS’s access exists solely because the directly serving carrier has chosen to open the facility to reciprocal switching. That access could be withdrawn tomorrow by the directly serving carrier. As a result, the facility was not guaranteed continued access to both UP and NS before the merger, and any sort of permanent remedy would not merely preserve competition, but would place the facility in a better position than it occupied before the merger.⁶⁷

⁶⁶ No shipper facility has direct physical access to UP, NS, and another Class I railroad. To avoid additional disputes or possible misunderstandings, Applicants are making a commitment that encompasses shipper facilities that were open to both UP and NS, whether via direct service or via reciprocal switching, joint facility, or other arrangements when the Merger Agreement was executed (except where UP and NS have no legal ability to grant access to an additional Class I railroad).

⁶⁷ *See, e.g., Canadian Pac. Ry. Ltd.—Control—Kan. City S.*, FD 36500, at 21 (STB served Mar. 15, 2023) (“The Board ‘will not impose a condition that would put its proponent in a better position than it occupied before the consolidation.’” (quoting *Burlington N. Inc.—Control & Merger—Santa Fe Pac. Corp.*, 10 I.C.C.2d 661, 730

Second, as Dr. Bailey explains in her Supplemental Verified Statement, traffic data show the facilities use UP and NS to serve distinct, non-overlapping geographic markets, so the merger will not practically reduce the facilities’ Class I alternatives.⁶⁸

Applicants wish to be clear that they would not object if the directly serving carrier at any of these facilities were to expand switching access to additional Class I railroads as a matter of its own commercial judgment. What Applicants do respectfully resist is any suggestion that they bear responsibility for remedying an access limitation that was present before the merger, that they did not create, that they have no legal authority to cure, and that remains within the control of a third party who is not an applicant before the Board.

Applicants have agreed with the owner of two 2-to-1 shipper facilities at issue to attempt to enter into a trackage rights agreement that grants BNSF access to those facilities. Applicants have also committed to the owner of one 2-to-1 facility to attempt to enter into a haulage agreement that grants CN access to the facility. For the other facilities, Applicants propose that the Board require railroads that want to provide access to 2-to-1 or 3-to-2 facilities to file comments or responsive applications explaining why they are suitable candidates to serve one or more of the facilities at issue. The Board would then identify one or more acceptable railroads in connection

(1995)); *CSX Corp.—Control & Operating Leases/Agreements—Conrail Inc.*, 3. S.T.B. 196, 278 (1998) (stating that a condition generally will not be imposed to ameliorate longstanding problems not created by the transaction) (citing *Burlington Northern, Inc.—Control & Merger—St. Louis-San Francisco Ry.*, 366 I.C.C. 862, 952 (1983)).

⁶⁸ See Supplemental Verified Statement of Dr. Elizabeth M. Bailey (“Bailey Supp. VS”) ¶ 12 & n.21.

with each facility and order Applicants to negotiate an access agreement with one of those acceptable railroads.⁶⁹

As discussed above, UP has entered into a settlement agreement with CN that addresses access to 2-to-1 and 3-to-2 shipper facilities. Under the agreement, UP will select CN to provide access to such shipper facilities where the Board requires Applicants to grant access to an additional Class I railroad, the Board finds CN is a suitable candidate to provide that access, and it is operationally and commercially feasible for CN to provide access.

Whether the Board identifies a specific railroad to provide additional access or allows Applicants to select CN or negotiate with multiple candidates, the Board should make clear that it “expect[s] the parties to reach agreement on all necessary terms and to request [the Board’s] intervention only upon their failure to do so.”⁷⁰ The Board should require the parties to enter into access agreements within one month of the date of service of its decision authorizing the merger. The Board should provide that if the parties fail to reach agreement on the necessary terms, Applicants may consummate their merger, as long as they agree to provide access while disputed terms are being resolved by the Board.

Applicants anticipate that other Class I railroads might not express interest in serving some or all of the shipper facilities on Applicants’ list because they recognize the facilities would not experience any merger-related loss of competition and thus

⁶⁹ The ICC used a similar process in the UP-MKT merger. *See Union Pac. Corp.—Control—Mo.-Kan.-Tex. R.R.*, 4 I.C.C.2d 409 (1988).

⁷⁰ *Id.* at 456.

they would have no opportunity to capture new traffic. If no Class I railroad expresses interest in obtaining access to a facility on the list, Applicants should not be required to establish a remedy before consummating the merger, but the shippers should have the right to a remedy if they find a willing Class I railroad in the future.

B. Specific Responses

A-1 List each 2-to-1 and 3-to-2 shipper facility—including each shipper facility that would face a 2-to-1 or 3-to-2 reduction in direct access to Class I carriers—and, for each facility listed, address how pre-merger competition among carriers will be maintained.

Applicants list each 2-to-1 and 3-to-2 shipper facility below. As discussed above, Applicants list all 2-to-1 and 3-to-2 shipper facilities, regardless of whether they would face a reduction in “direct” access to a Class I railroad because of the merger. Applicants also describe their proposal for maintaining pre-merger competition among railroads for each facility listed. Applicants welcome other proposals from the affected shippers or railroads that seek to provide additional access to those shippers.

1. 2-to-1 Shippers

- AgRail LLC (Bloomington, IL – served directly by UP and NS) — Applicants propose to provide haulage to CN between Bloomington and East St. Louis.
- Hillsboro Energy LLC (Hillsboro, IL – served directly by UP and NS) — Applicants propose to provide trackage rights to BNSF between Hillsboro and Sorento, Illinois.
- Macoupin Energy LLC (Monterey Mine, IL – served directly by UP and NS) — Applicants propose to provide trackage rights to BNSF between Monterey Mine and Litchfield, Illinois.
- Midwest Salt LLC and US Glu-Lam Inc. (Chicago, IL – served directly by NS, switching restricted to UP) — Applicants propose to open both

shippers to switching for all Class I railroads in the Chicago switching district.⁷¹

- Milano Metals Recycling/Railcar Services (Mt. Vernon, IL – served directly by NS, UP, and Evansville Western Railway (“EVWR”)) — Applicants propose to grant CSX haulage access from Princeton, Illinois, to Mt. Vernon, Illinois.
- Titan Tire Corp. (Des Moines, IA – served directly by NS, open to switching for UP and IAIS) — Applicants propose to open the shipper to switching for BNSF.
- Stewart Grain Company, Inc. (Marshfield, IN – served directly by Kankakee, Beaverville & Southern Railroad (“KBSR”), open to switching for NS and UP)⁷² — Neither UP nor NS serves Stewart Grain directly, so Applicants do not have the right to allow an additional railroad to serve the facility. Moreover, the evidence shows {{
}} so a remedy is not necessary, as discussed in response to Request A-2.

2. *3-to-2 Shippers*

- Bunge Milling/Grain Craft Corn LLC, Inc.; Reg Danville LLC/Renewable Energy Group Inc.; and The Quaker Oats Co. (Danville, IL – served directly by NS, open to switching for UP, CSX, and KBSR) — UP serves these shippers using CSX-provided haulage from Chicago. Applicants propose to negotiate a commercial agreement with CN under which CN would give UP/NS traffic in Chicago that would move using the CSX-provided haulage. To allow UP/NS to effectuate this remedy, the Board would need to override a restriction in the UP-CSX haulage agreement (absent consent from CSX).⁷³ Applicants believe such an arrangement would be more attractive to other Class I railroads than trackage or haulage rights over NS.
- Mighty River Recycling (Federal, IL – served directly by NS and UP, open to switching for CPKC via UP) — Applicants propose to provide reciprocal switching to CN via a connection with UP/NS in St. Louis.
- Edmund Allen Lumber (Momence, IL – served directly by NS, open to switching for UP and accessible to CSX (via a commercial arrangement

⁷¹ As part of the process of reaching out to shippers on this list, Applicants determined that US Glu-Lam is no longer an active business.

⁷² NS has confirmed that SCRS erroneously reports NS access.

⁷³ See Workpaper “Danville TR and Haulage.pdf,” Art. X, § 2.

under which UP operates a joint UP/CSX local train on a joint UP/CSX line through Momence)) — Applicants propose to open the facility to switching by CN and provide haulage to CN from Chicago using the joint UP/CSX local train. Applicants believe such an arrangement would be more attractive to other Class I railroads than trackage or haulage rights over NS.

- Cargill Inc.; CB&I Storage Tank Solutions LLC; Heartland Co-Op; Frontier Forest Products; Wheeler Consolidated (Des Moines, IA – served directly by NS, open to switching for UP, BNSF, and Iowa Interstate Railroad, LLC (“IAIS”)) — For Cargill Inc. and Heartland Co-Op, Applicants propose to admit CN to the arrangement under which BNSF provides NS haulage from St. Louis to Des Moines. UP/NS would then switch the traffic to Cargill Inc. and Heartland Co-Op. To allow UP/NS to effectuate this remedy, the Board would need to override a restriction in the BNSF-NS haulage agreement (absent consent from BNSF).⁷⁴ Applicants believe access via BNSF haulage would best preserve the service option potentially lost in the UP/NS merger, because UP anticipates handling traffic to Des Moines using its line via Chicago.⁷⁵ CB&I Storage Tank Solutions, Frontier Forest Products, and Wheeler Consolidated are on a line currently subject to a joint petition by NS and IAIS seeking exemption from prior approval requirements in connection with the abandonment and discontinuance, respectively, of the line.⁷⁶ Accordingly, Applicants do not believe a remedy is necessary or appropriate to preserve pre-merger competition, as discussed in response to Request A-2.⁷⁷
- Des Moines Industrial LLC (Des Moines, IA – served directly by NS, BNSF, and IAIS, open to switching for UP) — Applicants propose to admit CN to the arrangement under which BNSF provides NS haulage from St. Louis to Des Moines. UP/NS would then switch the traffic to the shipper. To allow UP/NS to effectuate this remedy, the Board would need to override a restriction in the BNSF-NS haulage agreement. As discussed above, Applicants believe access via BNSF haulage would best

⁷⁴ See Workpaper “Des Moines Haulage Agreement.pdf,” Exhibit A (General Conditions) § 7.2.

⁷⁵ See Amended App., Vol. 2 at 717, Verified Statement of Eric Gehringer and John F. Orr (“Gehringer/Orr VS”) ¶ 229.

⁷⁶ See *Norfolk S. Ry.—Abandonment Exemption—in Polk County, IA*, AB 290 (Sub-No. 424X); *Iowa Interstate R.R., LLC—Discontinuance Lease & Operating Authority—in Polk County, Iowa*, AB 414 (Sub-No. 9X).

⁷⁷ As part of the process of reaching out to shippers on this list, Applicants determined that Wheeler Consolidated is no longer an active business.

preserve the service option potentially lost in the UP/NS merger, because UP anticipates handling traffic to Des Moines using its line via Chicago.

- Bituminous Materials and Supply LP and Magellan Midstream Partners LP (Des Moines, IA – served directly by NS and BNSF, open to switching for UP and IAIS) — Applicants propose to admit CN to the arrangement under which BNSF provides NS haulage from St. Louis to Des Moines. UP/NS would then switch the traffic to the shipper. To allow UP/NS to effectuate this remedy, the Board would need to override a restriction in the BNSF-NS haulage agreement. As discussed above, Applicants believe access via BNSF haulage would best preserve the service option potentially lost in the UP/NS merger, because UP anticipates handling traffic to Des Moines using its line via Chicago.
- Alter Trading Corp./Alter Metal Recycling; Archer Daniels Midland Co./ADM Soybean Processing; Bluelinx; Bridgestone Americas Tire Operations LLC; Feed Energy Co./Kru LTD; and Rayner Rinn Scott (Des Moines, IA – served directly by UP, open to switching for NS, BNSF, and IAIS) — Applicants propose to admit CN to the arrangement under which BNSF provides NS haulage from St. Louis to Des Moines. UP/NS would then switch the traffic to the shipper. To allow UP/NS to effectuate this remedy, the Board would need to override a restriction in the BNSF-NS haulage agreement. As discussed above, Applicants believe access via BNSF haulage would best preserve the service option potentially lost in the UP/NS merger, because UP anticipates handling traffic to Des Moines using its line via Chicago.
- General Mills and Heartland Co-Op (Avon, IA – served directly by UP, open to switching for BNSF, NS, and IAIS) — Applicants propose to provide access to CN via haulage over UP.
- Intrinsic Ag LLC; Lineage Logistics LLC; and Merchants White Line Warehousing Inc. (Altoona, IA – served directly by IAIS, open to switching for NS, UP, and BNSF) — Neither UP nor NS serves these facilities directly, so Applicants do not have the right to allow an additional railroad to serve the facilities. Moreover, the evidence shows {} so a remedy is not necessary, as discussed in response to Request A-2.
- Beisser's Inc. (Grimes, IA – served directly by IAIS, open to switching for NS, UP, and BNSF) — Neither UP nor NS serves the facility directly, so Applicants do not have the right to allow an additional railroad to serve the facility. Moreover, this shipper is on a line currently subject to a joint petition by NS and IAIS seeking exemption from prior approval

requirements in connection with the abandonment and discontinuance, respectively, of the line.⁷⁸ Accordingly, Applicants do not believe a remedy is necessary or appropriate to maintain pre-merger competition, as discussed in response to Request A-2.

- USS Granite City Works (Granite City, IL – served directly by NS and UP, open to switching for CPKC and TRRA) — Applicants propose to open this facility to switching for CN in St. Louis.
- Lebanon Chemical Corp. and Viscofan USA Inc. (Danville, IL – served directly by CSX, open to switching for NS and UP) — Neither UP nor NS serves these facilities directly, so Applicants do not have the right to allow an additional railroad to serve the facilities. Moreover, the evidence shows {{
}} so a remedy is not necessary, as discussed in response to Request A-2.

Applicants note that CN identified additional facilities it claimed were 2-to-1 and 3-to-2 shipper facilities.⁷⁹ Below, Applicants explain why those identifications are incorrect.

- Alton Steel, Inc. (Federal, IL) — Alton Steel is no longer in business.⁸⁰
- Helena Agri-Enterprises LLC (Des Moines, IA) — NS confirmed that BNSF's SCRS listing is incorrect and that it does not access this shipper.
- Darling Ingredients Inc. (Des Moines, IA) — BNSF's entry in SCRS shows the facility is served directly by BNSF and open to UP and IAIS, not NS.⁸¹

⁷⁸ See *Norfolk S. Ry.—Abandonment Exemption—in Polk County, IA*, AB 290 (Sub-No. 424X); *Iowa Interstate R.R., LLC—Discontinuance Lease & Operating Authority—in Polk County, Iowa*, AB 414 (Sub-No. 9X).

⁷⁹ See Grand Trunk Corporation's Comments on Completeness of Union Pacific and Norfolk Southern's Amended Application (CN-15), Verified Statement of Dr. Mary Coleman at 7-14.

⁸⁰ See James Marshall, *Alton Steel Shuts After Raw Materials Seized*, Argus Media (Mar. 2, 2026), <https://www.argusmedia.com/en/news-and-insights/latest-market-news/2784274-alton-steel-shuts-after-raw-materials-seized> (last visited July 13, 2026).

⁸¹ See Workpaper “BNSF SCRS Darling Ingredients.pdf.”

A-2 For each 3-to-2 shipper facility, explain why the Board should not remedy a reduction in carriers serving the facility. For each facility for which Applicants maintain no condition should be imposed, detail how any alternative competitive constraint would fully protect against competitive harm from a loss of a competitive intramodal option.

As discussed above, Applicants are asking the Board to impose a condition that would remedy any reduction in the number of Class I railroads serving 2-to-1 and 3-to-2 shipper facilities unless Applicants have no legal authority to grant additional access or unless the Board determines additional Class I railroad access is unwarranted.

There are seven shipper facilities for which Applicants have no legal authority to grant additional access: one 2-to-1 shipper facility and six 3-to-2 shipper facilities.

The 2-to-1 shipper facility is Stewart Grain. As noted above, Stewart Grain is served directly by the KBSR.⁸² KBSR has opened Stewart Grain to switching from NS and UP, but KBSR also connects to CN and CSX.⁸³ {{

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Of the six 3-to-2 shipper facilities, two are directly served by CSX. Those two facilities are Lebanon Chemical and Viscofan USA, both in Danville, Illinois. CSX has

⁸² SCRS inaccurately states that NS has direct access to Stewart Grain.

⁸³ See *Kankakee, Beaverville & Southern Railroad*, <https://www.kbsrailroad.com/> (last visited July 14, 2026).

⁸⁴ See Bailey Supp. VS ¶¶ 8–9.

opened the two facilities to switching from NS and UP. {}

}}⁸⁵

The four remaining 3-to-2 facilities are served by IAIS. The four facilities are Intrinsic AG LLC, Lineage Logistics LLC, and Merchants White Line Warehousing, in Altoona, Iowa, and Beisser’s Inc. in Grimes, Iowa. IAIS has opened the facilities to switching for BNSF, NS, and UP, and IAIS also connects to CN, CPKC, and CSX.⁸⁶

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Finally, Applicants note that four facilities are on lines that are currently subject to a petition seeking exemption from prior approval requirements in connection with the abandonment and discontinuance of the lines. Those facilities are CB&I Storage Tank Solutions, Frontier Forest Products, and Wheeler Consolidated in Des Moines, Iowa, and Beisser’s Inc., in Grimes, Iowa.⁸⁸ Applicants submit there

⁸⁵ See *id.* ¶ 12 & n.21.

⁸⁶ See *IAIS – Iowa Interstate Railroad, LLC*, <https://iaisrr.com/> (last visited July 14, 2026).

⁸⁷ See Bailey Supp. VS ¶ 12 & n.21.

⁸⁸ See *Norfolk S. Ry.—Abandonment Exemption—in Polk County, IA*, AB 290 (Sub-No. 424X); *Iowa Interstate R.R., LLC—Discontinuance Lease & Operating Authority—in Polk County, Iowa*. AB 414 (Sub-No. 9X). As Dr. Bailey observes, {} See Bailey Supp. VS ¶ 12. Further, as noted above, as part of the process of reaching out to shippers on this list, Applicants determined that Wheeler Consolidated is no longer an active business.

is little sense in granting a new Class I railroad competitor access to these facilities if traffic from them is not sufficient to justify continued operations.

A-3 For each 2-to-1 and 3-to-2 shipper facility, provide any contracts or agreements, and any supporting details relevant to the Board's examination of the arrangement, pertaining to access or competition protection, and—if no contract or agreement has been entered into—describe Applicants' most recent proposal to provide access or competition protection to such facility and the status of any negotiations on such proposal.

Applicants have not entered into any contracts with 2-to-1 or 3-to-2 shippers regarding access or competition protection. As stated in the Amended Application, Applicants have committed to the owner of Hillsboro Energy LLC and Macoupin Energy LLC that they will attempt to negotiate a trackage rights agreement with BNSF that, contingent on consummation of their merger, will give BNSF access to Hillsboro and Macoupin.⁸⁹ BNSF has been unwilling to entertain discussions that would support the merger being approved.

Applicants have also contacted AgRail LLC and committed that they will attempt to negotiate an agreement with CN that, contingent on consummation of their merger, will allow CN to serve AgRail's facility using haulage under reasonable terms and conditions.

Applicants have reached out to the other shippers identified above to discuss their proposals, answer questions, and obtain feedback.⁹⁰

⁸⁹ See Amended App., Vol. 1 at 22, Verified Statement of Katherine N. Novak ¶ 56.

⁹⁰ As noted above, as part of this process, Applicants determined that US Glu-Lam Inc. and Wheeler Consolidated are no longer active businesses.

Finally, as discussed above, UP has entered into a settlement agreement with CN under which UP will select CN to provide access to 2-to-1 and 3-to-2 shipper facilities where the Board requires Applicants to grant an additional Class I railroad access to a 2-to-1 or 3-to-2 facility, the Board determines CN is a suitable candidate to provide that access, and it is operationally and commercially feasible for CN to provide such access.

A-4 Confirm that Applicants do not intend to take any action to reduce or eliminate the access of any Class II carrier, Class III carrier, or port to a Class I carrier, either directly or through actions taken by the merged entity.

Applicants confirm that they do not intend to take any action to reduce or eliminate the access of any Class II railroad, Class III railroad, or port to a Class I railroad, either directly or through actions taken by the merged entity. (Applicants note that several Class II and Class III railroads connect directly with both UP and NS, but each such short line will continue to connect directly with at least two other Class I railroads after the merger. In addition, UP and NS connect directly to several ports, but each such port will continue to have access to at least two other Class I railroads after the merger.)

IV. Public Benefits

A. Introduction

The Board's requests for supplemental information concerning public benefits focus principally on three related issues: (1) the assumptions underlying Applicants' diversion analyses and projected public benefits; (2) the extent to which competitive responses could affect the projected diversions and benefits; and (3) the mechanisms

available to evaluate whether the merger’s public benefits are realized following consummation.

Applicants welcome the opportunity to address these issues. As explained below and in the accompanying Supplemental Verified Statements, Applicants’ diversion analyses are grounded in observed marketplace behavior and already account for the types of ordinary-course competitive responses that have historically occurred when railroads introduce new single-line service. The analyses do not assume that competitors remain passive following the transaction. Rather, they reflect actual market outcomes in which railroads and trucking providers have adjusted prices, service offerings, and other competitive attributes in response to comparable changes in service.

Applicants also explain that the transaction’s significant public benefits—including enhanced competition, improved service, operating efficiencies, shipper savings, and broader transportation system and environmental benefits—do not depend on whether Applicants capture every projected diversion. The transaction’s significant public benefits are driven by the creation of new single-line service, which will benefit UP/NS’s existing customers and the broader transportation marketplace regardless of whether a single carload is diverted to UP/NS. Indeed, where the proposed transaction induces competitors to improve their own service or pricing, those responses themselves represent an important public benefit because they further increase competition and expand the benefits to shippers.

Finally, Applicants outline how they would report on the realization of merger benefits during the Board's oversight period and respond to the Board's requests regarding potential competitive scenarios, implementation timing, commercial strategies, capacity expansions, and other public-benefit issues. Taken together, these responses demonstrate that the proposed transaction will produce substantial and durable public benefits under a wide range of reasonably foreseeable competitive conditions.

B. Specific Responses

PB-1 Confirm whether Applicants' diversion analyses and public benefit summaries reflect Applicants' assumption that no competitive response, by any market participant, in any form, will occur during the first three years after consummation. If Applicants' analyses and summaries incorporate a competitive response, detail how that response was incorporated into the model and affects the diversion and benefit estimates.

Applicants appreciate this request to clarify aspects of their diversion analysis in order to avoid misunderstandings. As explained in the Supplemental Verified Statement of David T. Hunt, Applicants' truck-to-rail and rail-to-rail diversion analyses do account for one type of competitive response by market participants that could occur during the first three years after consummation: competitive responses by rail and truck competitors in the form of changes to price or service offerings. Applicants' public benefit summaries therefore reflect these competitive responses insofar as they would affect Applicants' projected diversions (though many of the public benefits of such competitive responses cannot be quantified because they will benefit traffic retained by competitors who improve their price or service offerings).

As Mr. Hunt explains, competitive responses could take the form of structural changes (*e.g.*, a subsequent merger) or non-structural normal-course competition (*e.g.*, more competitive pricing or service offerings). Neither the truck-to-rail nor the rail-to-rail analysis incorporates structural changes. However, both analyses directly incorporate normal-course competitive responses, such as changes to price or service offerings the rail industry has experienced historically.⁹¹

The truck-to-rail and rail-to-rail analyses estimate how much additional traffic Applicants will attract by introducing single-line service in markets where previously they could have offered only interline service. Both models incorporate competitive responses to the introduction of single-line service through the use of historical data that reflects actual shipper choices in mature markets where carriers have already responded to the presence of single-line service. The models do not require making specific assumptions about how competing carriers may adjust price, reliability, transit times, or other service attributes when new single-line service is introduced. Those historical responses are already embedded in the market data.⁹² (Of course, UP/NS's rivals may respond more vigorously to the merged firm's single-line offerings than to past competition, which would only further benefit shippers.)

More specifically, the truck-to-rail analysis predicts how much traffic Applicants would gain in a particular lane that would gain single-line service by observing the rail share in comparable lanes in which single-line service already

⁹¹ See Supplemental Verified Statement of David T. Hunt ("Hunt Supp. VS") § 2.

⁹² See *id.*

exists. By looking to shipper choice in markets where the trucks are already competing with single-line service, the analysis accounts for the normal-course competitive responses that can be expected from trucks in response to single-line rail service by looking to the market equilibrium that emerged after truck and rail carriers adjusted their pricing and service offerings in response to single-line rail competition.⁹³

Similarly, the rail-to-rail analysis, in considering market shares achieved where carriers offer single-line service, is calibrated using historical data that reflect shipper choice in markets where competing railroads have responded to the availability of single-line service through their pricing, service levels, reliability, transit time, and other service factors. Like the truck-to-rail analysis, the rail-to-rail analysis does not require any specific assumptions about responses to new competition from single-line service—the ordinary course competitive responses to single-line service are built into the results.⁹⁴

Applicants' diversion analyses drive some but not all of the benefits reflected in Applicants' Summary of Benefits Exhibit. Applicants' projected operating cost benefits reflect projected savings UP/NS will achieve by combining the operations of UP and NS. UP/NS could achieve these savings without any traffic growth.⁹⁵ Other benefits reflected in the Summary of Benefits Exhibit, including operating revenue

⁹³ *See id.*

⁹⁴ *See id.*

⁹⁵ *See Amended App., Vol. 1 at 7–19, Verified Statement of Grant Janke (“Janke VS”) ¶¶ 19–57.*

benefits that serve as a proxy for enhanced competition from new single-line service and shipper truck-to-rail savings reflect estimated traffic diversions. However, as discussed in this section, the estimated traffic diversions account for normal-course competitive responses from trucks and other rail carriers. Further, as discussed below, any competitive responses to the UP/NS merger are public benefits of the merger, regardless of whether UP/NS benefits financially from those responses.

PB-2 Taking into account analyses reflected in the documents produced in response to Decision No. 13, identify and describe the most likely competitive responses from any mode of transportation to the proposed Transaction and how each of those responses would impact Applicants’ ability to attract new traffic. For each competitive response identified, Applicants shall (a) provide a quantitative estimate or, if a quantitative estimate is not feasible, a detailed qualitative assessment of the potential reduction in projected diversions; (b) provide the resulting impact on Applicants’ projected net revenues and annual public benefits; and (c) discuss the impact on Applicants’ earnings available for fixed charges. See 49 CFR 1180.6(a)(2)(ii) & (iii).

As discussed in the Amended Application, Applicants cannot predict whether other Class I railroads may choose to pursue mergers in the future. Before announcing their merger, Applicants believed that any potential responsive merger would likely involve BNSF. However, after Applicants announced their Merger Agreement, BNSF and CPKC publicly disclaimed interest in merging with another Class I railroad.⁹⁶ More recently, the CEO of Berkshire Hathaway, BNSF’s owner, stated that Berkshire was not interested in acquiring one of the other Class I railroads.⁹⁷ In light of BNSF’s, CPKC’s, and Berkshire’s statements, Applicants

⁹⁶ See, e.g., Workpaper “CSX Railroad’s Merger Prospects Derail.pdf.”

⁹⁷ See Workpaper “Gregory Abel Letter to Shareholders Feb. 28, 2026.pdf” at 12.

concluded that no responsive merger was “likely to be proposed in response to their own proposal.” 49 C.F.R. § 1180.6(b)(12)(i).⁹⁸

In Request PB-2, the Board refers to “analyses reflected in the documents produced in response to Decision No. 13.” Decision No. 21 at 24. The documents produced in response to Decision No. 13 do not contain any analysis of potential impacts on the proposed transaction from downstream railroad mergers. Instead, the documents were prepared for the purpose of evaluating and analyzing the proposed transaction—that is, before BNSF and CPKC disclaimed interest in merging with another Class I railroad. UP’s documents, {{

}}¹⁰¹ NS’s documents

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⁹⁸ See Amended App., Vol. 1 at 95.

⁹⁹ UP-36 (filed Apr. 8, 2026) (Sched. of Docs., UP-STB-D13-0000048).

¹⁰⁰ *Id.* (Sched. of Docs., UP-STB-D13-0000349).

¹⁰¹ *Id.* (Sched. of Docs., UP-STB-D13-0000623 at 637–39, UP-STB-D13-0000001 at 8).

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Neither UP's nor NS's documents speculated about or analyzed potential responses by the trucking industry.¹⁰⁵

The Board's Request PB-2 asks Applicants to identify and describe the most likely competitive responses from any mode of transportation in response to the proposed merger. As discussed in response to Request PB-1, Applicants' diversion study already accounts for non-structural competitive responses by other rail carriers and trucks. Applicants regard a BNSF-CSX merger or a BNSF-CSX-CPKC merger as

¹⁰² NS-33 (filed Apr. 7, 2026) (Sched. of Docs., NS_STB_00001432 at 1445).

¹⁰³ *Id.* (Sched. of Docs., NS_STB_00001303 at 1327; NS_STB_00001483).

¹⁰⁴ *Id.* (Sched. of Docs., NS_STB_00001189 at 1202; NS_STB_00001303 at 1327; NS_STB_00001432 at 1445; NS_STB_00001220 at 1251).

¹⁰⁵ Some documents produced in response to Decision No. 13 discuss potential shifts in domestic intermodal business following the merger. UP and NS analyzed the implications for existing traffic. Applicants do not consider such potential shifts to be competitive responses to the proposed merger, and they would not, in any event, affect Applicants' ability to attract new traffic.

the most likely structural competitive response, even though those responses do not appear likely based on public statements by BNSF and CPKC.¹⁰⁶

The Board's Request PB-2 also asks Applicants to quantify the impact of the most likely competitive responses on Applicants' projected diversions and the resulting impacts on Applicants' projected net revenues and public benefits, as well as the impact on Applicants' earnings available for fixed charges. *See* Decision No. 21 at 24.¹⁰⁷ Applicants provide the requested information below.

1. Response to PB-2(a)

The Supplemental Verified Statement of David Hunt provides Applicants' estimate of the potential reduction in projected diversions that would result from a BNSF-CSX(-CPKC) merger in response to the UP/NS merger.¹⁰⁸ In accordance with the Board's instructions, Mr. Hunt estimated the potential reduction in UP/NS's projected diversions; he did not attempt to determine whether a merged BNSF-CSX(-CPKC) would divert incremental traffic from a merged UP/NS. The results of Mr. Hunt's analysis are presented in his supplemental verified statement.¹⁰⁹

¹⁰⁶ In the sections below, Applicants refer to a possible BNSF-CSX or BNSF-CSX-CPKC merger as a "BNSF-CSX-(CPKC)" merger.

¹⁰⁷ *But see Major Rail Consolidation Procedures*, 5 S.T.B. 539, 582 (2001) ("[W]e will not require applicants to present alternative merge benefit calculations based on specific alternative possible responses that could be filed by various carriers.").

¹⁰⁸ Mr. Hunt also separately addresses the potential reduction in projected diversions that would result from a CSX-CPKC merger. *See* Hunt Supp. VS § 3.1.

¹⁰⁹ *See id.*

2. Response to PB-2(b)

Mr. Hunt also quantified the impact of the potential reduction in projected diversions on UP/NS's projected gross revenues.¹¹⁰ To be highly conservative, Applicants did not attempt to calculate the offsetting savings in operating costs from reductions in diverted traffic. As discussed in the next paragraph, any reduction in Applicants' revenue would have no impact on the merger's public benefits. And, as discussed in the next section, Applicants would have more than sufficient earnings available for fixed charges even assuming they lost the gross revenues, not just the net revenues, associated with the potential reduction in projected diversions.

Regarding Applicants' projected public benefits, a downstream BNSF-CSX(-CPKC) merger that reduced Applicants' projected diversions would only increase the UP/NS merger's public benefits. UP/NS's projected public benefits fall into three categories: (i) shipper benefits from UP/NS single-line service, including diversions from other rail carriers and trucks; (ii) railroad cost savings from combining the operations of UP and NS; and (iii) shipper cost savings from diverting traffic from truck to rail. None of these benefits would be reduced by a BNSF-CSX(-CPKC) merger.

First, shipper benefits from UP/NS single-line service would not be reduced by a subsequent BNSF-CSX(-CPKC) merger, even if the subsequent merger reduced diversions to UP/NS. As discussed above, single-line service provides shippers with faster, more reliable, and lower-cost service than interline service. Current UP-NS

¹¹⁰ See *id.* § 3.7.

shippers that gain single-line service would retain those benefits following a BNSF-CSX(-CPKC) merger, whether they remain with UP/NS or shift their traffic to a merged BNSF-CSX(-CPKC). Shippers that divert traffic to UP/NS to gain the benefits of single-line service would also retain those benefits, even if they subsequently divert their traffic back to single-line service provided by a newly merged BNSF-CSX(-CPKC). As Dr. Bailey and Dr. Israel explain in their supplemental verified statements, if UP/NS competition leads competitors to merge to provide their own competing single-line service, then shippers are benefiting from competition provided by UP/NS, regardless of whether they divert their traffic back to BNSF-CSX(-CPKC).¹¹¹ If shippers were not receiving equal or greater benefits from UP/NS's competitor, they would remain with UP/NS.

Second, Applicants' projected cost savings from the UP/NS merger would not be reduced by a subsequent BNSF-CSX(-CPKC) merger, even if the subsequent merger reduced diversions to UP/NS. Applicants' projected cost savings represent efficiencies UP/NS will achieve by combining the operations of UP and NS. These savings would be unaffected by a subsequent merger because they do not depend on increases to current traffic levels.¹¹²

Third, shipper savings from truck-to-rail diversions would not be reduced by a subsequent BNSF-CSX(-CPKC) merger, even if the subsequent merger redirects

¹¹¹ See Supplemental Verified Statement of Dr. Elizabeth M. Bailey ("Bailey Supp. VS") ¶ 53; Supplemental Verified Statement of Dr. Mark A. Israel ("Israel Supp. VS") ¶ 60.

¹¹² See Amended App., Vol. 1 at 502–14, Janke VS ¶¶ 19–57.

truck diversions from UP/NS to BNSF-CSX(-CPKC). In his Verified Statement, Mr. Hunt calculated that UP/NS will divert approximately 2.1 million truckloads of traffic to rail, and that using the lower-cost rail option will save shippers approximately \$3.5 billion per year in the normal year.¹¹³ Mr. Hunt developed the \$3.5 billion figure based on the aggregate cost differential, calculated using unadjusted 2023 truck and rail rates, between serving the diverted truck-to-rail miles by train versus truck.¹¹⁴ As a result, even if a merged BNSF-CSX(-CPKC) were to take some of that traffic from UP/NS, shippers would still receive the same benefits—and likely greater benefits—or they would have no reason to shift the traffic from UP/NS. In addition, highway users and the public will enjoy the same safety, tax savings, and environmental benefits whether trucks are taken off the highways by UP/NS or BNSF-CSX(-CPKC).

3. Response to PB-2(c)

Any potential future reductions in incremental revenue resulting from competitive responses by other transportation providers would have no impact on UP/NS's ability to meet its financial obligations, including fixed charges such as interest payments on corporate debt. As explained below, UP/NS intends to operate using a conservative financial model that does not rely on increased revenue from diverted traffic to “pay for” merger-related costs, including debt. Rather, UP/NS will have sufficient free cash flow to cover its financial obligations without any

¹¹³ See Amended App., Vol. 2 at 482, Verified Statement of David T. Hunt (“Hunt VS”) § 8.2.

¹¹⁴ See *id.*

incremental revenue from traffic diversions related to the merger. Thus, any potential future loss of incremental revenue synergies to competitive responses would have no impact on UP/NS's financial stability.

a. Financial Overview of UP/NS Merger

UP intends to finance the transaction through a combination of debt and issuance of UP shares to current NS shareholders. Specifically, each current NS share will be exchanged for one UP share and a cash payment of \$88.82. The total cash consideration to be paid by UP in connection with the transaction is approximately \$20 billion, of which approximately \$16 billion will come from newly issued floating-rate and fixed-rate debt.¹¹⁵ The combined pro forma revenue in Year 1 is \$41.2 billion, which includes \$1.6 billion of revenue synergies.¹¹⁶ The over \$40 billion in revenue is anticipated to produce \$21.3 billion in EBITDA, leaving ample funds to meet the combined entity's financial obligations.¹¹⁷

b. UP's Use of Available Cash Flow in Base Case

UP takes a disciplined approach to use of its substantial EBITDA and associated free cash flow. After operational costs are covered, UP then applies available cash in turn to (i) its planned capital expenditure program; (ii) dividends; (iii) debt paydown and (iv) share repurchases. The anticipated allocation of funds across the categories in the years following closing are outlined below.

¹¹⁵ The exact terms of the debt UP anticipates issuing to fund a portion of the merger consideration will not be determined until closer to closing.

¹¹⁶ See Workpaper "Project Opal Financial Model_Share_2026_07.15.xlsx," Tab "N Merger Model," Cells W17, W16.

¹¹⁷ See *id.*, Cell W28.

Capital Expenditures. For the first year following the merger, UP intends to invest approximately \$6.5 billion across the combined network, consistent with historical capital expenditure rates and network investment plans.¹¹⁸ The projected capital investments across the three-year planning horizon will be easily accommodated with UP's projected cash from operations, leaving ample additional cash available for other corporate purposes.¹¹⁹

Dividends. Available free cash flow after operational and capital expenses is available for payment to shareholders in the form of dividends. UP has historically maintained consistent annual increases in dividends.

Debt Paydown. Consistent with corporate finance principles, UP has historically sought to maintain an adjusted debt to adjusted EBITDA leverage ratio consistent with its current A-/A3 credit rating. The one-time debt incurred to fund the merger will temporarily increase that leverage ratio to approximately 3.34x.¹²⁰ The UP financial model projects using available cash flow to reduce merger-related debt to achieve a leverage ratio of 2.85x within one year following closing.¹²¹

Share Repurchases. Both UP and NS temporarily suspended on-going share repurchase programs following announcement of the merger.¹²² Share repurchases,

¹¹⁸ See *id.*, Cell W265 (total cash flow from operations in Year 1, including Year 1 capital expenditures to achieve synergies).

¹¹⁹ See *id.*, Cells W260:Y260 (showing cash from operations in Year 1 of \$15.632 billion and increasing to \$18.339 billion in Year 3).

¹²⁰ See *id.*, Tab "N Pro Forma Detail," Cell O54.

¹²¹ See *id.*, Tab "N Pro Forma Detail," Cell P54.

¹²² See Union Pac. Corp., Current Report (Form 8-K) (Sept. 10, 2025); Norfolk S. Corp., Quarterly Report (Form 10-Q) (Oct. 23, 2025).

while discretionary, are an important mechanism by which UP returns value to its shareholders. The baseline financial model anticipates sufficient debt repayment by the end of the first year following closing to allow share repurchases to resume.

c. Potential Impact of Reduced Revenue Synergies Following Competitive Responses

As noted above, any potential diminution in incremental revenue synergies from the merger will have no impact on Applicants’ ability to pay fixed charges. The Base Case financial model created by and relied upon by UP as part of its merger integration planning leaves the combined entity with significant excess free cash flow after capital expenditures, interest payments, and dividends. That uncommitted cash represents a significant financial cushion that fully insulates UP’s other financial obligations in the event of revenue shortfalls, whether due to competitive responses or other external factors.

To demonstrate the potential impact of competitive responses on UP’s financial stability, Applicants have also analyzed the cash flow impact of a very conservative scenario where no revenue synergies are achieved as a result of the transaction, *i.e.*, the incremental revenue synergies of \$1.6 billion in Year 1 and increasing to \$4.0 billion in Year 3 are not realized.¹²³ Under this scenario, the combined entity still achieves all of its financial objectives with just a slight delay.

¹²³ See Workpaper “Project Opal Financial Model_Share_2026.07.15.xlsx,” Tab “N Merger Model,” Cells W16:Y16.

In particular, there is a slight delay from Year 1 to Year 2 in the time by which UP achieves a more normalized adjusted debt to adjusted EBITDA leverage ratio that is more aligned with its current A-/A3 credit rating, as shown below:

Table PB-1: Leverage Ratio Under Alternative Scenarios

Year	Leverage Ratio	
	Base Case ¹²⁴	No Revenue Synergies ¹²⁵
Year 0	3.34	3.34
Year 1	2.85	2.96
Year 2	2.85	2.85

Thus, there is no realistic scenario in which Applicants lack the financial resources to cover fixed charges, including interest expense.

PB-3 Provide any document generated by or for UP or NS since July 30, 2024, that contains diversion projections under competitive response scenarios that are materially lower than Hunt’s estimates and, if any such projections exist, explain any material differences.

NS conducted diversion analyses relating to a potential UP/NS merger but did not generate any document that contains diversion projections under competitive response scenarios that are materially lower than the estimates in the diversion study performed by Mr. Hunt.

UP also conducted diversion analyses leading up to the public announcement of the merger on July 29, 2025. UP’s projection of \$1.75 billion in merger-related

¹²⁴ See *id.* Tab “N Pro Forma Detail,” Cells O54:Q54.

¹²⁵ See Workpaper “Project Opal Financial Model_Share_2026.06.03_no Rev Synergies,” Tab “N Pro Forma Detail,” Cells O54:Q54.

revenue synergies that was described when the merger was announced¹²⁶ matches closely with the \$1.758 billion in projected revenue synergies derived from Mr. Hunt's diversion study in the Amended Application.¹²⁷

Although UP's projections when the merger was announced closely match the bottom-line results later produced by Mr. Hunt's study, differences exist in the mix of projected diversions for different categories of traffic (*i.e.*, rail-to-rail versus truck-to-rail).¹²⁸ Also, UP documents contain a range of projections for each different category of traffic that were refined over time. To the extent differences exist between UP's projections and Mr. Hunt's projections, the differences reflect five main factors:

First, UP did not have access to the same data as Mr. Hunt. UP's projections were initially based on UP's internal traffic data and truck data from the Bureau of Transportation Statistics' Freight Analysis Framework. After UP and NS began discussing a potential merger, UP was able to incorporate additional information from NS that affected its synergies analysis. Mr. Hunt's projections were based on actual traffic data from all Class I railroads, data from the Board's Carload Waybill Sample, and truck data from Transearch.

¹²⁶ Union Pacific-Norfolk Southern Transaction Q&A, <https://investor.unionpacific.com/static-files/224f1be7-4ed6-460d-8f31-9a4eb7b13fc0> (last visited July 17, 2026).

¹²⁷ Mr. Hunt's study projects car and container diversions and calculates associated gross revenues. The Verified Statement of Michael Boyles and Dr. Divya Mathur calculates the incremental costs of the diverted traffic. The difference between the two figures is \$1.758 billion. *See* Amended App., Vol. 1 at 515, Janke VS ¶ 60.

¹²⁸ Like Mr. Hunt's diversion analyses, UP's analyses reflect competitive response scenarios. Specifically, UP's rail-to-rail and truck-to-rail analyses incorporated assumptions that UP/NS would need to accept reduced contribution levels to attract and retain diverted traffic.

Second, UP and Mr. Hunt used different methodologies to project diversions. UP's projections were based on business judgment and experience regarding the likelihood of diverting certain categories of traffic and estimates of the universe of traffic available for diversion. Mr. Hunt's projections were based on more sophisticated mathematical models that developed lane-specific diversion estimates made possible by the more detailed data that were available in preparing the Amended Application.

Third, UP's documents generally reflect different categorizations of traffic than Mr. Hunt used for his analysis. {{

}}

Fourth, UP and Mr. Hunt often presented information using different metrics (*i.e.*, carloads, dollars, tons), which can make direct comparisons difficult because the analyses used different assumptions about the relationship between revenues and units, and in some cases between units and tons.

Finally, UP's documents generally reflect a range of projected diversions for each category of traffic. The ranges allowed the company to perform sensitivity analyses—that is, to test financial outcomes under a range of potential future circumstances. Mr. Hunt's projections were designed to produce a single result for each category of diversion for use in the Amended Application.

To avoid disputes about traffic categorization, metrics, the use of ranges, and whether any of UP's projections are "materially lower" than Mr. Hunt's, Applicants are broadly providing documents generated by or for UP that contain diversion projections.¹²⁹ Many of these documents have already been produced in response to the Board's Decision No. 13 or contain the same projections as documents produced in response to Decision No. 13.¹³⁰

PB-4 Confirm whether Applicants' diversion analysis and public benefit summaries reflect any impact from CGP.

Applicants' diversion analysis does not reflect any impact from Committed Gateway Pricing. As originally designed, CGP applied to interline traffic moving between sole-served facilities on the legacy UP (or the legacy NS) and sole-served facilities on CSX (or BNSF). Accordingly, CGP could not divert any traffic to or from legacy UP or legacy NS portions of the route. As discussed above, CGP is expected to expand opportunities for shippers to compete in new markets, but as Mr. Hunt explained in his Verified Statement, forecasting how CGP might influence traffic

¹²⁹ See Workpaper "UP Diversion Projections.zip." Applicants are continuing to review documents in response to discovery requests served by parties in this proceeding and will supplement this response by providing any documents identified in the discovery process that reflect different projections than the documents provided with this submission.

¹³⁰ See UP-36 (filed Apr. 8, 2026) (UP Schedule of Documents, Documents UP-STB-D13-0000001, UP-STB-D13-0000035, UP-STB-D13-0000048, UP-STB-D13-0000210, UP-STB-D13-0000349, UP-STB-D13-0000452, UP-STB-D13-0000507, UP-STB-D13-0000583, UP-STB-D13-0000603, UP-STB-D13-0000617, UP-STB-D13-0000657). Applicants do not interpret the Board's request to require that Applicants produce documents generated for UP by UP's consultants that merely incorporate diversion projections generated by UP.

shifts between lanes and shipper locations or forecasting how CGP might influence rail traffic growth in general would require highly speculative assumptions.¹³¹

Applicants recognize that their expansion of Committed Gateway Pricing creates the prospect that BNSF and CSX would use CGP-based rates to induce shippers not to divert traffic from BNSF-NS or CSX-UP service to single-line service provided by UP/NS, and to divert UP-NS traffic to BNSF-NS or UP-CSX routes. However, predicting the outcome is too speculative, and either way, shippers would benefit from the new option created by CGP.

Applicants' Summary of Benefits Exhibit also does not reflect any impact from Committed Gateway Pricing. CGP will provide real, meaningful benefits to eligible shippers, and the benefits will grow even larger with Applicants' expansion of CGP. Dr. Israel's Supplemental Verified Statement quantifies some of those benefits. However, Applicants are not proposing CGP as a permanent addition to the rail marketplace. Furthermore, CGP is a mechanism for sharing the merger's benefits, but 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 to competitors, or unilaterally offer to eliminate interchange commitments and renegotiate rental terms with short lines. Applicants therefore did not include CGP as a benefit in their Summary of Benefits Exhibit.

¹³¹ See Amended App., Vol. 2 at 585–86, Hunt VS, App. E n.217. Similarly, Applicants did not attempt to project whether single-line service and rates would influence traffic shifts between lanes or shipper locations or influence rail traffic growth in general.

PB-5 Given that Applicants state that they do not currently have sufficient capacity to support the projected traffic growth, (see Rev. Appl. 1–59), (a) explain how Applicants will achieve the projected benefits of the Transaction within the first three years after consummation considering the time needed for Applicants and shippers, as applicable, to construct the infrastructure (e.g., new sidings, siding extensions, new mainline track, yard expansions, shipper facility investments) and deploy operational assets (e.g., containers, cars, and chassis) needed to generate and handle projected traffic growth; and (b) provide a quantitative estimate or, if a quantitative estimate is not feasible, a detailed qualitative assessment as to the extent to which Applicants’ projected benefits are dependent on shipper investment.

1. Response to PB-5(a)

Applicants have timed their capital projects to achieve all projected benefits of the merger within the first three years after consummation.

Applicants designed their Operating Plan to ensure they will have sufficient capacity to handle the needs of their combined network, including projected traffic growth. Applicants incorporated this analysis into the Operating Plan’s discussion of capacity needs, the Service Assurance Plan’s discussion of capital investment projects, and the related workpapers.¹³² Indeed, the overwhelming majority of projected traffic growth can be absorbed by Applicants’ current (pre-merger) network. On Day 1, Applicants’ pre-merger network can absorb 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.¹³³

¹³² See Amended App., Vol. 2 at 745–56; Verified Statement of Eric Gehringer and John F. Orr (“Gehringer/Orr VS”) ¶¶ 274–94; *id.* at 895–933, Verified Statement of John W. Turner (“Turner VS”) ¶¶ 81–121.

¹³³ See Workpaper “PB-5 STB Supplemental.xlsx,” Tab “UP+NS Terminals,” Cells D10, D21, D29. The total volume of expected growth traffic was determined by subtracting the Base Plan traffic volume for all yards and terminals from the Growth Plan traffic volume for the same. Applicants then identified any yard or terminal with a pre-merger capacity insufficient to handle its Growth Plan traffic volume. Each

New investment is only needed to accommodate merger-related growth in a small portion of Applicants' combined network: capital projects will occur in nine yards and terminals, on two of UP's mainline corridors, and on three portions of the NS network.¹³⁴ Where investment is needed, Applicants have planned to complete their capital improvement projects within three years of closing the merger, allowing them to realize the projected benefits of the merger within three years after consummation.¹³⁵

Applicants have also addressed post-merger operational asset needs. Applicants already maintain sufficient locomotives, rolling stock, and maintenance of way equipment to handle the needs of the combined railroad, including all projected growth traffic, as described in the Operating Plan.¹³⁶ Any additional equipment needs beyond Applicants' current active fleet will be met via reactivation or repairs of stored units.¹³⁷ Applicants intend to purchase lift equipment to increase capacity at select intermodal terminals,¹³⁸ and have planned those purchases to meet the timeline for expected growth traffic. Should growth traffic materialize earlier than expected,

capacity deficit was then subtracted from the expected growth traffic volume, with the resulting number being divided by the expected growth traffic volume. *See id.*

¹³⁴ Applicants are already constructing several pre-merger projects which will increase capacity and, in a few cases, are necessary to accommodate merger-related growth. *See Amended App.*, Vol. 2 at 895–933, Turner VS ¶¶ 81-121.

¹³⁵ *See id.* at 895–933, Turner VS ¶¶ 81-121 (describing Capital Improvement Plan and providing completion date for each project by Year 3).

¹³⁶ *See Amended App.*, Vol. 2 at 780–800, Gehringer/Orr VS ¶¶ 363–418.

¹³⁷ *See id.* at 783–84, Gehringer/Orr VS ¶ 371 (locomotives), *id.* at 792, Gehringer/Orr VS ¶ 386 (rolling stock), *id.* at 798, Gehringer/Orr VS ¶ 407 (MOW equipment).

¹³⁸ *Amended App.*, Vol. 2 at 923, Turner VS ¶ 106.

Applicants can accelerate their acquisition of lift equipment, which is commercially available.

Applicants recognize that their projected traffic growth will not materialize immediately or all at once. Rather, it will build over time as new and existing customers recognize the value of single-line service and Applicants’ improved offerings. To reflect this reality, Applicants have utilized a phased growth model, with 40 percent achieved in Year 1, 70 percent achieved in Year 2, and 100 percent achieved in Year 3.¹³⁹ Should demand for new services materialize sooner than anticipated, Applicants have the operational flexibility to adjust transportation plans to onboard new traffic within available network capacity and service requirements.

As noted above, without any of their merger-related projects, Applicants will have the capacity to serve 96 percent of manifest growth traffic, 91 percent of intermodal growth traffic, and 92 percent of automotive growth traffic. With all projects completed in Year 3, Applicants will be able to accommodate all growth traffic by the end of that year, meaning Applicants will have sufficient capacity to fully achieve the benefits of the merger within three years. In addition, the planned capital projects will enable Applicants to provide improved service through faster routing and longer trains, which is necessary to improve intermodal offerings and attract diversions.¹⁴⁰

¹³⁹ See Amended App., Vol. 1 at 335, Verified Statement of Kenny Rocker and Claude “Ed” Elkins (“Rocker/Elkins VS”) ¶ 139, Table 4.

¹⁴⁰ See Amended App., Vol. 2 at 613–20, Gehringer/Orr VS ¶¶ 5–17.

Manifest Capacity. Applicants anticipate diverting approximately 404,000 rail carloads, including approximately 346,000 manifest shipments.¹⁴¹ Applicants' pre-merger network has sufficient capacity to handle 96 percent of projected manifest growth traffic.¹⁴² A merger-related capital project to be completed by the end of Year 2 will enable Applicants to handle 99 percent of manifest growth traffic by the end of Year 2. And completion in Year 3 of another merger-related project will enable Applicants to handle 100 percent of manifest growth traffic by the end of Year 3.

Applicants identified only two manifest yards that lack pre-merger capacity to handle projected traffic growth: North Little Rock on the UP network and Chattanooga on the NS network. As explained below, Applicants can accommodate growth traffic at these yards through changes to their Operating Plan, including by utilizing excess capacity at nearby yards. Merger-related capital projects will result in both terminals having sufficient capacity by the end of Year 3.

UP's North Little Rock yard has a current capacity of 2,190 cars per day. Applying the phased growth approach described above, North Little Rock is expected to handle 2,290 cars per day in Year 1, 2,313 cars per day in Year 2, and 2,336 cars per day in Year 3. A capital project at North Little Rock is scheduled to be completed in Year 2 and will bring its capacity to 2,350 cars per day. Thus, North Little Rock will be able to accommodate all growth traffic by the end of Year 2.¹⁴³ In Years 1

¹⁴¹ See Amended App., Vol. 2 at 478, Hunt VS § 7.2.

¹⁴² Workpaper "PB-5 STB Supplemental.xlsx," Tab "UP+NS Terminals," Cell D10.

¹⁴³ Workpaper "PB-5 STB Supplemental.xlsx," Tab "UP Manifest," Row 85.

and 2, its capacity is projected to fall short of growth traffic by 100 and 123 cars per day, respectively. If necessary, Applicants can modify their transportation plan to leverage UP's Pine Bluff Yard for alternative switching, which is only 54 miles from North Little Rock. Pine Bluff will have excess capacity of 358 cars per day in Year 1, 313 cars per day in Year 2, and 267 cars per day in Year 3.¹⁴⁴ In each year, Pine Bluff will have excess capacity that substantially exceeds North Little Rock's excess traffic.

NS's manifest yard in Chattanooga has a current capacity of 2,100 cars per day and by the end of Year 3 it is expected to handle 2,157 cars per day. Thus, Chattanooga can presently handle nearly all projected growth traffic. Applying the phased growth approach, Chattanooga is expected to handle 1,867 cars per day in Year 1, 2,012 cars per day in Year 2, and 2,157 cars per day in Year 3. It will thus be over-capacity by only 57 cars per day in Year 3. Applicants have a capital project that will be completed in Year 3 that will bring the yard's capacity to 2,300 cars per day.¹⁴⁵ Should the growth traffic materialize before completion of that project, Applicants can utilize excess capacity at nearby manifest yards including Sheffield, Alabama, which has an expected excess capacity of 728 cars per day in Year 3; Knoxville, Tennessee, which has an expected excess capacity of 383 cars per day in Year 3; and Atlanta, which has an expected excess capacity of 587 cars per day in Year 3.¹⁴⁶

¹⁴⁴ *Id.*, Row 35.

¹⁴⁵ Workbook "PB-5 STB Supplemental.xlsx," Tab "NS Manifest," Row 5.

¹⁴⁶ *Id.*, Cells P34, P29, P35.

Automotive Capacity. Applicants anticipate diverting approximately 404,000 rail carloads, of which almost 58,000 are automotive shipments.¹⁴⁷ Applicants’ pre-merger network has sufficient capacity to handle 92 percent of this automotive growth traffic without any projects being completed.¹⁴⁸ There are only two automotive facilities where projected growth traffic exceeds pre-merger capacity: UP’s Centreville facility and NS’s Jacksonville facility. Centreville will be addressed through reconfiguring the parking layout to increase capacity and Jacksonville will be addressed through a capital project to be completed by the end of Year 3. As a result, Applicants will have sufficient capacity to handle 100 percent of merger-related automotive traffic by the end of Year 3.

UP’s Centreville, Illinois automotive facility has a pre-merger capacity of 100,000 vehicles per year. In the Base Plan it processed 21,298 vehicles per year. UP plans to reconfigure the parking layout to allow for additional parking bays, which will raise the facility’s capacity to 115,000 vehicles per year.¹⁴⁹ In the Optimized Plan, Centreville will process vehicles currently destined for NS’s Wentzville automotive facility and process up to 101,932 vehicles per year.¹⁵⁰ With projected growth, Centreville is anticipated to process 113,536 vehicles per year by the end of Year 3.¹⁵¹

¹⁴⁷ See Amended App., Vol. 2 at 478, Hunt VS § 7.2.

¹⁴⁸ Workpaper “PB-5 STB Supplemental.xlsx,” Tab “UP+NS Terminals,” Cell D29.

¹⁴⁹ See Amended App., Vol. 2 at 752, Gehringer/Orr VS ¶ 285.

¹⁵⁰ See *id.* ¶ 213.

¹⁵¹ Workpaper “PB-5 STB Supplemental.xlsx,” Tab “UP Auto,” Row 4.

Timing for the parking reconfiguration is flexible and will be completed before traffic growth exceeds current capacity.

NS's Jacksonville automotive facility has a pre-merger fluid capacity of 97,000 vehicles per year. In the Base Plan it processed 80,506 vehicles per year. Applying Applicants' phased approach to growth, Jacksonville is expected to process 108,119 vehicles per year in Year 1, 128,829 cars per year in Year 2, and 149,539 vehicles per year in Year 3. A capital project to be completed in Year 3 will bring Jacksonville's capacity to 154,000 vehicles per year, allowing it to serve all merger-related growth traffic by the end of Year 3.¹⁵² Should additional capacity be required before completion of the capital project, Applicants will add additional resources to improve ramp throughput that enable projected growth in Years 1 and 2 while constructing additional parking to accommodate projected growth in Year 3.

Intermodal Capacity. Applicants anticipate diverting 1,550,000 intermodal units annually.¹⁵³ Applicants' pre-merger network has sufficient capacity to handle 91 percent of the expected intermodal growth traffic.¹⁵⁴ Capital projects completed in Year 2 will allow Applicants' network to handle approximately 96 percent of the growth traffic by the end of Year 2, and capital projects to be completed in Year 3 will allow Applicants to handle all projected growth traffic by the end of Year 3.

¹⁵² Workpaper "PB-5 STB Supplemental.xlsx," Tab "NS Auto," Row 3.

¹⁵³ See Amended App., Vol. 2 at 470, Hunt VS § 7.1.

¹⁵⁴ Workpaper "PB-5 STB Supplemental.xlsx," Tab "UP+NS Terminals," Cell D21.

There are five intermodal terminals with pre-merger capacities below projected traffic growth: Inland Empire Intermodal Terminal (“IEIT”), Settegast, Port Laredo, Council Bluffs, and Sharonville. Applying a phased approach to growth traffic and recognizing the timing for completion of capital projects, only one of these terminals (Council Bluffs) is over capacity in Year 1, three terminals are over capacity in Year 2 (Settegast, Port Laredo, and Council Bluffs), and two terminals will be over capacity in early Year 3 (IEIT and Council Bluffs).¹⁵⁵ Capital projects will provide excess capacity for all terminals by the end of Year 3. In addition, for all UP-served intermodal terminals, including IEIT, Settegast, Council Bluffs, and Port Laredo, Applicants will be able to leverage the intermodal terminal reservation system, which enables customers to reserve capacity on specific trains, enables effective ingate planning, and ensures supply/demand balance at intermodal ramps.

UP’s Inland Empire Intermodal Terminal will have capacity of 345,000 lifts per year after completion of a pre-merger project to be finished in the first half of 2027.¹⁵⁶ In the Base Plan, IEIT processed 75,928 lifts per year. Applying Applicants’ phased approach to growth traffic, IEIT is expected to handle 204,494 lifts in Year 1, 300,919 lifts in Year 2, and 397,344 lifts in Year 3. IEIT will thus be within its pre-merger fluid capacity in Years 1 and 2. Applicants can also utilize East LA, City of Industry, and LATC should additional intermodal capacity be required in the Los Angeles Basin. A capital project to be completed in Year 3 will bring IEIT’s fluid

¹⁵⁵ *See id.*, Rows 15–19.

¹⁵⁶ *See Amended App.*, Vol. 2 at 916–17, Turner VS ¶ 97.

capacity to 500,000 lifts per year, allowing it to accommodate all expected growth traffic by the end of Year 3.¹⁵⁷

UP's Settegast intermodal terminal in Houston, Texas has a pre-merger capacity of 180,000 lifts per year after completion in 2027 of pre-merger projects. In the Base Plan, Settegast processed 106,708 lifts per year. Applying Applicants' phased approach to growth, Settegast is expected to handle 168,983 lifts in Year 1, 215,689 lifts in Year 2, and 262,395 lifts in Year 3. Settegast will have sufficient capacity to handle its expected Year 1 traffic. A capital project to be completed in Year 2 will increase Settegast's capacity to 270,000 lifts per year, allowing it to accommodate all expected growth traffic in Years 2 and 3.¹⁵⁸

UP's Port Laredo intermodal terminal has a pre-merger capacity of 160,000 lifts per year.¹⁵⁹ In the Base Plan, Port Laredo processed 108,677 lifts per year. Applying Applicants' phased approach to growth, Port Laredo is expected to handle 150,429 lifts in Year 1, 181,743 lifts in Year 2, and 213,057 lifts in Year 3. Port Laredo can accommodate its expected Year 1 growth traffic. A capital project to be completed in Year 2 will increase Port Laredo's capacity to 250,000 lifts per year, allowing Port Laredo to accommodate all expected growth traffic in Years 2 and 3.¹⁶⁰

¹⁵⁷ Workpaper "PB-5 STB Supplemental.xlsx," Tab "UP Intermodal," Row 27.

¹⁵⁸ Workpaper "PB-5 STB Supplemental.xlsx," Tab "UP Intermodal," Row 4.

¹⁵⁹ See Amended App., Vol. 2 at 918, Turner VS ¶ 99.

¹⁶⁰ Workpaper "PB-5 STB Supplemental.xlsx," Tab "UP Intermodal," Row 3.

UP currently uses an intermodal ramp at Council Bluffs operated by Iowa Interstate Railroad.¹⁶¹ That terminal has an estimated pre-merger fluid capacity of 55,000 lifts per year. Applicants expect Council Bluffs to handle 84,360 lifts in Year 1, 103,060 lifts in Year 2, and 121,759 lifts in Year 3.¹⁶² To accommodate this expected growth, Applicants plan to repurpose UP's North Council Bluffs Yard by constructing a new intermodal terminal at the site.¹⁶³ This new facility will be completed by the end of Year 3 and will have a capacity of 160,000 lifts per year. This project allows for phased operations, which will allow Applicants to balance increased intermodal demand in Council Bluffs with existing capacity at the Iowa Interstate ramp and new capacity at the North Council Bluffs terminal. Applicants will be able to accommodate all expected growth at the North Council Bluffs terminal by the end of Year 3.

NS's Sharonville intermodal terminal will have a pre-merger capacity of 175,000 lifts per year upon completion of a pre-merger project that will be finished in 2026.¹⁶⁴ In the Base Plan, Sharonville handled 60,089 lifts per year. Applying Applicants' phased approach to growth traffic, Sharonville is expected to handle 106,400 lifts in Year 1, 141,133 lifts in Year 2, and 175,866 lifts in Year 3. Sharonville's pre-merger capacity can accommodate all growth traffic expected in Years 1 and 2. A capital project expected to be completed in Year 2 will increase Sharonville's capacity to 206,000 lifts per year. Sharonville will thus be able to handle

¹⁶¹ See Amended App., Vol. 2 at 918–19, Turner VS ¶ 100.

¹⁶² Workpaper "PB-5 STB Supplemental.xlsx," Tab "UP Intermodal," Row 16.

¹⁶³ See Amended App., Vol. 2 at 919, Turner VS ¶ 100.

¹⁶⁴ See *id.* at 919–20, Turner VS ¶ 101.

all merger-related growth by the end of Year 2 and should not experience any capacity shortages.¹⁶⁵ If growth traffic materializes earlier than anticipated, Applicants can also utilize NS's Cincinnati Gess Street terminal.

Line-of-Road Capacity. Capital projects on Applicants' major routes are designed to address a handful of capacity constraints and allow Applicants to accommodate longer trains and improve transit times. The result will allow Applicants to improve service and draw customers to the combined railroad.¹⁶⁶ On Day 1, Applicants' networks will be able to accommodate the vast majority of growth traffic.

On the UP network, planned capital investments on the Golden State Route are designed to advance Applicants' train-length strategy to accommodate projected growth and improve transcontinental transit times from Southern California to the Ohio Valley and Northeast. The Golden State Route could absorb all growth traffic without these projects. Capital investment on the Sunset Route is focused on Applicants' train-length strategy and supporting growth. As detailed below, there is only one segment in the entire UP network that would exceed its current capacity as a result of merger-related growth—and by less than one train per day. This means that on Day 1, UP's network could absorb all of the growth traffic with minor adjustments to the train plan addressing that segment. Moreover, that segment will

¹⁶⁵ Workpaper "PB-5 STB Supplemental.xlsx," Tab "NS Intermodal," Row 13.

¹⁶⁶ See Amended App., Vol. 2 at 748, Gehringer/Orr VS ¶ 280.

not exceed its current capacity until Year 3, by which time its capacity will have already been increased through a capital project that will be completed in Year 2.

The growth traffic on the UP network will exceed pre-merger line of road capacity only on a single segment on the Sunset Route’s Gila Subdivision in Year 3 and by only 0.8 trains per day. That segment, Segment 675-02, runs from Wellton, Arizona to Picacho, Arizona. It has a current fluid capacity of 35 trains per day. In the Base Plan it has a volume of 29.9 trains per day and is expected to see an additional 5.9 trains per day of growth by the end of Year 3, for a Growth Plan volume of 35.8 trains per day. Its current capacity can absorb more than 86% of the expected growth traffic. Based on Applicants’ scaled growth projections, this segment will carry 32.3 trains per day in Year 1 (40% growth) and 34.0 trains per day in Year 2 (70% growth) so it will comfortably accommodate the expected growth in both years.¹⁶⁷

The capital improvement on this segment—the Mohawk to Stoval Double Track—will be completed by the end of Year 2, assuming a timely environmental review.¹⁶⁸ Completion of that project will increase the segment’s fluid capacity to 38 trains per day, comfortably accommodating the expected 35.8 trains per day resulting from growth in Year 3.¹⁶⁹ In addition, the Gila Subdivision has two pre-merger projects—Yuma to Fortuna Double Track and Bosque to Shawmut Double Track and

¹⁶⁷ Workpaper “PB-5 STB Supplemental.xlsx,” Tab “UP Line of Road,” Row 151.

¹⁶⁸ See Amended App., Vol. 2 at 899-900, Turner VS ¶ 86.

¹⁶⁹ Workpaper “PB-5 STB Supplemental.xlsx,” Tab “UP Line of Road,” Cell O151.

Set-Out Track. These projects, which will be completed in 2027, will provide additional flexibility for train scheduling on the Gila Subdivision.¹⁷⁰

The NS network can likewise absorb the vast majority of growth traffic based on its pre-merger capacity. There are only seven segments on the NS network where post-merger growth volumes will exceed the pre-merger capacity. For each of those segments, merger-related projects that will be completed by Year 3 will provide sufficient capacity to handle all merger-related growth traffic. As identified in the Service Assurance Plan, these projects are on three corridors which will see increased traffic: Kansas City to Butler, Indiana, corridor, New Orleans to Atlanta Corridor, and St. Louis to Louisville Corridor.¹⁷¹ Several capital projects on the NS system are designed to accommodate train length strategy rather than capacity constraints to enable efficient handling of targeted growth.

NS's main line between Kansas City and Butler, Indiana, will play an important role in improving coast-to-coast transit times for the combined railroad, specifically paired with the UP's Golden State Route to provide improved service lanes between Southern California and the Ohio Valley and Northeast.¹⁷² Applicants will complete twelve capital projects on this line, with a resulting investment of approximately \$126.5 million.¹⁷³ In the Growth Plan, by the end of Year 3 this

¹⁷⁰ See Amended App., Vol. 2 at 899, Turner VS ¶ 86.

¹⁷¹ See *id.* at 903, Turner VS ¶ 89.

¹⁷² See Amended App., Vol. 2 at 615, 695-96, Gehringer/Orr VS ¶¶ 10, 187-188; *id.* at 903-04, Turner VS ¶ 90.

¹⁷³ Amended App., Vol. 2 at 616, Gehringer/Orr VS ¶ 11; *id.* at 903-08, Turner VS ¶ 90.

corridor will see an increase of 4 to 9 train starts per day.¹⁷⁴ The planned capital projects will allow this corridor to handle the planned traffic growth, reduce transit times, and allow operations consistent with the combined company’s train-length strategy.¹⁷⁵

There are four segments on the Kansas City to Butler corridor that are expected to see growth traffic that exceeds pre-merger fluid capacity: the Lafayette District from Decatur, Illinois to Bement, Illinois; the Lafayette District from Bement, Illinois to Lafayette, Indiana; the Huntington District from Butler, Indiana to Fort Wayne, Indiana; and the Springfield-Hannibal District from Moberly, Missouri to Decatur, Illinois. Applicants are investing \$126.5 million on twelve capital projects in the Kansas City to Butler corridor which will increase capacity and align with Applicants’ train-length strategy.¹⁷⁶ Applicants intend to spend \$37.4 million in Year 1, \$62.7 million in Year 2, and \$26.4 million in Year 3.¹⁷⁷ If growth traffic materializes as projected, Applicants will be able to prioritize the projects that address capacity constraints on these four segments. These segments will have sufficient capacity by the end of Year 3 to handle all merger-related growth traffic.

The New Orleans to Atlanta corridor will also play an important role in Applicants’ growth plans to create competitive lanes between Texas and Mexico and

¹⁷⁴ Amended App., Vol. 2 at 903-04; Turner VS ¶ 90. (The variance results from the corridor having many entry and exit points.)

¹⁷⁵ *Id.*, Turner VS ¶ 90.

¹⁷⁶ *See* Amended App., Vol. 2 at 616, Gehringer/Orr VS ¶ 11.

¹⁷⁷ Workpaper “Synergies Transportation – Operating.xlsx,” Tab “Capital Investment,” Cells E32:E46, F32:F46, and G32:G46.

the Southeast and Northeast. In the Growth Plan, train starts increase by 8 per day on the Back Belt, 3 per day between New Orleans and Meridian, and 8 to 10 per day between Meridian and Austell. There are two segments on this corridor that are expected to see growth traffic exceeding their pre-merger fluid capacity: the NO & NE District from New Orleans to Meridian, Mississippi, and the AGS South District from Burstall, Alabama, to Meridian. Applicants are investing \$154.6 million in eight capital projects on this corridor, which will increase capacity and align with Applicants’ train-length strategy.¹⁷⁸ Applicants intend to spend \$31.8 million in Year 1, \$70.0 million in Year 2, and \$52.8 million in Year 3.¹⁷⁹ If growth traffic materializes as projected, Applicants will be able to prioritize the projects that address capacity constraints on these two segments. Once completed, both corridors will have fluid capacity that exceeds their growth traffic volume. These segments will have sufficient capacity by the end of Year 3 to handle all merger-related growth traffic.

The St. Louis to Louisville corridor will see an increase of three trains per day under the Growth Plan and capital improvements are designed to reduce transit times and improve throughput.¹⁸⁰ One segment in that corridor—the Southern East District, running from Huntingburg, Indiana, to Louisville, Kentucky—has a pre-merger fluid capacity lower than its Growth Plan traffic volume by 0.2 trains per

¹⁷⁸ Amended App., Vol. 2 at 616, Gehringer/Orr VS ¶ 11; Amended App., Vol. 2 at 908–12, Turner VS ¶ 91.

¹⁷⁹ Workpaper “Synergies Transportation – Operating.xlsx,” Tab “Capital Investment,” Cells E:47:E52, E54:F55, F47:52, F54:F55, and G47:G52, G54:G55.

¹⁸⁰ Amended App., Vol. 2 at 912, Turner VS ¶ 92.

day.¹⁸¹ That narrow discrepancy could be accommodated with minor changes to the transportation plan, allowing this segment to handle all expected growth traffic on Day 1.

The Southern East District has a pre-merger fluid capacity of 14.7 trains per day. Applying Applicants’ phased approach to growth traffic, this district is expected to handle 13.1 trains per day in Year 1, 14.0 trains per day in Year 2, and 14.9 trains per day in Year 3. The Southern East District has sufficient pre-merger capacity to handle its expected Year 1 and Year 2 volumes. A merger-related capital project that will be completed in Year 3 will increase the capacity of the Southern East District to 16.1 trains per day, allowing it to handle expected growth traffic in Year 3.¹⁸²

2. Response to PB-5(b)

Applicants’ projected benefits are not dependent upon shipper investment.

As explained above, Applicants have sufficient equipment and infrastructure to handle all projected traffic by the end of Year 3. Applicants’ Operating Plan does not assume or require that shippers will need to make additional investment.

Applicants presently have the locomotives and rolling stock necessary to handle all expected traffic.¹⁸³ As explained in the Verified Statement of Kenny Rocker and Ed Elkins, intermodal investments by shippers are neither assumed nor necessary to accommodate merger-related traffic growth.¹⁸⁴ This is because “the

¹⁸¹ Workpaper “PB-5 STB Supplemental.xlsx,” Tab “NS Line of Road,” Cell O7.

¹⁸² Workpaper “PB-5 STB Supplemental.xlsx,” Tab “NS Line of Road,” Row 7.

¹⁸³ See Amended App., Vol. 2 at 780–800, Gehringer/Orr VS § 9.

¹⁸⁴ See Amended App., Vol. 1 at 311-315, Rocker/Elkins VS ¶¶ 81–84.

domestic 53' container fleet has sufficient excess capacity to accommodate our projected growth.”¹⁸⁵

Applicants' conclusion aligns with the statements of other industry participants. A senior intermodal executive at J.B. Hunt recently stated that its “network can support up to 20% more volume,” through “prefunded capacity investments [they have] made.”¹⁸⁶ Similarly, STG Logistics recently explained, “from a container and chassis perspective, intermodal capacity across the industry is robust. There is more than enough equipment available today to support an incremental one to two million additional shipments.”¹⁸⁷

If existing latent capacity is not sufficient to handle intermodal traffic growth, Applicants and their IMC partners will invest to support market demand.¹⁸⁸ Applicants have a strong track record of investment in domestic intermodal containers to support customer demand and will employ that strategy if necessary here. Applicants have engaged with key partners who have confirmed their willingness to invest alongside Applicants to support growth.¹⁸⁹ “If current excess

¹⁸⁵ *Id.* at 311, *Rocker/Elkins VS* ¶ 81; *see also id.* at 313, *Rocker/Elkins VS* ¶ 84 (“[W]e firmly believe, based on available data, that there is enough latent 53' container capacity to absorb all of the projected 1.3 million loads of merger-related intermodal growth, even before accounting for any additional investment.”).

¹⁸⁶ Larry Avila, *JB Hunt Sees Opportunity for Intermodal Growth*, *Trucking Dive* (Apr. 17, 2026), <https://www.truckingdive.com/news/jbhunt-q12026-earnings-intermodal-operating-income-gain/817646/> (last visited July 17, 2026).

¹⁸⁷ Gary Ahlstrom, *Intermodal in 2026: Capacity, Consistency, and Confidence in an Uncertain Market*, *STG Logistics* (Dec. 16, 2025), <https://www.stgusa.com/news-notices/intermodal-in-2026-capacity-consistency-and-confidence-in-an-uncertain-market/> (last visited July 17, 2026).

¹⁸⁸ *See* Amended App., Vol. 1 at 314, *Rocker/Elkins VS* ¶ 87.

¹⁸⁹ *Id.* at 314–15, *Rocker/Elkins VS* ¶ 88.

equipment capacity proves insufficient to sustain the exciting growth opportunities predicted from this merger, [Applicants] will invest in equipment—just as [they] will invest in rail infrastructure—to ensure [they] have the capacity to meet customer demand.”¹⁹⁰ Accordingly, no shipper investment is necessary to accommodate projected growth traffic.

PB-6 Beyond the conversion of routes to single-line service, elaborate on the extent to which other changes to business or commercial strategies or practices (including with respect to pricing) are planned or modeled to achieve the projected traffic diversions. Applicants shall specify (a) the extent to which rate adjustments (outside of the CGP) are planned to achieve projected diversions and (b) the extent to which Applicants’ modeled revenue projections reflect any reduction in revenue per carload (or other pricing adjustment) for any shipper or group of shippers (outside of CGP).

As discussed in the Amended Application, Applicants are planning extensive changes to their business strategies to achieve the projected traffic diversions. Applicants’ Operating Plan in particular discusses the substantial changes UP/NS will implement to provide the improved service necessary to attract traffic to the merged network, including introduction of seven new premium intermodal train pairs and nine new manifest trains operating over new, more efficient routes, and significant changes to blocking plans designed to provide faster, more reliable, lower-cost service by eliminating interchange and intermediate switching. Applicants’ Operating Plan and Service Assurance Plan also describe Applicants’ plans for extensive capital improvements to main lines and yard and terminal facilities on the combined UP/NS network projected to experience merger-related growth in traffic

¹⁹⁰ *Id.* at 315, *Rocker/Elkins VS* ¶ 88.

diverted from other railroads and trucks. Applicants’ Service Assurance Plan also addresses Applicants’ plans to increase coordination between legacy UP and legacy NS customer service teams to improve the customer service experience for customers with transcontinental shipments and then seamlessly integrate customer service functions to give customers the full benefits of single-line, coast-to-coast service.

1. Response to PB-6(a)

Regarding the Board’s specific request for information regarding the extent to which Applicants are planning rate adjustments to achieve projected diversions, Applicants expect to charge rates for single-line service that are commensurate with rates generally charged in the marketplace for single-line service, which means customers can expect lower rates than they would pay for interline service. As Dr. Israel explains in his Verified Statement, the pro-competitive benefits of the merger include “costs savings and the elimination of double marginalization, which will put downward pressure on prices relative to a no-merger world.”¹⁹¹ Dr. Israel shows using real-world data that prices on comparable routes are substantially lower for single-line service than interline service: single-line rates are approximately 21 percent lower than joint through rates, and approximately 23 percent lower than Rule 11 rates.¹⁹² Mr. Hunt shows that single-line routes consistently produce lower railroad revenue per ton-mile than interline routes across service types and distance

¹⁹¹ Amended App., Vol. 2 at 230, Verified Statement of Dr. Mark A. Israel (“Israel VS”) ¶ 105.

¹⁹² See *id.* at 234–35, Israel VS ¶ 114.

bands.¹⁹³ UP has made clear that it expects customers to pay lower rates as a result of the merger. As Kenny Rocker, UP’s Executive Vice President, Marketing & Sales told customers:

The merger pressures the entire freight market to deliver better pricing and better service. Other railroads will respond. Trucking will respond. That is how competition works, and that is exactly the outcome our customers should expect. More competitive rates win business away from truck and from other railroads, and competitive pressure drives down rates across the entire freight market.¹⁹⁴

2. Response to PB-6(b)

Regarding the Board’s specific request for information about the extent to which Applicants’ modeled revenue projections reflect any reduction in revenue per carload (or other pricing adjustment) for any shipper or group of shippers, Mr. Hunt explains in his Supplemental Verified Statement that he calculated the estimated revenue per carload associated with projected UP/NS rail-to-rail and truck-to-rail diversions using revenue per ton-mile data reflecting the systematically lower revenues associated with pricing for single-line service.¹⁹⁵ As Mr. Hunt explains, the revenues were calculated “using the lower rates associated with the reduction in

¹⁹³ See Amended App., Vol. 2 at 403–04, Hunt VS §2.3, Ex. 2-3.

¹⁹⁴ Setting the Record Straight About Rates After the Merger, Union Pacific (June 1, 2026), <https://www.up.com/announcements/customer-news/2026/CN2026-10> (last visited July 17, 2026).

¹⁹⁵ See Hunt Supp. VS § 5; *see also* Amended App., Vol. 2 at 481, Hunt VS § 8.1 (“To estimate diversion revenue, a revenue per ton-mile figure was used, derived from the CCWS based on commodity and junction frequency.”).

railroads, and thus the lower junction frequencies, involved in the movement post-merger.”¹⁹⁶

PB-7 Provide a discussion of (a) any proposed oversight framework for both diversions and the related public benefits projected by Applicants and (b) if the anticipated public benefits fail to materialize in a timely manner after consummation any proposed measures that could be enacted swiftly and any proposed measures that could be available for shippers that are excluded from CGP (as referenced in EC-1 above). For each CGP-excluded group, identify any mechanism that would provide relief or generate other benefits should Applicants’ projected benefits fail to materialize.

1. Response to PB-7(a)

Applicants appreciate the opportunity to address a proposed oversight framework for both diversions and the related public benefits projected by Applicants. Applicants did not propose an oversight framework in their Amended Application because it is not required under the Board’s rules, which state:

For at least the first 5 years following approval, applicants will be required to present evidence to the Board, on no less than an annual basis, to show that the merger conditions imposed by the Board are working as intended, that the applicants are adhering to the various representations they made on the record during the course of their merger proceeding, that no unforeseen harms have arisen that would require the Board to alter existing merger conditions or impose new ones, and that the merger benefit projections accepted by the Board are being realized in a timely fashion.

49 C.F.R. § 1180.1(g). Absent Board guidance in its decision authorizing the merger, Applicants would submit annual reports with narrative and supporting data addressing the issues identified in § 1180.1(g), including data relating to the proposed open gateway condition, as well as providing updated information on the many

¹⁹⁶ Hunt Supp. VS § 5.

aspects of their operations for which benchmarking was required under 49 C.F.R. § 1180.10(k).

However, Applicants would welcome guidance from the Board and are willing to provide any information about diversions and related public benefits that the Board needs to conduct appropriate oversight and that is within their technical capabilities to provide. If the Board provides such guidance or specific requirements, Applicants would encourage the Board to follow the precedent established in the CP-KCS merger proceeding and conduct a post-approval technical conference to address the logistical and technical aspects of any reporting and recordkeeping requirements ordered.¹⁹⁷

Specifically with regard to diversions and related public benefits, Applicants anticipate reporting at least the following types of data and information.

- *Rail-to-rail and truck-to-rail diversion data.* Applicants anticipate providing data regarding rail-to-rail and truck-to-rail diversions, as was required in CP-KCS.¹⁹⁸ Applicants recognize the Board now has several years of experience with the diversion reporting provided by CPKC and may have developed perspectives regarding potential alternative data or methodologies. Those potential alternatives could be addressed in the context of a post-approval technical conference.
- *Institution of new train services and blocking plans.* In addition to more granular reporting on diversions, Applicants anticipate reporting on operations of the new intermodal and manifest train services and new blocking plans described in the Amended Application. The new services are central to Applicants' ability to attract new traffic and deliver the public benefits anticipated in the Amended Application. Information

¹⁹⁷ See *Canadian Pac. Ry.—Control—Kan. City S.*, FD 36500 (Sub-No. 6) (STB served Sept. 1, 2023).

¹⁹⁸ *Canadian Pac. Ry.—Control—Kan. City S.*, FD 36500, at 82 (STB served March 15, 2023).

regarding Applicants' progress in implementing the new services will help establish that the anticipated public benefits are being delivered.

- *Service improvement data.* Applicants anticipate reporting on service improvements for traffic that moved or would have moved in interline service between UP and NS. Especially over a multi-year oversight period, it is inevitable that marketplace conditions will evolve in ways that make it difficult or impossible to attribute changing rail volumes to the merger. However, the public benefits of faster, more efficient, more reliable UP/NS single-line service will endure as a competitive force in the marketplace regardless of actions taken by Applicants' rail or truck competitors, and regardless of other economic shifts.
- *Merger-related cost-savings data.* Applicants anticipate reporting on the achievement of cost savings anticipated in the Amended Application. As the Board's rules recognize, "greater economic efficiency" is one of a merger's "important public benefits." 49 C.F.R. § 1180.1(c). The UP/NS merger will "eliminat[e] transaction cost barriers between firms, increas[e] the productivity of investment, and enabl[e] [UP/NS] to lower costs through economies of scale, scope, and density," and in the highly competitive environment created by other Class I railroads and trucks, the "new efficiencies [will] be shared with shippers and consumers." *Id.* § 1180.1(c)(1).
- *Technology and customer service integration.* Applicants anticipate reporting on their progress in achieving technological integration and integrating the UP and NS customer service functions. Applicants' implementation efforts in these areas will be critical to attracting customers to UP/NS single-line service.
- *Volume of traffic moving under Committed Gateway Pricing.* Applicants anticipate reporting on the volume of traffic moving under Committed Gateway Pricing. As discussed above, Applicants do not regard CGP as a merger benefit in the same way single-line service and accompanying traffic diversions are a merger benefit, but Applicants would report on use of CGP during the oversight period.

Applicants wish to emphasize that the list of information provided above responds to the Board's request for a discussion of a proposed oversight framework for both diversions and related public benefits. Applicants anticipate providing a wide variety of other information as part of the oversight process.

2. Response to PB-7(b)

As explained in the Amended Application, Applicants have carefully planned their operations to ensure they deliver the expected benefits of the proposed transaction. Applicants' leadership teams have substantial experience in the railroad industry and a track record of delivering results. Union Pacific's leadership team has more than 170 years of combined experience at UP and more than 210 years of combined experience working in the railroad industry.¹⁹⁹ UP executives have an average of more than 19 years at UP and 23 years in the railroading industry. Similarly, Norfolk Southern's leadership team has more than 105 years of combined experience at NS and more than 130 years of combined experience in the railroad industry.²⁰⁰ NS executives have an average of 15 years at the railroad and nearly 19 years in the industry.

In addition to substantial railroading experience, UP's leadership team has a proven record of delivering on commitments to service and safety. Over the past three

¹⁹⁹ See Union Pacific, *About Union Pacific Executive Profiles*, <https://www.up.com/about-us/leadership> (profiles of J. Vena, CEO, C. Conlin, Executive Vice President, Chief Legal Officer and Corporate Secretary, E. Gehringer, Executive Vice President-Operations, J. Hamman, Executive Vice President and Chief Financial Officer, R. Jalali, Executive Vice President, Chief Information Officer, K. Rocker, Executive Vice President, Marketing and Sales, R. Gregory, Senior Vice President-Administration, J. Perkes, Senior Vice President and Chief Human Resources Officer, T. Rynaski, Senior Vice President-Strategy).

²⁰⁰ See Norfolk Southern, *Leadership Biographies*, <https://www.norfolksouthern.com/en/newsroom/leadership-biographies> (profiles of M. George, President and CEO, A. Adams, Chief Human Resources Officer, B. Barr, Chief Operating Officer, A. Bhatt, Executive Vice President & Chief Information and Digital Officer, C. Elkins, Executive Vice President & Chief Commercial Officer, J. Morris, Senior Vice President & Chief Legal Officer, J. Zampi, Executive Vice President and Chief Financial Officer and Treasurer).

years, UP's manifest performance index has improved from 84 percent in Q3 2023 to 98 percent in Q1 2026, and UP achieved 100 percent in Q3 2025 and Q4 2025.²⁰¹ UP's intermodal performance index has similarly improved from 85 percent in Q3 2023 to 98 percent in Q1 2026, and UP achieved 100 percent in Q4 2025.²⁰² Similarly, UP's first mile/last mile performance increased from 91.4 percent in Q3 2023 to 97.6 percent in Q1 2026.²⁰³ UP has seen improvements in other operating metrics over the past three years: Locomotive productivity was 129 GTMs per horsepower day in 2023, 135 GTMs per horsepower day in 2024 (a 5 percent improvement), and 139 GTMs per horsepower day in 2025 (a further 3 percent improvement); workforce productivity was 1,000 car miles per employee in 2023, 1,062 car miles per employee in 2024 (a 6 percent improvement), and 1,132 car miles per employee in 2025 (a 7 percent further improvement); and freight car velocity was 204 daily miles per car in 2023, 208 daily miles per car in 2024 (a 2 percent improvement), and 225 daily miles per car in 2025 (a further 8 percent improvement).²⁰⁴

Union Pacific's leadership has also delivered on its promise of improved safety. From Q3 2023 to Q1 2026, UP's personal injury rate fell from 1.16 to 0.50, a 57 percent

²⁰¹ See Amended App., Vol. 1 at 218–19, Verified Statement of V. James Vena ¶ 21.

²⁰² See *id.*

²⁰³ See *id.*

²⁰⁴ See Union Pacific, *Press Release: Union Pacific reports Fourth Quarter and Full Year 2025 Results* (Jan. 27, 2026); Union Pacific, *Press Release: Union Pacific reports Fourth Quarter and Full Year 2024 Results* (Jan. 23, 2025); Union Pacific, *Press Release: Union Pacific reports Fourth Quarter and Full Year 2025 Results* (Jan. 25, 2024).

improvement.²⁰⁵ Over that period, UP’s derailment rate fell from 2.63 to 1.39, a 47 percent improvement.²⁰⁶

In the Amended Application, Applicants addressed 49 C.F.R. § 1180.1(c)(1)’s requirement that they propose “additional measures” the Board might take if anticipated merger benefits fail to materialize in a timely manner by proposing that the Board could extend the duration or otherwise alter the terms of Committed Gateway Pricing.²⁰⁷ In response to the Board’s request for additional proposals, Applicants are offering a second proposal: the Board could impose an alternative dispute resolution program for rail rate disputes. The details are described below.

Applicants believe their initial proposal, particularly with their expansion of Committed Gateway Pricing, appropriately satisfies the additional measures requirement in § 1180.1(c)(1). The Board adopted the additional measures rule “[t]o ensure that applicants have no incentive to exaggerate the[] projected benefits to the public.” *Id.* In adopting the rule, the Board said the “‘additional measures’ we are calling for are not designed to indemnify specific interests for all claimed benefits that do not come to fruition.”²⁰⁸ The Board also said the measures “should not be so potentially burdensome as to unduly harm a merged carrier.”²⁰⁹

²⁰⁵ See Amended App., Vol. 1 at 218–19, Verified Statement of V. James Vena ¶ 19.

²⁰⁶ *Id.*

²⁰⁷ See Amended App., Vol. 1 at 374–75, Verified Statement of Katherine N. Novak ¶ 4.

²⁰⁸ *Major Rail Consolidation Procedures*, 5 S.T.B. 539, 560–61 (2001).

²⁰⁹ *Id.* at 561

Applicants’ initial proposal comports with the additional measures rule. The potential extension of Committed Gateway Pricing and the associated revenue losses would be a threat hanging over UP/NS. Extending CGP would not indemnify any specific party, but instead would have widespread benefits. Additionally, extending CGP would be a burden on UP/NS, but not one so great as to unduly harm UP/NS. By contrast, the Board’s interest in measures that could be enacted “swiftly,” Decision No. 21 at 25, and that would “provide relief or generate other benefits” for “each CGP-excluded group” appears inconsistent with statements that the rule’s function is deterrence and that the rule is not designed to indemnify specific interests. Applicants also question the suggestion that all shippers should be entitled to some “relief” or “benefits,” even if they could not benefit from new single-line service or even if they would not have diverted rail or truck traffic to UP/NS.

The Board links its request for additional proposals to the “history of prior major mergers that have fallen short of truck-to-rail conversion projections on past applicants’ timelines.”²¹⁰ Applicants are confident in their diversion projections. Applicants’ projections were developed by an independent consultant using methodologies accepted in prior railroad merger proceedings. However, the Board will not simply accept those projections. The projections will be scrutinized by other parties and the Board. If the Board were to conclude the projections should be partially discounted, it should apply any such discount in making its public interest determination, so its decision is not influenced by overstated projections.

²¹⁰ Decision No. 21 at 25 n.29 (citing the CP-KCS merger).

Moreover, Applicants disagree with the premise that achievement of a merger's public benefits can be measured by traffic diversions. As discussed in response to Request PB-1, Applicants' diversion study reflects non-structural competitive responses observed in marketplace data, but if competitors respond more aggressively than in the past or respond structurally with mergers of their own, Applicants' diversions might be lower, but public benefits will be the same or even greater, as discussed in response to Request PB-2. Additionally, traffic diversions are ultimately dependent on a wide variety of micro-level and macro-level economic factors. Applicants believe a much stronger indicator of whether UP/NS is delivering the merger's public benefits is whether UP/NS institutes new train services and blocking plans to provide the benefits of single-line service; whether UP/NS is providing improved service on single-line routes; whether UP/NS is achieving projected cost savings that allow it to provide stronger competition; and whether UP/NS is providing shippers a seamless customer service experience.

Notwithstanding the concerns expressed above, Applicants have developed a second proposal that would have a broader impact than their proposal based on Committed Gateway Pricing. If the Board were to conclude that "the anticipated public benefits fail to materialize in a timely manner," with due regard for the "flexibility" required "to adapt to changing marketplace or other circumstances," 49 C.F.R. § 1180.1(c)(1), or that Applicants had not "act[ed] reasonably in light of changing circumstances to achieve promised merger benefits," *id.*, then the Board

could institute the alternative dispute resolution program for common carrier rates outlined in Appendix B (“Rate ADR Program”).

Applicants’ proposed Rate ADR Program is based on the Board’s voluntary program for arbitration of small freight rate disputes that is currently not operable. *See* 49 C.F.R. § 1108.22(b).²¹¹ If the Rate ADR Program outlined in Appendix B becomes operable, it would remain in place for the duration of the merger oversight period. The Rate ADR Program would not apply to contract service or exempt commodities, but shippers of exempt commodities could seek to partially revoke the relevant exemption and, if successful, become eligible for arbitration prospectively. Applicants’ proposed Rate ADR Program responds to the issues raised in Request PB-7: once it becomes operative, the program could be implemented swiftly, and the program would be available for shippers regardless of whether they are eligible for Committed Gateway Pricing.

PB-8 Given the significant length-of-haul opportunities identified in Hunt’s truck-to-rail diversion analysis that go beyond the watershed area, (a) elaborate on what efforts have been made in the area of joint-line agreements between UP and NS regarding these opportunities from January 1, 2023, to present and (b) specify the reasons the traffic did not convert to rail without a merger.

1. Response to PB-8(a)

Applicants did not undertake efforts to develop joint-line agreements for the eight intermodal lane opportunities identified by David Hunt from January 1, 2023, to present. The reason is straightforward: Applicants concluded that the joint development and long-term operation of these lanes would not be commercially

²¹¹ *See also Joint Pet. for Rulemaking to Establish an Alternative Voluntary Arbitration Program for Small Rate Disputes*, EP 765 (STB served Dec. 19, 2022).

sustainable absent a merger. Based on decades of industry experience, Applicants determined that a joint-line arrangement would not provide the operational integration, aligned incentives, or durable commitment necessary to develop and maintain these opportunities over time. As detailed extensively in the Joint Verified Statement of Kenny Rocker and Ed Elkins: “experience has shown that joint alliances have built-in limits. The same issues come up time and again ... [that] make it difficult for customers to get the seamless, dependable service they expect[.]”²¹²

Successful execution requires more than a compelling business concept. It requires long-term alignment of commercial objectives, operating strategies, and investment incentives. Industry experience demonstrates that joint-line arrangements become increasingly difficult to sustain as management priorities, ownership, and market conditions evolve. As explained by Messrs. Rocker and Elkins, long-term alliances are constrained by differing shareholder interests, the challenge of maintaining coordinated operations across separate railroads, shifting strategic priorities, and incompatible technologies and operating systems.²¹³

A principal limitation of a joint-line arrangement is its inability to support the level of coordinated, long-term capital investment necessary to create a truly competitive intermodal network. Transformative opportunities require substantial investments—such as the approximately \$2 billion UP and NS have committed to

²¹² Amended App., Vol. 1 at 338–39, Rocker/Elkins VS ¶ 144.

²¹³ *Id.*, Rocker/Elkins VS ¶ 144.

invest in their combined network.²¹⁴ Without the permanence and unified incentives created by a merger, those investments are difficult to justify because neither railroad can be assured that it will realize the full benefits of its expenditures.

As Dr. Israel explains, separate railroads face a fundamental incentive problem. Each railroad bears the full cost of its own investments but captures only a portion of the resulting benefits because those benefits depend upon complementary investments made by another carrier.²¹⁵ Consequently, economically valuable projects frequently fail to satisfy the individual investment thresholds of either railroad, even though they would be profitable for an integrated network.²¹⁶

For these reasons, alliances are inherently limited. They may be effective in addressing discrete commercial opportunities for a period of time, but they do not provide the permanence, unified governance, or investment certainty necessary to transform an integrated rail network over the long term.²¹⁷ Norfolk Southern CEO Mark George echoed the strongly held belief that “[r]ailroads cannot contract their way to a seamless network through alliances and marketing agreements.”²¹⁸ Rather, “[o]nly integration can remove the structural barriers that prevent full cooperation,

²¹⁴ See Amended App., Vol. 2 at 499, Verified Statement of Grant Janke ¶ 12; *see also* Workpaper “Synergies Transportation - Operating.xlsx,” Tab “Capital Investment,” Tab H104.

²¹⁵ See Amended App., Vol. 2 at 238, Israel VS ¶ 122.

²¹⁶ See *id.* at 238–40, Israel VS ¶¶ 122–27.

²¹⁷ See *generally* Amended App., Vol. 1 at 328–31, Rocker/Elkins VS ¶¶ 121–28.

²¹⁸ Amended App., Vol. 1 at 266, Verified Statement of Mark George (“George VS”) ¶ 58.

seamless operations, and effective investment.”²¹⁹ And “[o]nly full integration can deliver the scale, coordination, and customer responsiveness necessary to compete with trucking and modern logistics providers.”²²⁰

This understanding is shared by other experienced railroad executives, including the late Patrick J. Ottensmeyer, legendary CEO of Kansas City Southern:

Unfortunately, as is often the case when two railroads try to collaborate on arrangements such as joint marketing and joint operating agreements, they fail. This is because each railroad works to protect its interests or not expend its capital on a risky commercial opportunity for which there is no guarantee of adequate returns.²²¹

For all of these reasons, NS and UP opted to pursue the merger, rather than pursue what almost certainly would have been the rail industry’s largest, most complex, and ultimately unsustainable joint venture.

2. Response to PB-8(b)

The Board has asked Applicants to “specify the reasons the traffic did not convert to rail without a merger” or why the diversions of intermodal traffic are not converting to rail today.²²² The identified traffic has not converted to rail because the current structure of the North American rail network does not permit railroads to offer the fully integrated service necessary to compete effectively with trucking over

²¹⁹ *Id.*, George VS ¶ 58.

²²⁰ *Id.* at 265, George VS ¶ 57.

²²¹ *Id.* at 266, George VS ¶ 58.

²²² Decision No. 21 at 26.

these long-haul corridors. The barriers are structural rather than merely commercial.²²³

As Messrs. George, Rocker, and Elkins explain, railroads operate on fixed infrastructure that requires significant long-term capital investment and coordinated operating decisions. Unlike trucking companies, railroads cannot rapidly adjust networks or deploy assets in response to changing demand. Accordingly, creating entirely new intermodal corridors requires sustained investment in infrastructure, equipment, operating plans, and service design—investments that are far more likely to occur within an integrated railroad than through temporary cooperative arrangements between independent carriers.²²⁴

As rail continues to lose market share to trucking, it is evident that only full integration can deliver the scale, coordination, and customer responsiveness necessary to compete with trucking and modern logistics providers. Actual integration also fosters a level of strategic agility alliances alone cannot offer.²²⁵

As described by Mr. Rocker and Mr. Elkins:

This merger is like creating thousands of alliances at once, but without the limitations that make alliances fragile. Every origin and every destination across both networks will be connected under one roof, with one plan, one standard of service, and one point of accountability. Instead of stitching together a patchwork of cooperative deals or temporary arrangements, we will be running one

²²³ See Amended App., Vol. 1 at 260–63, George VS ¶¶ 43-50; *see generally* Amended App., Vol. 1 at 292–95, Rocker/Elkins VS ¶¶ 46–53.

²²⁴ See Amended App., Vol. 1 at 267, George VS ¶ 60; Amended App., Vol. 1 at 293–95, Rocker/Elkins VS ¶¶ 47–53.

²²⁵ See Amended App., Vol. 1 at 265–67, George VS ¶¶ 57, 59; Amended App., Vol. 1 at 294, Rocker/Elkins VS ¶¶ 48–49.

unified system that delivers a single, seamless experience for customers.²²⁶

In short, the Applicants did not pursue joint-line agreements for the identified intermodal lane opportunities because they concluded that such arrangements would not provide a durable or commercially viable means of developing and sustaining those lanes over the long term. Industry experience demonstrates that alliances and joint operating agreements are constrained by misaligned incentives, fragmented decision-making, and the inability to support the coordinated capital investment necessary to create a seamless, competitive intermodal network. The merger addresses those structural limitations by creating a single, integrated network capable of making the long-term investments and delivering the coordinated service necessary to realize these intermodal opportunities.

V. Service Assurance

A. Introduction

Applicants' Service Assurance Plan proposed a voluntary arbitration program under which UP/NS customers could bring claims for damages related to failure to provide reasonable service due to merger implementation problems (the "Damages ADR Program"). The Damages ADR Program was designed as a streamlined process for handling any claims for damages, consistent with 49 C.F.R. § 1180.1(h)(5). Although Applicants expect that no customer will ever have cause to invoke this process, arbitration would be available to resolve damages claims filed by shippers of non-exempt commodities under common carrier service during the three-year merger

²²⁶ Amended App., Vol. 1 at 339–40, Rucker/Elkins VS ¶ 146.

integration period. The process would be administered by JAMS and is designed to allow quick resolution of disputes through issuance of a final, binding, enforceable decision with only a limited right to appeal.²²⁷

In addition, Applicants are also committing to a targeted access program designed to provide access relief from transitional service issues (the “Targeted Access Program”). Under the Targeted Access Program, objective service metrics drawn from the Board’s existing performance measures will trigger an expedited arbitration process through which eligible terminal-area customers may obtain reciprocal switching on a temporary basis. The program is described in more detail in Applicants’ response to Request SA-3 and Appendix A.

In the sections below, Applicants respond to the Board’s specific requests in Decision No. 21 with respect to SA-1, SA-2, and SA-3.

B. Specific Responses

SA-1 Elaborate on the terms “substantial deterioration in service,” “reasonable service,” and “cure,” and explain any criteria (e.g., specific measurable benchmarks and clear timeframes) that would be used when evaluating those terms in the context of individual shipper claims.

Applicants’ proposed Damages ADR Program will be available during the merger implementation period to resolve disputes regarding whether UP/NS has failed to provide reasonable service as a result of merger implementation problems. A customer can recover damages if it can demonstrate that it suffered a substantial

²²⁷ See Amended App., Vol. 2. at 1138, Turner VS, App. B.

deterioration in service that caused direct damages to the customer and for which the merger was the proximate cause.

Applicants used the term “reasonable service” because that is the term the Board itself uses in its rule requiring Applicants to suggest a protocol for handling claims relating to merger implementation problems. *See* 49 C.F.R. § 1180.1(h)(5) (applicants must “suggest a protocol for handling claims related to failure to provide reasonable service due to merger implementation problems”).

Applicants’ proposed Damages ADR Program expressly identifies what a customer must show to establish that UP/NS failed to provide “reasonable service due to merger implementation problems.” As provided in Section 5.2 of the Damages ADR Program, the customer must demonstrate: (a) it suffered a substantial deterioration in service that was not cured by the railroad prior to the commencement of arbitration, (b) that merger implementation was the proximate cause of that substantial deterioration in service, and (c) that the substantial deterioration in service caused direct damages to the customer.²²⁸

Applicants did not specifically define the term “substantial deterioration in service,” but the concept should be familiar to customers and the Board. The Board’s regulations currently allow alternative relief in the event of a “substantial, measurable deterioration . . . in rail service.” 49 C.F.R. § 1147.1(a); *id.* § 1146.1(a). Although the term is not specifically defined in those regulations, the Board has

²²⁸ *See* Amended App., Vol. 2 at 1141, Turner VS, App. B.

described it as intended to cover “serious, localized railroad service problems,” not “minor service disruptions.”²²⁹ The Board has applied that standard in practice.²³⁰

The Board has previously explained that further definition is not appropriate because the standard must be flexible enough to address each shipper’s particular service needs and experiences:

We do not think it necessary or appropriate to propose a list of particular factors—or a formulaic weighing of such factors—that shippers must use to make that assessment [of a substantial, measurable deterioration in service], or to propose a specific test period. Each shipper has its own particular service needs and experiences, and carrier difficulties may vary. Our standard of relief must be flexible enough to permit us to address varying circumstances.²³¹

Applicants’ approach to defining both “reasonable service” and “substantial deterioration” is consistent with the agency’s long-standing approach to addressing issues relating to those concepts: each case must be assessed based on its particular facts and circumstances. A case-specific approach is appropriate because the reasonableness of rail service necessarily depends on the particular facts and circumstances presented. What constitutes reasonable service may vary based on the commodity being transported, the transportation service involved, the shipper’s operational requirements, the geographic circumstances, and other relevant factors.

²²⁹ *Expedited Relief for Service Inadequacies*, EP 628, at 2, 4 (STB served Dec. 21, 1998).

²³⁰ *See, e.g., Pyco Indus., Inc.—Alternative Rail Service—S. Plains Switching, Ltd.*, FD 34802, at 5 (STB served Jan. 26, 2006).

²³¹ *Expedited Relief for Service Inadequacies*, EP 628, at 6.

Any attempt by Applicants to define in advance the universe of circumstances in which a customer could assert that it did not receive reasonable service would inevitably invite disputes over the meaning of those definitions rather than focus the arbitrator on the particular facts and circumstances of the individual claim. Applicants’ proposed flexible standard is also a customer-friendly approach, because it gives customers the ability to present their case to the arbitrator in a way that matches their circumstances, and to tailor their evidence to whatever aspect of service that the customer believes is relevant to its situation.

Applicants recognize that their proposed Targeted Access Program would allow for reciprocal switching if certain service metrics fall below specified thresholds. Those service metrics would not be used in the Damages ADR Program. The Targeted Access Program was specifically designed to provide a competitive alternative quickly and efficiently during the merger-integration period. In other contexts, the Board has emphasized that it would be inappropriate to apply or draw from service standards to make determinations relating to the legal adequacy of service.²³²

With respect to “cure,” Applicants in Section 4 of the Damages ADR Program (“Right to Cure”) described a right to cure the alleged failure to provide reasonable service. The concept of cure is straightforward here: it means that UP/NS would have the opportunity to resolve the service dispute. While the goal would be to avoid the

²³² *Reciprocal Switching for Inadequate Service*, EP 711 (Sub-No. 2), at 4 (STB served Apr. 30, 2024) (not appropriate to apply or draw from standards when regulating or enforcing the common carrier obligation), *vacated sub nom. Grand Trunk Corp. v. STB*, 143 F.4th 741 (7th Cir. 2025).

unnecessary expenditure of time and costs of an arbitration because the customer's service dispute has been resolved, Applicants recognize that the customer and UP/NS may disagree on whether an issue has been resolved. In such circumstances, the arbitrator may need to assess whether a service deterioration has been cured. For the same reasons that reasonable service is evaluated on a case-by-case basis, whether a carrier has cured a service issue necessarily depends on the nature of the service deficiency that gave rise to the claim and whether the carrier has restored service that is reasonable under the circumstances.

Under Applicants' Damages ADR Program, the arbitrator will be either an individual agreed upon by the parties or a neutral former federal judge from a United States district court or court of appeals. Application of these standards should pose no problem for experienced arbitrators and former federal judges, who often apply flexible standards such as those embodied within Applicants' proposal.

Finally, the Board's Request SA-1 asks about timeframes. Applicants' Damages ADR Program describes all relevant timeframes for the program—*e.g.*, damages are limited to those incurred within one year prior to the notice of intent (Section 6.4) and Applicants have 30 days to cure the service dispute (Section 4.2). But the program does not mandate a time period in terms of evaluating the substantial deterioration in service. In other words, there is no minimum amount of time that the customer must be experiencing a substantial deterioration in order to

qualify. This is consistent with how the Board has previously considered this issue²³³ and the notion that reasonable service may vary by commodity, geographic circumstances, and the customer's operational needs, among other factors.

SA-2 Explain the compensation available to shippers under the proposed arbitration system, including how Applicants envision the compensation will be calculated and what forms it might take (e.g., direct payment, rate reductions). (Rev. Appl. 2 1142 (Service Assurance Plan).)

Under Section 6.3 of Applicants' Damages ADR Program, monetary relief is available up to \$2,000,000. Under Section 6.5, monetary relief is limited to direct damages only, not indirect damages (e.g., lost profits). Examples of direct damages might include, for example, the cost of alternate transportation or increased storage and handling costs. As provided in Section 6.5, all further limitations in the Interstate Commerce Act or in the governing tariffs also apply. Finally, under the program, injunctive and equitable relief are not available.

Applicants did not specify how compensation should be calculated—other than that compensation should be limited to direct damages only—because they believe the ultimate calculation should be performed by the arbitrator based on the evidence submitted and subject to the limitations of the arbitration program. This flexibility is especially appropriate given the case-specific nature of these types of disputes. In other contexts, the Board has come to a similar assessment, stating that it would “not attempt to prescribe in the abstract a compensation formula applicable to all

²³³ *Expedited Relief for Service Inadequacies*, EP 628, at 6 (declining to propose a specific test period because the “standard of relief must be flexible enough to permit us to address varying circumstances”).

situations,” but instead would be “guided by established precedent, taking into account the circumstances of the particular case.”²³⁴ Should a customer be awarded relief, Applicants anticipate that direct payments to the customer would be the prevailing form, but would be willing to provide credits if the customer preferred an alternative approach.

SA-3 Explain any remedies available for traffic Applicants have designated as ineligible for the proposed arbitration system, including exempt commodities and traffic moving under contract, and describe the process for shippers of such traffic to obtain such remedies.

Applicants’ proposed Damages ADR Program would be available to shippers of non-exempt commodities moving under common carrier service. Applicants’ proposal does not diminish or replace existing remedies available to rail customers, including existing remedies available to customers shipping exempt commodities and traffic moving under contract.

Customers moving under transportation contracts would retain the contractual rights and remedies they negotiated in their contracts with Applicants. Under 49 U.S.C. § 10709(c), transportation provided under a contract is not subject to the Interstate Commerce Act. Rather, transportation under a contract is governed by the contractual rights and remedies negotiated between the parties. Thus, the remedies available to shippers of contract traffic and the process for obtaining those remedies are those bargained for by the parties. Excluding contract traffic from the

²³⁴ See *Expedited Relief for Service Inadequacies*, EP 628, at 14–15 (STB served Dec. 21, 1998).

proposed Damages ADR Program is consistent with the longstanding statutory distinction between common carrier transportation and contract transportation.

Customers shipping exempt traffic likewise have an established path for obtaining a remedy. Although the Board has determined that regulation of such traffic is not necessary, Congress preserved the Board's authority to revoke an exemption, in whole or in part, where regulation is warranted. Accordingly, a customer that believes it has been harmed by a failure to provide reasonable service may seek a partial revocation of the applicable exemption to allow it to pursue relief. If the Board grants that request, the customer may pursue prospective relief through the Damages ADR Program (or directly from the Board).²³⁵

In addition, as discussed above, Applicants are also committing to a Targeted Access Program that would allow customers to request reciprocal switching access in the event of transitional service disruptions. The Targeted Access Program would be available during the merger implementation period to shippers of exempt and non-exempt commodities moving under common carrier rates in carload service that are

²³⁵ Applicants do not understand 49 C.F.R. § 1180.1(h)(5) to require Applicants to propose a protocol for traffic the Board has otherwise exempted from regulation. However, if Applicants' view of the law is determined to be incorrect, then Applicants would also make exempt traffic eligible for the Damages ADR Program.

sole-served and in terminal areas, except for traffic moving in unit train or intermodal service.²³⁶ The program does not apply to traffic moving under contract.²³⁷

The Targeted Access Program would use two objective service metrics adopted in Ex Parte 787 to evaluate service deterioration: original estimated time of arrival (“Original ETA”) and industry spot & pull (“ISP”). If either a customer’s Original ETA or ISP (1) deteriorates from pre-merger levels and (2) is below 70% for Original ETA or below 85% for ISP, then that customer is presumptively eligible for reciprocal switching without having to demonstrate the deterioration in service was merger-related, unless the railroad cures the service deterioration within 30 days or institutes an arbitration to determine whether an affirmative defense applies.²³⁸ Switching prescriptions would be in place for six months and would terminate automatically. The full details regarding the Targeted Access Program are provided in Appendix A.

²³⁶ The program excludes intermodal traffic because shippers can readily shift their traffic to terminals on other railroads. The program excludes unit train traffic because unit trains generally do not have standard schedules that are compatible with use of the OETA metric, and they are not switched or spotted and pulled in the same manner as other carload shipments that are evaluated using the ISP metric. *See Reciprocal Switching for Inadequate Service*, EP 711 (Sub-No. 2), at 38, 59 (STB served Apr. 30, 2024).

²³⁷ The program excludes transportation provided under contract for the reasons described above—*i.e.*, transportation under a contract is governed by the contractual rights and remedies negotiated between the parties.

²³⁸ Affirmative defenses include such things as a failure to meet the performance standard due to extraordinary circumstances beyond the railroad’s control, including operational impact stemming from natural disasters, severe weather events, and extraordinary surges in traffic. In such circumstances, Applicants expect the railroad and customer would be coordinating effort to cure the service deterioration.

VI. Market Shares

A. Introduction

Where Applicants’ diversion analysis projects that traffic shares will increase for UP/NS and decrease by a corresponding amount for non-applicant railroads, the increased shares result solely from enhanced competition and customer-driven responses to the faster, more efficient, more reliable service created by the merger. Board precedent recognizes that the public interest is served when merging railroads attract traffic from competitors by offering superior rates or service, regardless of the impact on those competitors. No essential service is lost when traffic shifts from one rail route to a competing rail route. As the ICC explained long ago: “While a shift in traffic from one line to another may eliminate the need for service over the original line, this simply demonstrates that the earlier service is no longer essential. The [shipper] has the ability to determine, and in most instances does determine, which railroad will receive which traffic over specific routes.”²³⁹

Board precedent also rejects protecting non-applicant carriers “simply because they find themselves in a situation where they must actively compete for traffic more strenuously.”²⁴⁰ To protect shippers not served by the merging carriers, the agency may impose conditions if a non-applicant railroad shows it “will be so adversely affected by the merger that it will be unable to provide essential services.”²⁴¹ However, Applicants’ projected diversions, while substantial, are not large enough to

²³⁹ *Burlington Northern, Inc.—Control & Merger—St. L.*, 360 I.C.C. 788, 951 (1980).

²⁴⁰ *Id.* at 944.

²⁴¹ *Id.*

threaten non-applicants’ ability to provide essential services. In fact, as discussed below, non-applicant railroads will continue to exert competitive discipline on the merged UP/NS, even where they are projected to lose all traffic on competing routes.

B. Specific Responses

MS-1 For each route on which Applicants’ combined market share will increase if the Transaction is approved, elaborate on the potential impact on competing or alternative routes, including whether those competing or alternative routes’ viability may be jeopardized due to insufficient post-Transaction traffic, (see, e.g., NS_STB_00001186; NS_STB_00001321).

Board regulations require applicants to provide market share projections so the Board can assess the potential “impacts of the transaction” on “the provision of essential services.” 49 C.F.R. § 1180.7(b). As described in the Supplemental Verified Statement of David Hunt, Mr. Hunt used the market share projections from his Verified Statement to identify 3,993 routes on which the UP-NS market share is projected to increase as a result of diversions from other railroads to UP/NS, where each “route” is defined as an origin BEA-railroad combination to a destination BEA-railroad combination, broken out by service type (*i.e.*, merchandise/bulk, intermodal, or automotive).²⁴² Mr. Hunt then identified 4,331 competing or alternative rail routes on which market shares are projected to decrease as a result of diversions to UP/NS (out of a total of 42,947 routes).²⁴³

²⁴² See Supplemental Verified Statement of David T. Hunt (“Hunt Supp. VS”) § 6.2, Ex. MS1.1. Mr. Hunt used essentially the same definition of “route” that Dr. Bailey used in her Verified Statement. See Amended App., Vol. 2 at 63, Verified Statement of Dr. Elizabeth M. Bailey ¶ 125 (distinguishing “routes” from “routings”).

²⁴³ See Hunt Supp. VS § 6.2, Ex. MS1.1.

The table below illustrates Mr. Hunt’s approach using the example of intermodal traffic moving from the Los Angeles BEA to the Cincinnati BEA. In this example, the projected increase on the UP-NS route impacted three competing or alternative routes.

Table MS-1: Route Illustration²⁴⁴

Origin BEA	Origin RR	Destination BEA	Dest. RR	Change in Traffic	Projected Traffic
Los Angeles	BNSF	Cincinnati	CSX	{ }	{ }
Los Angeles	UP	Cincinnati	CSX	{ }	{ }
Los Angeles	UP	Cincinnati	NS	{ }	{ }
Los Angeles	BNSF	Cincinnati	NS	{ }	{ }

As the example illustrates, the merger’s projected effects are exactly what one would expect from introducing new single-line service on a route. Applicants will gain share as they transform UP-NS interline movements into new UP/NS single-line movements. Applicants project they will divert traffic from UP-CSX and BNSF-NS interline routes to more efficient UP/NS single-line service. And Applicants project they will capture current BNSF-CSX interline movements with their single-line alternative.

For the UP-NS route in the example above, and more broadly, for each route on which Applicants’ combined market share is projected to increase, the impact on competing or alternative rail routes is clear: non-applicant railroads providing service on those routes will be spurred to improve service and reduce rates to retain the traffic they are projected to lose. No customer using an affected route will lose

²⁴⁴ Hunt Supp. VS § 6.2, Ex. MS1.2.

essential service: even where no traffic would remain on a competing route, the traffic will be moving on an efficient single-line route provided by UP/NS.²⁴⁵ Nor will any customer lose competition: if traffic diverts to a UP/NS route, the diversion will be the result of competition. Prevailing in the marketplace by offering customers a superior product is the epitome of competition.²⁴⁶ Other railroads will lose revenue as a result, but that result is good for customers, even if it is painful for those other railroads. The agency recognized long ago that preventing merging railroads from offering customers the full rate and service benefits of single-line service to protect inefficient interline routes is not procompetitive but anticompetitive—it harms both railroads and customers.²⁴⁷

²⁴⁵ See *Guilford Transportation Industries, Inc.—Control & Merger—Boston and Maine Corp.*, 366 I.C.C. 294, 339 (1982) (“[O]ur concern is the preservation of essential services, not the survival of particular carriers.”), *aff’d in part, rev’d in part and remanded sub nom. Lamoille Valley R. Co. v. ICC*, 711 F.2d 295 (D.C. Cir. 1983), *and modified in part by Guilford Transportation Industries, Inc.—Control—Boston and Maine Corp.*, 5 I.C.C.2d 202, 208, 211 (1988) (concluding CN service was not an essential service in view of available alternatives).

Applicants cannot evaluate whether other railroads’ losses of traffic on the routes they have analyzed could lead to the elimination of rail service on other parts of the other railroads’ networks, although Applicants believe such impacts are unlikely. That is, Applicants do not believe BNSF, CN, CPKC, CSX, or any other railroad would be forced to abandon service and leave shippers with no rail service. If other carriers make such claims and support them with evidence, Applicants would evaluate the claims and the availability of alternative service and address the issues in their reply comments.

²⁴⁶ Cf. *United States v. Aluminum Co. of America*, 148 F.2d 416, 430 (2d Cir. 1945) (“The successful competitor, having been urged to compete, must not be turned upon when he wins.”); *United States v. Grinnell Corp.*, 384 U.S. 563, 570–71 (1966) (distinguishing the willful acquisition or maintenance of monopoly power “from growth or development as a consequence of a superior product, business acumen, or historic accident.”).

²⁴⁷ See *Rulemaking Concerning Traffic Protective Conditions in Railroad Consolidation Procedures*, 366 I.C.C. 112, 130 (1982) (“By indiscriminately requiring consolidating carriers to keep open preexisting routes, they have kept rates artificially high, stifled competition, and thus harmed both shippers and railroads.”),

Moreover, UP/NS will be subject to continued competitive discipline on all routes on which its market share will increase. Mr. Hunt projects that BNSF, CSX, CN, and CPKC will lose between 0.6 percent and 4.0 percent of their total carloads and intermodal units to a merged UP/NS.²⁴⁸ These losses will be meaningful, but they will result from customers freely choosing better alternatives, not from some exercise of market power by UP/NS. They also will not drive those railroads out of business. Instead, they will be forced to compete harder, and customers will benefit from that competition.

A route-by-route analysis highlights the breadth of the merger's benefits, but such an analysis cannot provide an appropriate test of continued competitive discipline because it presents a misleadingly segmented view of railroad operations. As Mr. Hunt explains, railroads currently serve large numbers of very low-volume routes today because many small flows are consolidated into economic movements. "What determines whether rail service is viable is the aggregate volume at the yard, terminal, ramp or service area through which a route is served."²⁴⁹

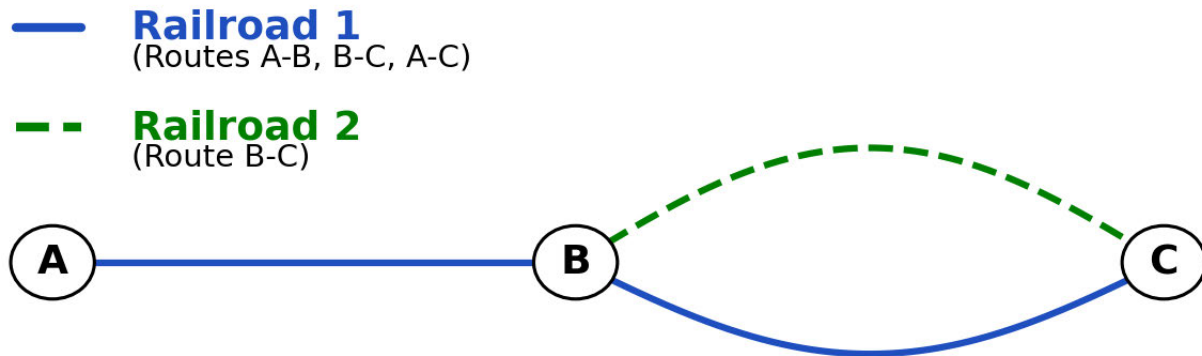
rev'd on other grounds sub nom. Detroit, Toledo and Ironton R.R. v. United States, 725 F.2d 47 (6th Cir. 1984); *Burlington Northern, Inc.—Control & Merger—St. L.*, 360 I.C.C. at 944 ("We will not protect impacted carriers simply because they find themselves in a situation where they must compete for traffic more strenuously. . . . Affected carriers must compete more vigorously and develop new interline rates and services to meet the new competitive abilities of a merged BN-Frisco.").

²⁴⁸ See Hunt Supp. VS § 6.2, Ex. MS1.3.

²⁴⁹ *Id.* § 6.2.

The simplified diagram below illustrates the issue. In the diagram, Railroad 1 operates routes A-B, B-C, and A-C. Railroad 2 operates route B-C.²⁵⁰ If Railroad 2 improves service and captures all traffic moving on route B-C, a route-by-route analysis would show Railroad 1 has no traffic on route B-C. However, it would be wrong to conclude that Railroad 1 would not impose competitive discipline on Railroad 2. A more holistic analysis would show that Railroad 1 provides competitive discipline as long as it operates route A-C: if Railroad 2’s service falters, Railroad 1 will recapture the B-C traffic.

Figure MS-1: Competitive Discipline Illustration



Mr. Hunt could not perform a similarly holistic analysis because the route-by-route market-share data do not reveal which routes overlap, or which specific rail lines the railroads actually use to move traffic from origin to destination, and thus

²⁵⁰ As discussed above, Mr. Hunt’s analysis designates routes by location, railroad, and service type, so in terms of Mr. Hunt’s analysis, Railroad 1’s route B-C would be a different “route” than Railroad 2’s route B-C.

what additional traffic is available to support operations even on routes with no traffic.²⁵¹

Instead, to test continued competitive discipline and viability, Mr. Hunt focused on “locations”—individual BEA/railroad combinations.²⁵² That is, Mr. Hunt analyzed whether non-applicant railroads would continue to have sufficient traffic volumes at origin and destination locations to support regular service over adjacent routes. As Mr. Hunt explains, if origin and destination volumes remain sufficient to support regular service, then routes from that location remain viable.²⁵³

To analyze the sufficiency of origin and destination volumes, Mr. Hunt developed screening criteria derived from both operational service requirements and the statistical distribution of volumes at which railroads operate facilities today.²⁵⁴ In other words, Mr. Hunt used actual railroad behavior to estimate how much merchandise/bulk traffic within a BEA is generally sufficient to support local train service, how much intermodal traffic within a BEA is generally sufficient to support a terminal, and how much automotive traffic within a BEA is generally sufficient to support a ramp. Mr. Hunt then systematically evaluated whether increases in UP/NS market shares would cause volumes for any location to fall below the location volume

²⁵¹ *See id.* § 6.2.

²⁵² *See id.* § 6.1.

²⁵³ *See id.* § 6.3.4. Mr. Hunt’s test is thus even more demanding than suggested by the diagram above—that is, Mr. Hunt tested whether Railroad 1 would maintain sufficient volume at location B, not just at locations A and C.

²⁵⁴ *See id.* §§ 6.5, 6.6, 6.7.

thresholds and drop by 30 percent or more.²⁵⁵ No locations were identified as viability concerns based on these location screening criteria.²⁵⁶

As a supplemental check, Mr. Hunt flagged for further analysis all locations projected to experience a volume decline of 30 percent or more, regardless of the threshold considerations.²⁵⁷ He identified only five such locations in the United States.²⁵⁸ After analyzing the five locations, he concluded that only one involved a possible viability risk—a Chicago, Ft. Wayne & Eastern Railroad (“CFE”) automotive facility in Fort Wayne, Indiana.²⁵⁹ Mr. Hunt then examined that location to determine whether any route associated with that location involved a possible viability risk. He identified a potential risk to CFE’s route to Chicago for interchange with UP, which is projected to experience losses to UP/NS single-line service.²⁶⁰ Mr. Hunt reviewed CFE’s expected volumes over that route and ultimately concluded CFE should have sufficient remaining volume to maintain ongoing service to the Chicago gateway.²⁶¹

²⁵⁵ *See id.* § 6.4. As Mr. Hunt explains, the 30% measure was used to screen out more modest decreases that happen to cross one of the thresholds. *See id.*

²⁵⁶ *See id.* § 6.2.

²⁵⁷ Mr. Hunt used the 30% value to be consistent with the general screening criteria. *See id.* § 6.8.1

²⁵⁸ *See id.* § 6.8.1, Ex. MS1.13.

²⁵⁹ *See id.* § 6.8.1. As an additional sensitivity analysis, Mr. Hunt also evaluated locations projected to experience a 20% volume loss and identified seven such locations in the United States. *See id.*, Ex. MS1.14. After performing a location-by-location review, Mr. Hunt concluded that those locations did not present a viability risk. *See id.*

²⁶⁰ *See id.* § 6.8.2.

²⁶¹ *See id.*

In addition, in Request MS-1, the Board refers to two documents NS produced in response to Decision No. 13 that discuss the potential for Applicants to reduce their use of switching carriers BRC and IHB in Chicago and TRRA in St. Louis as they optimize their traffic flows. *See* Decision No. 21 at 30. Applicants do not consider such optimization to involve diverting traffic to different “routes”: pre- and post-merger, traffic originating on one applicant railroad will terminate on another applicant railroad.

Regardless, Applicants’ plans to optimize traffic moving through the Chicago and St. Louis gateways will not threaten the viability of the switching carriers that operate in those gateways. As discussed in Applicants’ July 7 response to Request TRRA-3, even with the elimination of inefficient intermediate switching between UP and NS, TRRA will continue to play a critical role in the St. Louis area for UP/NS. UP/NS will still be an important user of TRRA’s intermediate switching services, and Applicants’ Growth Plan projects UP/NS will increase the number of trains moving over TRRA’s MacArthur Bridge and Merchants Bridge.

Similarly, UP/NS will continue to rely on BRC and IHB in Chicago. As UP/NS reroutes certain traffic to avoid Chicago and eliminates interchanges for traffic still moving through Chicago, combined UP and NS use of BRC is projected to decline by {{ }} per day under Applicants’ Growth Plan.²⁶² But that change amounts to a tiny fraction of the 8,400 railcars per day dispatched by BRC, which is “the largest

²⁶² *See* Workpaper “C-ALS_BRC_TRRA_IHB-Comparison vFinal.xlsx,” Tab “ALS-BRC-TRRA-IHB,” Cell J8.

intermediate switching terminal railroad in the United States.”²⁶³ And UP/NS will still rely on BRC to provide switching for {{ }} per year.²⁶⁴

For similar reasons, combined UP and NS use of IHB is projected to decline by {{ }} per day under Applicants’ Growth Plan.²⁶⁵ But again the change amounts to a tiny fraction of the business handled by IHB, which is “the largest switch carrier in the United States” and provides industrial switching for 160 customers in addition to providing intermediate switching for all the Class I railroads.²⁶⁶ And UP/NS will still rely on IHB to provide switching for {{ }} per year.²⁶⁷

In sum, Applicants’ merger will not impact the viability of BRC or IHB in Chicago or TRRA in St. Louis; indeed, Applicants’ Operating Plan depends on the continued viability of these switching carriers. Applicants’ reduced use of BRC, IHB, and TRRA should be a win-win: Applicants will improve service for their own customers by eliminating the time and cost involved in an intermediate switch, and they will free capacity on BRC, IHB, and TRRA so other railroads can expand their use of those services and move traffic more efficiently through Chicago and St. Louis.

²⁶³ The Belt Railway Company of Chicago, “About Us,” available at <https://beltrailway.com/about-2/> (accessed July 14, 2026) (“The Belt Railway currently dispatches on a service-driven basis more than 8,400 rail cars per day.”).

²⁶⁴ See Workpaper “C-ALS_BRC_TRRA_IHB-Comparison vFinal.xlsx,” Tab “ALS-BRC-TRRA-IHB” cell H8 x 364.

²⁶⁵ See Workpaper “C-ALS_BRC_TRRA_IHB-Comparison vFinal.xlsx,” Tab “ALS-BRC-TRRA-IHB,” Cell J10.

²⁶⁶ Indiana Harbor Belt Railroad, “About Us,” available at <https://www.ihbrr.com/about-us> (last accessed July 14, 2026).

²⁶⁷ See Workpaper “C-ALS_BRC_TRRA_IHB-Comparison vFinal.xlsx,” Tab “ALS-BRC-TRRA-IHB,” Cell H10 x 364.

MS-2 Because the diversion analysis does not account for industry changes since 2023 from transactions involving CP-KCS, CSXT-Pan Am, and CN-Iowa Northern, (Rev. Appl. 2-457, V.S. Hunt 70), discuss the impact of these transactions on Applicants’ ability to achieve the truck-to-rail and rail-to-rail diversions modeled by Hunt’s diversion and projected market share analysis.

Applicants appreciate this request to clarify aspects of their diversion analysis in order to avoid misunderstandings. As Mr. Hunt explains in his Supplemental Verified Statement, the truck-to-rail and rail-to-rail analyses that he performed do in fact reflect the merged state of CP-KCS, CSX-Pan Am, and CN-Iowa Northern when considering the competitive options to shippers.²⁶⁸ In Mr. Hunt’s analyses, the combined CP-KCS, CSX-Pan Am, CN-Iowa Northern, and BNSF-Montana Rail Link networks are treated as existing single-line alternatives. As Mr. Hunt explains, “[t]raffic is projected to divert to UP-NS only where new UP/NS single-line service is expected to outperform already available single-line alternatives.”²⁶⁹ In the Amended Application, Mr. Hunt did state that base-year 2023 traffic did not include industry changes from mergers and acquisitions involving CP-KCS, CSX-Pan Am, CN-Iowa Northern, but he was simply making the point that he did not attempt to forecast the effects of those transactions (*e.g.*, by applying rail-to-rail and truck-to-rail diversion models to all those transactions) to create a new 2023 base traffic file before using observed 2023 traffic to estimate diversions from that base to UP/NS.²⁷⁰

²⁶⁸ See Hunt Supp. VS § 7.

²⁶⁹ *Id.*; see also Amended App., Vol. 2 at 425, Verified Statement of David T. Hunt § 4.1.1, Ex. 4-4 (Rail industry changes since 2023) (“These combinations were considered when determining if UP-NS would provide improved rail service in a market.”).

²⁷⁰ See Hunt Supp. VS § 7.

Finally, the Board's Request MS-2 includes a footnote that references the UP/CN/Grupo Mexico Falcon Premium service and the BNSF/Grupo Mexico/JB Hunt Quantum de Mexico service. *See* Decision No. 21 at 30 n.34. As Mr. Hunt explains, his diversion study did not address either service for two reasons: the timing of the service launches and the lack of overlap with lanes impacted by the UP/NS merger. The Falcon Premium service was announced in May 2023. The Quantum de Mexico service was announced in May 2025. Mr. Hunt's diversion work is based on the Board's 2023 carload waybill sample, so the Falcon Premium service was not fully reflected in the data, and the Quantum de Mexico service had not yet been announced.²⁷¹ Mr. Hunt's diversion work does not attempt to forecast the impact of changes since 2023 (other than to treat newly combined railroads as providing single-line service, as discussed above). As Mr. Hunt explains, attempting to account for all possible changes that might have affected traffic flows—not only new services but changes in train schedules and service frequencies, truck pricing, drayage costs, fuel costs, manufacturing conditions, international trade conditions, customer distribution networks, and broader economic changes—would require constructing a new forecasted traffic base rather than using observed 2023 base-year data, which could be matched with information from the Board's 2023 Costed Waybill Sample, which was the most recent available version of the Costed Waybill Sample when Mr. Hunt initially performed the diversion analysis in 2025.²⁷² In addition, as

²⁷¹ *See id.*

²⁷² *See id.*

Mr. Hunt observes, neither the Falcon Premium service nor the BNSF/Grupo Mexico/J.B. Hunt service operates in lanes that would be materially impacted by the UP/NS merger.²⁷³

VII. Downstream Impacts

A. Introduction

The Board's requests relating to downstream merger impacts ask Applicants to consider how the proposed UP/NS merger should be evaluated in light of the possibility that other Class I railroads could seek to merge in the future. Those questions necessarily involve hypothetical transactions, unknown records, and competitive circumstances that cannot be predicted with certainty. Nevertheless, several general principles provide a sound framework for evaluating those issues.

First, any future Class I merger would be subject to its own comprehensive review under the Board's governing statutes and regulations, including the major merger rules. The Board would evaluate the competitive effects of any such merger based on the evidentiary record developed in a proceeding focused on the specific merger proposal and could impose transaction-specific conditions tailored to address any competitive concerns raised by that specific merger proposal. Any future transaction should be approved only if it satisfies the statutory public interest standard and includes whatever protections are necessary to address transaction-specific competitive harms. Where future mergers are predominantly complementary, they can generate many of the same efficiency and service benefits

²⁷³ *See id.*

associated with the proposed UP/NS merger, and any localized competitive concerns can be addressed through targeted remedies consistent with longstanding Board practice.

Second, the cumulative effects of subsequent downstream mergers on geographic competition are not additive harms, but rather cumulative competition as each successive end-to-end merger would likely strengthen, rather than erode, the geographic competition of the entire rail network. Geographic competition analysis examines whether a merger eliminates competition the merging railroads provide by moving traffic from different origins to the same destination or from the same origin to different destinations. Dr. Bailey's economic analysis shows that the UP/NS merger will not reduce geographic competition. Rather, the UP/NS merger will enhance geographic competition by creating new single-line service that will allow shippers to compete in new markets. A downstream rail merger will not change that. Because the analysis of UP/NS source and destination constraints turns on the competitive relationship between those two railroads and the collective availability of alternate constraints, a subsequent merger between different carriers would not change the competitive impact of the UP/NS merger. Indeed, a subsequent merger would likely further strengthen geographic competition by making more origins, destinations, and transportation modes compete more vigorously.

Finally, the Board's conditioning authority remains an important mechanism for protecting competition, but that authority must be exercised in connection with the transaction before the Board and consistent with the statutory framework,

principles of administrative finality, and the evidentiary record supporting the agency's decision. The prospect of future mergers does not justify imposing speculative conditions today to address competitive effects that may never arise and that, if they do arise, can be evaluated directly in the proceeding involving the later transaction. And Applicants explain why the conditions proposed in the Amended Application will not be rendered less effective by any subsequent major mergers involving BNSF, CSX, CN, or CPKC. The expanded Committed Gateway Pricing condition might, in fact, become more effective for sole-served to sole-served shipments, if a second CGP program were required of the subsequent applicants. But the Board would need to carefully study the cumulative impact of two CGP programs in that subsequent proceeding.

B. Specific Responses

[DS-1] Because Applicants have taken the position that any additional Class I mergers would not likely result in harm if they are “essentially end-to-end,” (Rev. Appl. 1–95), Applicants shall specifically discuss whether any subsequent mergers—involving BNSF, CSXT, CN, or CPKC—would be “end-to-end,” and if not, provide their view on how to deal with potential problems resulting from further consolidation.

Respectfully, Applicants have not “taken the position that any additional Class I mergers would not likely result in harm if they are ‘essentially end-to-end.’” Rather, the Amended Application stated that future mergers would likely not result in harm if three conditions were met: (1) “they are essentially end-to-end like the combination of UP and NS”; and (2) “the merging railroads agree to standard competition-protecting conditions;” and (3) “the merging railroads plan for integration with the same level of careful planning in which Applicants have

engaged.”²⁷⁴ Applicants used the term “end-to-end” consistent with how the Board has used that term: to describe a transaction in which the combining railroads’ networks are principally complementary rather than overlapping. In such a transaction, the carriers generally serve different regions and connect at gateways. The transaction would thus bring together connected networks to create longer single-line routes, rather than eliminate head-to-head service to the same customers or facilities.

The term “end-to-end” does not mean there would be no overlap at all. Large railroads serving different geographic markets will have limited common service points or facilities in the regions where they connect, as the Applicants do here, and the agency has characterized such combinations as “end-to-end.” For example, the Board characterized the CP-DM&E transaction as “essentially end-to-end” despite recognizing that it involved five two-to-one stations, 25 three-to-two stations, and some geographic overlap.²⁷⁵ There are many other examples of the Board describing transactions with minor overlaps as “end-to-end.”²⁷⁶ The relevant question is whether

²⁷⁴ Amended App., Vol. 1 at 95–96.

²⁷⁵ See *Canadian Pac. Ry. Co.—Control—Dakota, Minn. & E. R.R. Corp.*, FD 35081, at 11 (STB served Sept. 30, 2008) (“The evidence demonstrates that this essentially end-to-end transaction will benefit shippers by enabling CPRC/DM&E/IC&E to provide single-system service where none currently exists.”); see also *Canadian Pac. Ry. Co.—Control—Dakota, Minn. & E. R.R. Corp.*, FD 35081 Application, Verified Statement of John H. Williams at 11–19 (describing thirty commonly served stations, including five 2-to-1 stations and fifteen 3-to-2 stations) (filed Oct. 5, 2007); *id.* at Ex. I-A (map illustrating route overlap).

²⁷⁶ See, e.g., *CSX Corp.—Control & Operating Leases/Agreements—Conrail Inc.*, 3 S.T.B. 196, 248 (1998) (“With very minor exceptions, the combination of NS and Conrail and of CSX and Conrail lines will be end-to-end and not parallel.”); *Burlington N. Inc.—Control & Merger—Santa Fe Pac. Corp.*, 10 I.C.C.2d 661, 740 (1995) (“The primarily end-to-end (vertical) integration of the rail operations

any such overlaps are material to the competitive analysis or whether the transaction primarily is a complementary network combination.

The U.S. rail network map illustrates that potential future combinations of Class I railroads, like the UP/NS merger, would principally connect separate regional networks to create new single-line service, not combine railroads that serve the same geographic regions. Such combinations would meet the classic definition of “end-to-end” as used by the Board. To provide empirical confirmation of this visual assessment, Applicants examined SCRS data to evaluate where BNSF, CSX, CN, and CPKC serve the same customer facilities and thus where there could be horizontal overlap in potential subsequent combinations. The table below reports, for each potential combination, both the total number of customer facilities that would be served by the combined railroads, as well as the number of those facilities that would constitute 3-to-2 or 2-to-1 facilities. The SCRS data show not merely where the carriers’ systems appear to meet or overlap on a map, but where they actually serve the same customer facilities. (Applicants do not address a potential CN–CPKC combination, which is not a plausible downstream transaction, and which would not be an end-to-end combination in any event.)

conducted by BN and Santa Fe will enable the consolidated carrier to reduce the costs it incurs and to improve the services it provides.”); *CSX Corp.—Control—Chessie Sys., Inc. & Seaboard Coast Line Indus., Inc.*, 363 I.C.C. 521, 529 (1980) (“The proposal will enable CSX to consolidate control of two railroad systems which geographically meet end-to-end, with minor exceptions, and will enable the operation of single-system service connecting the East and Midwest with the Southeast.”).

Table DS-1: Limited Competitive Overlap of Potential Subsequent Mergers²⁷⁷

Combined Railroads	Total Customer Facilities	3-to-2 Customer Facilities	2-to-1 Customer Facilities
CSX-BNSF	19,157	39	18
CSX-CPKC	15,226	111	30
CSX-CN	15,363	227	81
BNSF-CN	13,409	236	94
BNSF-CPKC	13,689	613	133

This analysis of SCRS data confirms that these potential subsequent combinations, with the potential exception of BNSF-CPKC, could be characterized as essentially end-to-end. In each case, the degree of horizontal overlap is limited relative to the total facilities served by the combining carriers because the networks are overwhelmingly complementary rather than duplicative.

To the extent that an essentially “end-to-end” potential future combination nevertheless raises horizontal competitive concerns, the Board has well-established tools to address them. Access remedies like trackage or haulage rights, divestitures, or other competition-affirming commitments are available for the Board to use to address any individual issue that could arise in future proposed combinations. The Board of course would evaluate any such transactions on their own records, identifying any specific areas of material horizontal overlap and applying the traditional remedial tools long used by the Board to address transaction-specific competitive harms. It can examine customer facilities, origin-destination flows,

²⁷⁷ See Supplemental Verified Statement of Dr. Elizabeth M. Bailey (“Bailey Supp. VS”) ¶ 16, Ex. 3.

parallel routes, terminal areas, and other evidence bearing on whether that transaction would eliminate meaningful horizontal competition. If the evidence shows such merger-related harms, the Board could then consider traditional targeted remedies where necessary and appropriate.

[DS-2] Elaborate on the extent to which subsequent major mergers involving BNSF, CSXT, CN, or CPKC could cumulatively reduce geographic competition and impact market power, and discuss any implications for the Board’s use of its conditioning authority in this proceeding.

Applicants address this question in two parts. First, Applicants elaborate on the extent to which subsequent major mergers could cumulatively affect geographic competition and impact market power. Second, Applicants discuss the implications for the Board’s use of conditioning authority in this proceeding.

1. Cumulative Impact

Under the Board’s major merger rules, applicants analyze impacts on geographic competition, that is, whether a particular end-to-end merger might eliminate an independent source or destination constraint currently imposed on one merging railroad’s route by the other. In the context of the UP/NS merger, this means asking whether an existing NS route in the East places some material geographic competitive constraint on a UP route in the West, or vice versa.

The record shows that any risk of loss of such geographic competition is *de minimis*. Dr. Bailey’s economic analyses demonstrate that the UP/NS merger’s primary effect is not the elimination of meaningful geographic alternatives, but the

creation of new and improved single-line options on a national scale.²⁷⁸ A subsequent merger would not change Dr. Bailey’s analysis of source and destination competition between UP and NS, which focuses on the constraint placed by UP on NS movements, and vice versa, and not constraints created or impacted by combinations of other railroads.

Put differently, if the question is whether UP and NS today constrain each other at a source or destination, that answer does not change if two different railroads later merge. A subsequent BNSF-CSX merger, for example, creates no new pre-merger competition between UP and NS, and it makes no pre-existing UP-NS geographic overlap larger.

Indeed, the UP/NS merger will enhance geographic competition nationwide. The merger will create a more efficient transcontinental railroad by converting approximately 10,000 existing lanes, and 88,000 new county-to-county pairs, from interline to single-line service. Wherever a current interline movement imposes some geographic competitive constraint on another railroad, truck carrier, water movement, or other mode, making that movement more efficient strengthens the constraint. A chemical manufacturer that can reach distant customers more reliably is a stronger competitor. An agricultural production region that gains better rail access becomes more competitive against alternative agriculture regions. As the watershed region becomes more accessible by efficient rail service, it is transformed

²⁷⁸ See Amended App., Vol. 2 at 77–87, Verified Statement of Dr. Elizabeth M. Bailey (“Bailey VS”) ¶¶ 158–88 (analyzing source and destination competition).

into a more attractive market for additional sources of supply. In each case, the more efficient and cost-effective single-line rail transportation expands, rather than contracts, geographic competition.

Viewed through this lens, a future merger that provides more efficient single-line service to more interline customers would, at least in that respect, further enhance geographic competition. If, for example, an existing BNSF-CSX interline movement today places some geographic competitive pressure on the combined UP/NS system, a BNSF-CSX combination would strengthen that constraint—or, at worst, have no impact. Subsequent mergers therefore do not represent or threaten a cumulative loss of geographic competition. They either further enhance it or leave it unaffected.

On the other hand, the Board would need to consider, and if necessary address, any loss of geographic competition specific to a future merger. If, for example, BNSF and CN currently constrain each other at a source or destination, the Board would need to consider whether conditions were necessary to preserve geographic competition in those instances.

In sum, efficiency strengthens competition, whether intermodal, intramodal, product, or geographic. The practical effect of efficiency-enhancing single-line service is to make more geographic origins, more geographic destinations, and all transportation modes compete more vigorously. Applicants thus anticipate that any subsequent end-to-end merger meeting the three previously mentioned criteria would enhance, rather than reduce, geographic competition, and that the Board would

address any specific losses of geographic competition by imposing appropriate conditions in approving that merger.

2. Conditioning Authority

As explained above, Applicants anticipate that any subsequent end-to-end merger would enhance, rather than reduce, geographic competition by strengthening the ability of the U.S. railroad industry to compete for traffic across origins, destinations, and modes of transportation. The Board’s second question nonetheless raises a separate issue: whether the Board can and should exercise its conditioning authority in this proceeding based on the as-yet-unknown cumulative effects of as-yet-unknown potential future transactions.

The statute authorizes the Board to condition major rail mergers:

The Board shall approve and authorize a transaction under this section when it finds the transaction is consistent with the public interest. The Board may impose conditions governing the transaction, including the divestiture of parallel tracks or requiring the granting of trackage rights and access to other facilities. 49 U.S.C. § 11324(c).

The Board’s broad conditioning authority in major rail mergers is not in question. But that conditioning authority is not boundless and is constrained in at least five respects.

First, the Board’s statutory authority to condition a proposed transaction exists only in the context of deciding whether to approve that transaction—not whether to approve future as-yet-unknown transactions.²⁷⁹ In a future merger, the Board may

²⁷⁹ See 49 U.S.C. § 11324(c) (authorizing the Board to impose conditions “governing the transaction”).

examine whether the proposed future merger adversely affects competition that was protected or enhanced by conditions imposed in a prior case. In that future proceeding, the Board also can impose conditions on that proposed merger to protect competition.²⁸⁰ And the Board can and should conduct oversight proceedings to ensure that any conditions imposed in this proceeding achieve their goals and modify those conditions as necessary to ensure effectiveness. But an open-ended condition that would reserve to the Board unbounded authority to regulate a consummated transaction in perpetuity would be inconsistent with the statutory design.

Second, the Board’s statutory authority must be interpreted in light of the longstanding congressional policy favoring railroad mergers that “increase efficiency and quality of service.”²⁸¹ As the D.C. Circuit noted, since 1920, the ICC has operated under “the congressional policy of encouraging consolidation of the Nation’s railroads.”²⁸² The Court observed that both the 4R Act²⁸³ and the Staggers Rail Act²⁸⁴ reinforced that policy and supported rail mergers that enhance railroad efficiency.²⁸⁵ The ICC Termination Act did not change that policy; it reinforced it through further

²⁸⁰ See *Union Pac. Corp.—Control—Mo.-Kan.-Tex. R.R.*, 4 I.C.C.2d 409, 452–58 (1988) (imposing condition to protect previously granted trackage rights from prior merger).

²⁸¹ See *Lamoille Valley R. Co. v. I.C.C.*, 711 F.2d 295, 301 (D.C. Cir. 1983).

²⁸² *Id.* (quoting *Penn-Central Merger & N & W Inclusion Cases*, 389 U.S. 486, 492 (1968)).

²⁸³ See Railroad Revitalization and Regulatory Reform Act of 1976, Pub. L. No. 94–210, 90 Stat. 31 (Feb. 5, 1976).

²⁸⁴ See The Staggers Rail Act of 1980, Pub. L. No. 96–448, 94 Stat. 1895 (Oct. 14, 1980).

²⁸⁵ See *Lamoille Valley*, 711 F.2d at 301–02.

deregulation and by imposing demanding timelines on the Board to complete its review of major mergers.²⁸⁶

Third, fundamental principles of due process limit the Board’s authority to apply new conditions retroactively. Retroactive conditions “would impair rights a party possessed when he acted, increase a party’s liability for past conduct, *or impose new duties with respect to transactions already completed.*”²⁸⁷ That authority is not lightly assumed.²⁸⁸ Congress did not convey retroactive authority to the Board. Instead, the Board has authority only to condition a proposed transaction in the context of deciding whether to approve that transaction, not future as-yet-unknown transactions.²⁸⁹ That conclusion is reinforced by the broader statutory scheme. Congress has given the Board an established and robust set of tools to address public harms in the rail industry. The Board regulates rates, service, and carrier practices. It enforces the common-carrier obligation. And where Congress has determined that

²⁸⁶ See ICC Termination Act of 1995, Pub. L. 104–88, 109 Stat. 803 (Dec. 29, 1995).

²⁸⁷ *Landgraf v. USI Film Products*, 511 U.S. 244, 280 (1994) (emphasis added); see also *ICC v. S. Ry.*, 380 F. Supp. 386, 399 n.26 (M.D. Ga. 1974), *aff’d in part, vacated in part on other grounds*, 543 F.2d 534 (5th Cir. 1976) (“[T]he Court must question the simple fairness of subjecting Defendants to obligations which certainly were not expressly considered at the times the conditions were imposed and which are, at best, not readily apparent from the language of the conditions themselves.”); *Guilford Transportation Industries, Inc.—Control—Boston and Maine Corp.*, 5 I.C.C.2d 202, 206 (1988) (“The unfairness that would result from imposing a condition of which the consolidating carriers had no advance knowledge at the time of consummation is obvious.”).

²⁸⁸ See *Bowen v. Georgetown University Hospital*, 488 U.S. 204, 208 (1988) (“A statutory grant of legislative rulemaking authority will not, as a general matter, be understood to encompass the power to promulgate retroactive rules unless that power is conveyed by Congress in express terms.”).

²⁸⁹ See 49 U.S.C. § 11324(c).

more targeted competitive-access remedies may be appropriate, it has provided specific authority—subject to specific statutory standards—to prescribe alternative through routes, terminal trackage rights, and reciprocal switching. Those tools reflect Congress’s balance between allowing the market to govern in the first instance and preserving regulation as a backstop in defined circumstances. An open-ended condition that would reserve to the Board unbounded authority to retroactively regulate a consummated transaction in perpetuity would be inconsistent with that statutory design.

Fourth, the Board has a long-established policy—both in the context of mergers and other transactions—recognizing the importance of administrative finality.²⁹⁰ The Board, for example, considers the time elapsed since an initial decision and related issues of “administrative finality, repose, and detrimental reliance” when considering reopening transactions or other decisions. Those are particularly important in proceedings that pertain “to a transaction that cannot readily be undone.”²⁹¹ This policy avoids detrimental reliance by the applicant and the public. In the major

²⁹⁰ See, e.g., *Canadian Nat’l Ry.—Control—Ill. Cent. Corp.*, 6 S.T.B. 492, 496 (2002) (“[O]nce the period for administrative reconsideration has passed, carriers that have decided to move forward with their transaction are entitled to rely on the assumption that the basic terms and conditions of administratively final decisions are not likely to be altered.”); *Seaboard Coast Line R.R.—Investigation of Control & Modification of Traffic Conditions*, 360 I.C.C. 582, 606 (1979) (“It is not appropriate to reopen a 15-year-old merger proceeding to reconsider issues which were fully litigated. Such proceedings must have finality.”); *Ind. Hi-Rail Corp.—Lease & Operation Exemption—Norfolk & W. Ry. Co. Line Between Rochester & Argos, Ind.*, FD 32162, at 5 (STB served Jan. 30, 1998); *Tongue River R.R.—Constr. & Operation—W. Alignment*, FD 30186 (Sub-No. 3), at 5 (STB served June 15, 2011); *Ariz. Pub. Serv. Co. v. Atchison, Topeka & Santa Fe Ry.*, 3 S.T.B. 70, 75 (1998).

²⁹¹ *Ind. Hi-Rail Corp.*, FD 32162, at 4 (significant period of time considered to be under three years).

merger rules, the Board emphasized that “any post-merger conditions would have to be used sparingly, or else they would undermine the predictability and finality that carriers need to have in order to consummate any merger transaction.”²⁹² This policy is especially important in the context of merger conditions, given that the passage of time makes it increasingly difficult to differentiate the effects of a transaction from other changes in economic and competitive conditions. And that differentiation must occur for any Board condition to be connected to the merger and thus fall within the scope of the Board’s statutory authority to impose “conditions governing the transaction.”²⁹³

Fifth and finally, the principle that any exercise of the Board’s conditioning authority must be based on substantial evidence in this proceeding is a bedrock of reasoned decision making required by the Administrative Procedure Act.²⁹⁴ If the Board were to impose a general condition on the UP/NS merger to remedy the effects of subsequent downstream mergers that would spring into effect when a downstream merger occurs, there must be substantial evidence in this proceeding to support that condition.

With these constraints in mind, if the Board concludes that it must reserve jurisdiction to impose additional springing conditions—and that there is substantive evidence in this proceeding to justify that conclusion—it should define the specific

²⁹² *Major Rail Consolidation Procedures*, 5 S.T.B. 539, 582–83 (2001).

²⁹³ 49 U.S.C. § 11324(c).

²⁹⁴ *See* 5 U.S.C. §§ 551–59.

goals and objectives it is attempting to achieve, the specific circumstances and timetable that might warrant imposing additional conditions, the types of conditions it might impose, and explain how that defined springing condition comports with its statutory authority. The Board must then limit later conditions to those necessary to achieve the original goals and objectives.²⁹⁵

[DS-3] For each condition proposed in the Revised Application (including but not limited to CGP, open gateway commitments, access protections, and divestiture commitments), identify whether the condition would be rendered less effective by a subsequent major merger involving BNSF, CSXT, CN, or CPKC.

Applicants do not expect the conditions proposed in the Amended Application to be rendered less effective by any subsequent major mergers involving BNSF, CSX, CN, or CPKC. The Amended Application includes a targeted package of commitments designed to address specific issues presented by the merger.

Open Gateways. Applicants’ open gateway commitment would not be rendered less effective by a subsequent merger. To the contrary, such commitments would become more important. Today, UP, NS, BNSF, CSX, and CN generally are not subject to any permanent obligation to keep gateways open on commercially reasonable terms.²⁹⁶ Under longstanding precedent, a railroad may choose its preferred interline partners and may shift traffic to a different partner in order to provide end-to-end service. For example, BNSF could elect to work with CSX rather

²⁹⁵ See *Guilford Transportation Indus.*, 5 I.C.C.2d at 206 (“The unfairness that would result from imposing a condition of which the consolidating carriers had no advance knowledge at the time of consummation is obvious.”).

²⁹⁶ CPKC is the notable exception because it is the only Class 1 carrier subject to a broad open gateway commitment.

than NS for particular traffic, absent a specific commitment or condition. If there were subsequent mergers, the UP/NS commitment would continue to protect its customers' ability to use open gateways on commercially reasonable terms and would operate as an affirmative safeguard against any reduction in routing options. Assuming the same condition is imposed on subsequent end-to-end mergers, more customers and greater customer gateway optionality would be protected—forever.

Access and Buildouts. Similarly, proposed access protections would not generally be rendered less effective by a later merger. Those protections are designed to address identified facilities or customers and to preserve or create competitive options where the transaction could otherwise affect access. It is possible, however, that a later merger could affect the practical value of a specific access remedy. For example, if a customer facility is served by UP/NS, and BNSF receives a remedy that brings in CSX, and BNSF and CSX later merge, the additional competitive option created by the remedy could be reduced. But that would be a problem caused by the later BNSF/CSX transaction, not by this transaction. The solution would be for the Board to address that issue in the later proceeding by requiring an appropriate substitute remedy to preserve the competitive protection originally intended, such as access by CN or CPKC, or another targeted condition.

Divestitures. The proposed divestiture commitments would not be rendered less effective by subsequent mergers. Those divestitures are designed to prevent UP/NS control of TRRA and TTX. Once the shares are divested, neither TRRA nor TTX will be controlled by UP/NS. A subsequent merger involving BNSF, CSX, CN, or

CPKC necessarily cannot give UP/NS control over an asset that UP/NS no longer owns or controls after the divestiture. Thus, the competitive protection created by the divestitures remains intact regardless of whether other carriers later combine. If a later transaction involving the divestiture recipient created a separate control issue, the Board could address that issue in the later proceeding. But that would be a new issue arising from the later transaction, not a diminution of the effectiveness of the divestiture condition proposed here.

Committed Gateway Pricing. Committed Gateway Pricing could be enhanced by a subsequent merger, but the Board would need to study that issue carefully in the later proceeding.²⁹⁷ As explained above, CGP is best understood as a market-rate haulage program that extends the commercial reach of one carrier into a customer facility that is physically served only by the legacy UP or legacy NS. Consider a movement from a CSX sole-served origin in the East to a UP sole-served destination in the West. Under CGP, that movement would be eligible for a CGP rate from UP/NS, allowing CSX to offer the customer a single through rate from origin to destination. UP/NS, however, would not have the same opportunity because CSX would remain the bottleneck carrier at the origin and would not be obligated to provide UP/NS with a reciprocal market-based haulage arrangement into CSX's sole-served facility.

That could change if CSX later merged with another carrier and, as part of that later transaction, became subject to a reciprocal CGP obligation in favor of

²⁹⁷ See Supplemental Verified Statement of Dr. Mark A. Israel ¶¶ 25–50.

UP/NS. In that circumstance, UP/NS would have commercial access to the CSX sole-served origin through the reciprocal CGP, just as CSX would have commercial access to the UP/NS sole-served destination through Applicants' CGP. With both carriers holding CGP rates, both could compete for the sole-served-to-sole-served movement in a way that neither could today. That would be a massive expansion in the scope and competitive significance of the program.

Applicants caution, however, that the Board should not assume in this proceeding that two Committed Gateway Pricing programs necessarily would be better than one. No regulatory intervention into commercial rail markets is costless, even if only temporary. A reciprocal or expanded CGP regime could affect demand-based differential pricing, alter pricing incentives, and influence investment incentives at sole-served facilities. The Board therefore would need to evaluate the combined effect of any future CGP program in the context of the later transaction, including whether the incremental competition created by reciprocal CGP access would justify those costs. The Board may conclude that the enhanced competition created by two end-to-end transcontinental railroads competing head-to-head would eliminate the need for any further CGP expansion. But to answer the Board's question transparently, Applicants acknowledge that a future reciprocal CGP program could have an outsized effect on rail-to-rail competition for customers that are currently sole-served UP/NS to sole-served CSX/BNSF.

VIII. Passenger Rail

A. Introduction

Decision No. 21 requests supplemental information regarding certain aspects of Applicants' passenger rail operations. As demonstrated below, the additional information confirms that the proposed transaction will not adversely affect passenger service and reinforces the conclusions already established in the original Application and Amended Application.

First, Applicants explain that no passenger impact analysis is required for the Heartland Flyer because neither Union Pacific nor Norfolk Southern hosts that service. The Board's question arose from an erroneous Federal Railroad Administration report, and Amtrak has confirmed the error.

Second, although Board regulations require Applicants to analyze passenger impacts only on the lines of the applicant carriers, Applicants nevertheless conducted a supplemental analysis of the Conrail Lehigh Line in response to the Board's request. Using the best information reasonably available, that analysis confirms that the projected increase in freight traffic can be accommodated while maintaining existing passenger operations on New Jersey Transit's Raritan Valley Line.

Finally, Applicants provide additional evidence addressing the Board's request for further explanation of how Applicants' lines that host passenger service will have sufficient capacity to support projected freight increases while maintaining current passenger service levels. This submission explains in greater detail the capacity analyses underlying the Operating Plan, and Applicants' train scheduling, dispatching, monitoring, and communication processes. It also provides new

empirical analyses that show, based on historical operating data, that Applicants' lines have repeatedly accommodated traffic volumes at or above projected post-merger levels without degrading passenger performance and confirm that projected merger-related growth in freight traffic can be absorbed without impacting passenger service levels.

Together with the evidence already in the record, this supplemental information confirms that the transaction will not impair passenger operations or Applicants' ability to satisfy their statutory and contractual obligations to passenger rail providers.

B. Specific Responses

PR-1 Provide a passenger impact analysis for the Heartland Flyer service or explain why such an analysis is not needed.

A passenger impact analysis for the Heartland Flyer service is not needed because neither UP nor NS hosts Amtrak's Heartland Flyer.

In Decision No. 21, the Board stated that, according to the FRA's Intercity Passenger Rail Service Quality and Performance Reports, UP has hosted the Amtrak Heartland Flyer's northbound trains for 60 minutes each train run from October to December since at least 2021. *See* Decision No. 21 at 31. The FRA reports are incorrect. Applicants accurately identified the Amtrak trains hosted by UP in the original Application and Amended Application. UP does not host the Heartland Flyer.

Applicants contacted Amtrak to obtain an explanation for the FRA report cited by the Board. In a letter to UP, Amtrak confirmed the report is erroneous:

The Heartland Flyer operates one daily round trip between Oklahoma City and Fort Worth on BNSF, with an annual

extension to Dallas for a special event, the Big Game Train, which carries fans traveling for the annual University of Oklahoma – University of Texas college football game. Prior to 2015, the Fort Worth–Dallas segment was operated over UP; since 2015, it has been hosted by TRE. Amtrak’s Train Route Detail reflected UP based on conditions at the time [Amtrak] began running this extension and, given its infrequency, an update was inadvertently overlooked.

Applicants are providing a copy of Amtrak’s letter as a workpaper.²⁹⁸

PR-2 Because Conrail's Lehigh Line, over which NS has trackage rights, is projected to have a significant increase in train traffic, provide a passenger rail impact analysis for the Lehigh Line as Applicants prepared for NS- and UP-owned lines that carry passenger routes.

As explained in Applicants’ May 12, 2026, reply to comments on the completeness of the Amended Application, Applicants’ Operating Plan included the Conrail Lehigh Line (described further below) and other Conrail lines over which NS has operating rights. The MultiRail model included NS overhead trains and local Conrail trains that interchange with NS on Conrail-owned lines.²⁹⁹

Board regulations require Applicants to address the impacts on passenger service only for the lines of applicant carriers. *See* 49 C.F.R. § 1180.8(b)(2). Given that the Applicants neither own nor dispatch the Conrail Lehigh Line, Applicants’ passenger rail impact capacity analysis did not evaluate the Conrail Lehigh Line or the lines of other freight carriers over which passenger rail services operate. In Decision No. 21, the Board nevertheless directed Applicants to provide a passenger

²⁹⁸ *See* Workpaper “Amtrak Heartland Flyer Confirmation Email.pdf.”

²⁹⁹ *See* Applicants’ Reply to Comments on Completeness of Amended Application (UP-51/NS-49) at 38.

rail impact analysis for the Conrail Lehigh Line, *see* Decision No. 21 at 32, and Applicants provide that analysis here.

The Conrail Lehigh Line extends between Port Reading Jct. (Manville) and Newark, New Jersey. While NS and CSX both have operating rights over the line, it is owned, operated, and dispatched by Conrail. Passenger services are operated only over a portion of the line. Specifically, New Jersey Transit's Raritan Valley Line commuter service operates over approximately six miles of the Conrail Lehigh Line between CP Newark in Newark, New Jersey, and CP Aldene in Roselle Park, New Jersey.

Performing a passenger rail impact analysis similar to the analysis Applicants conducted for applicant lines requires two types of information: (1) the physical layout and characteristics of the line in order to determine the line's capacity; and (2) the current volume of all trains on the line to determine if the incremental increase in trains in the growth model will impact the line.

Because the Conrail Lehigh Line is not owned, operated, or dispatched by NS, Applicants worked to obtain this information to the best of their ability. For the Conrail Lehigh Line's physical data, Applicants used Conrail track chart and timetable resources. Because NS operates its own road trains over Conrail's Lehigh Line, NS has access to Conrail's track chart and timetable for the Lehigh Line. Applicants then worked to develop the line's capacity, using the same methodology employed for lines on the NS freight network. Applicants' approach to developing the line's capacity ensured the resulting corridor capacity evaluation would be consistent

with the analysis of the NS-owned system corridors. Applicants calculated that the line's fluid capacity is 116 trains per day.³⁰⁰

For the current volume of traffic on the line, Applicants already had data for NS's own overhead trains and Conrail trains that interchange with NS. Applicants consulted publicly available data for New Jersey Transit's Raritan Valley Line to obtain passenger train volumes.³⁰¹ Finally, for CSX train counts, Applicants relied on daily train count data from Conrail AEI readers located at Middlesex, New Jersey.³⁰²

Based on that analysis, Applicants provide the following information regarding the Raritan Valley Line service, consistent with what it provided in the Operating Plan for other passenger services.

New Jersey Transit's Raritan Valley Line service operates 52 trains per weekday and 36 trains per weekend day. As noted above, the trains operate over approximately six miles of the Conrail Lehigh Line between Newark, New Jersey,

³⁰⁰ See Workpaper "Conrail Lehigh Line – Highly Confidential.xlsx," Tab "Additional Details," Cells J2 and K2.

³⁰¹ Applicants relied on New Jersey Transit's train schedules effective March 15, 2026. See Workpaper "Conrail Lehigh Line – Highly Confidential.xlsx," Tab "NJT Raritan Valley Line Trains." This is the same process Applicants used as part of the environmental review process for passenger train counts on the lines of non-applicant carriers, and the March 2026 timetable is what Applicants used in that process for the Raritan Valley service.

³⁰² See Workpaper "Conrail Lehigh Line – Highly Confidential.xls," Tab "Summary," Cell E11. While NS has access to this AEI reader data for this particular line, NS does not have similar data for other foreign lines and thus would not necessarily be able to replicate this process for other foreign lines.

and Roselle Park, New Jersey. The Conrail Lehigh Line is double track throughout this entire segment.

Merger Impact: Applicants plan to add four to five trains per day on Conrail's Lehigh Line where the Raritan Valley service operates. Based on Applicants' analysis of the line's fluid capacity and current traffic levels, the route has sufficient capacity to support the projected freight increase while maintaining the current passenger service levels.³⁰³

PR-3 Address, in the passenger impact analysis and SAP, how the UP and NS lines used to host passenger services have sufficient capacity to support projected freight increases while maintaining current passenger service levels. Supplemental information could include, for example, a dispatching plan for handling post-merger traffic increases, train modeling evidence showing passenger rail impacts (or the lack thereof), and an analysis of the anticipated freight traffic schedules and how they impact the existing passenger services.

In Decision No. 21, the Board stated that Applicants' showing in their Operating Plan and Service Assurance Plan that UP/NS lines will have sufficient capacity to handle projected traffic growth "does not explain how passenger trains will actually be affected." Decision No. 21 at 32. Applicants respond to this concern in two ways. First, in Subsection A, Applicants detail the evidence in the Amended Application that passenger train service levels will not actually be affected by the projected freight traffic increases. Second, to further address the Board's concerns, in Subsection B, Applicants present new analyses of capacity and passenger train delay data that further confirm that Applicants' plans to increase freight traffic will not adversely affect passenger trains operating on UP/NS lines.

³⁰³ See Workpaper "Conrail Lehigh Line – Highly Confidential.xlsx," Tab "Summary."

1. Applicants’ lines will have sufficient capacity to support projected freight increases while maintaining current passenger service levels.

In the Amended Application, UP’s and NS’s chief operating officers specifically explained that where Applicants host passenger operations on lines expected to experience merger-related traffic growth, Applicants ensured the lines will have sufficient capacity to abide by their contractual obligations and legal commitments to passenger carriers.³⁰⁴ They systematically reviewed each passenger operation hosted by Applicants. They addressed the projected merger impact to each hosted operation and confirmed based on segment-by-segment capacity analyses that lines expected to experience merger-related traffic growth would either have sufficient capacity to support projected freight increases while maintaining service levels or sufficient capacity investment would be made to accommodate merger-related growth.³⁰⁵ Applicants provided workpapers supporting their capacity analyses and identified the specific portions of their analyses that were applicable to each passenger service.³⁰⁶

In Decision No. 21, the Board suggested that Applicants’ capacity analyses did not account for the particular characteristics of passenger traffic. *See* Decision No. 21 at 32. However, Applicants’ evaluation of whether UP/NS lines will have sufficient capacity to accommodate projected merger-related traffic growth without impairing

³⁰⁴ *See* Amended App., Vol. 2 at 756, Gehringer/Orr VS ¶ 296.

³⁰⁵ *See id.* at 757–80, Gehringer/Orr VS ¶¶ 297–362.

³⁰⁶ *See* Workpaper “UP Line-Of-Road Volume-Capacity Summary.xlsx,” Tab “Summary”; Workpaper “NS Line-Of-Road Volume-Capacity Summary.xlsx,” Tab “NS.”

freight and passenger operations was based on the approach the railroads use to address capacity questions—including capacity to support passenger traffic—in the ordinary course of business. UP’s and NS’s methodologies of determining whether a line segment has sufficient capacity to remain fluid are conservative by design to account for the mix of operating characteristics of the trains moving across their networks. Applicants’ analyses also implicitly account for the special status that passenger trains have on each railroad’s network such that they are not affected by capacity constraints in the same ways as freight trains. Amtrak trains receive a special statutory dispatching preference over freight transportation. *See* 49 U.S.C. § 24308(c). Amtrak service is also protected through contractual performance standards contained in Amtrak’s operating agreements with UP and NS. *Cf.* 49 U.S.C. § 24308(a). Applicants also have contracts addressing dispatching or service performance with all other passenger railroads they host on lines they expect to experience merger-related increases in train counts,³⁰⁷ with the exception of Metra, which operates over UP’s high-capacity lines in the Chicago area.³⁰⁸

The Board also suggested that Applicants could further address the Board’s concerns about the protection of passenger rail traffic by offering more details relating to the post-merger scheduling of this traffic, and the dispatching and monitoring of this traffic. Applicants address those suggestions in turn below.

³⁰⁷ *See* Amended App., Vol. 2 at 1048, 1050 and 1054, Turner VS ¶¶ 448, 451, and 458.

³⁰⁸ *See id* at 1049, Turner VS ¶ 450; *see also* Workpaper “UP Line-Of-Road Volume-Capacity Summary.xlsx,” Rows 142–145.

- a. **Applicants’ train scheduling process will help ensure that Applicants maintain current passenger service levels while supporting projected freight increases.**

In Decision No. 21, the Board suggested that Applicants could further address the Board’s concerns by providing “an analysis of the anticipated freight traffic schedules.” Decision No. 21 at 32. While Applicants cannot realistically design schedules for the anticipated new freight trains so long before the merger even has been authorized (as explained in more detail in the Service Assurance Plan), Applicants can address the Board’s suggestion by explaining *how* UP/NS will design schedules, and how that process will operate to protect passenger rail traffic. In short, UP has a process in place now, and UP/NS will use that same process, for scheduling new freight trains to ensure the new trains do not negatively impact passenger trains.

The foundation of the UP service design process is the recognition that any change to train plans creates risks of service degradation to the extent the plans are flawed in design or execution. UP has developed transportation plan change management workflows to guard against design and execution flaws. As discussed in the Service Assurance Plan, UP/NS will follow these change management procedures in implementing changes to train plans.

In the first step of the change management process, network planners will prepare a proposal for recommended changes that considers the impact of the proposed changes on critical network assets—main lines, yards and terminals, crews, locomotives, and railcars—and on customers. When a proposed change involves a line

on which passenger trains operate, the planners will also consider the impact of the change on passenger operations.³⁰⁹

In the second step of the change management process, the updated transportation plan will be circulated to a set of internal stakeholders for review. Stakeholders include representatives from potentially affected groups—*e.g.*, operating, marketing, locomotive and crew resources—as well as regional and local operating personnel and personnel responsible for passenger operations at the dispatching center. Each stakeholder department will review the proposal to determine whether it can be executed as planned. A proposal will not proceed until it receives approval from each stakeholder. The process is designed to be iterative—each stakeholder will be able to provide feedback, identify additional considerations, and grant contingent approval.³¹⁰

Only after all stakeholders provide approval will the implementation process begin. All changes will be made within a structure that includes clear expectations, careful oversight, and accountability. As UP/NS begins implementing changes to train plans, it will establish a regular cadence of weekly meetings between local and regional operating personnel and network planners to evaluate impacts of recent changes, discuss ongoing implementation efforts, and plan for additional future changes. These meetings will provide opportunities to give and receive feedback and adjust plans as necessary. UP/NS will not make any merger-related changes that

³⁰⁹ Amended App., Vol. 2 at 860, Turner VS ¶ 20.

³¹⁰ *Id.* at 860–61, Turner VS ¶ 21.

cannot be reversed if necessary. They will be able to revert to pre-merger train plans if unexpected issues arise with the new plans.³¹¹ Applicants' scheduling process will ensure that new freight trains do not negatively impact existing passenger services.

b. Applicants' dispatching, monitoring, and communication protocols will help ensure that Applicants maintain current passenger service levels while supporting projected freight increases.

In Decision No. 21, the Board also suggested that Applicants could further address the Board's concerns by including "a dispatching plan for handling post-merger traffic increases." Decision No. 21 at 32. In the Service Assurance Plan, Applicants explained that UP/NS will have dispatching, monitoring, and communications protocols to ensure that UP/NS fulfills UP's and NS's performance obligations to passenger rail providers.³¹² UP/NS will continue to train dispatchers to the current high standards, including providing training on Amtrak's right to preference under 49 U.S.C. § 24308(c) and UP/NS's obligations under passenger/commuter contracts.³¹³ In addition, UP/NS will initially continue to use the well-developed legacy UP and NS passenger teams' monitoring and communication protocols to communicate and coordinate with Amtrak and other passenger carriers as UP/NS implements merger-related changes to train operations.³¹⁴ Over time, UP/NS will streamline the legacy UP and NS relations with

³¹¹ *Id.* at 861–63, Turner VS ¶¶ 22–28.

³¹² *Id.* at 1057–75, Turner VS ¶¶ 466–515.

³¹³ *Id.* at 1070–72, Turner VS ¶¶ 499–507.

³¹⁴ *Id.* at 1073, Turner VS ¶ 510.

passenger service providers to provide a unified point of contact at UP/NS.³¹⁵ UP/NS will use its monitoring and communications protocols as an additional means of addressing any transaction-related issues that arise with passenger services, including through their recurring meetings with passenger service providers.³¹⁶ Applicants’ existing dispatching, monitoring, and communications protocols will further ensure that new freight trains do not negatively impact existing passenger services.

2. Applicants’ analyses of capacity utilization and train delay demonstrate that Applicants can maintain current passenger service levels while supporting projected freight increases.

In Decision No. 21, the Board also suggested that Applicants could further address the Board’s concerns through “train modeling evidence.” Decision No. 21 at 32. To address the Board’s desire for information in addition to Applicants’ evidence regarding capacity modeling, train schedule planning, and plans for dispatching, monitoring, and communication protocols, Applicants systematically analyzed the past performance of the passenger services they host to address the relationship between capacity utilization and passenger train delay.³¹⁷

³¹⁵ *Id.*, Turner VS ¶ 511.

³¹⁶ *Id.* at 1075, Turner VS ¶ 515–16.

³¹⁷ It was not practicable to develop rail dispatch modeling evidence in any realistic timeframe using the Rail Traffic Controller model. It would take many months of dedicated effort to prepare an RTC analysis for the 25 passenger services hosted by Applicants that operate over line segments anticipated to experience growth of one or more trains per day.

Applicants’ analyses rely on real-world data. The number of trains that move over a rail line varies from month to month. In many months over the past several years, UP and NS experienced train counts on line segments that host passenger traffic that equaled or exceeded the projected train counts after merger-related growth. Applicants’ analyses used this past variation in two ways:

First, Applicants performed an analysis of historical data for passenger services on UP or NS lines projected to experience merger-related growth of one train per day or more to test whether passenger train performance was negatively impacted when lines historically operated with train counts at or above projected post-merger train counts.³¹⁸ Applicants’ analyses show that when pre-merger train counts and capacity utilization are at or above projected post-merger train counts and capacity utilization, passenger train delay is not statistically different from, and in some cases is lower than, passenger train delay at lower traffic levels. Stated differently, Applicants’ analyses show that many of their lines have already accommodated traffic at levels equaling or exceeding projected post-merger levels without negatively impacting passenger services.

Second, in addition to the service-by-service approach in the first set of analyses, Applicants performed an analysis of historical data for passenger services on UP or NS lines projected to experience merger-related growth of one train per day

³¹⁸ Not all passenger services that travel on UP or NS lines are expected to encounter capacity segments with merger-related growth of one train per day or more. Given the Board’s concern for situations where there is anticipated to be a “projected freight increase,” Applicants did not evaluate lines where no such increase is projected.

or more to evaluate whether there is a statistically significant relationship between passenger delay and capacity utilization. The analysis showed that after accounting for differences across passenger services and seasonal patterns, capacity utilization was not a statistically significant predictor of delay. This second analysis provided further confirmation that projected merger-related freight traffic increases are not expected to negatively impact passenger service.

In the sections below, Applicants describe the analyses they performed and discuss the results of those analyses.

a. Separate analyses of individual passenger services

Applicants applied the same basic analysis to all passenger services hosted by UP and NS to provide assurance that Applicants can maintain current passenger service levels while supporting projected increases in freight traffic.

First, Applicants identified all capacity segments on UP and NS lines that host passenger service and that are projected to experience growth of one train per day or more.³¹⁹

Second, for each unique passenger service identified in step one, Applicants identified the line segment with the highest projected “growth capacity utilization”—that is, the segment with the highest number of projected post-merger trains per day compared with the segment’s post-merger capacity.³²⁰

³¹⁹ See Workpaper “PR-3 STB Supplemental.xlsx,” Tabs “UP Line of Road” & “NS Line-of-Road.”

³²⁰ See *id.*, Tab “Summary.”

Third, for each line segment identified in step two, Applicants calculated the segment’s monthly capacity utilization based on historical actual train density reporting³²¹ and the associated passenger service’s service performance metric. For Amtrak services, applicants used Host Railroad Delay Minutes per 10,000 train miles (“HRD”) because that is a standard metric calculated by Amtrak that was available for Amtrak services hosted by both UP and NS. For the commuter services on segments that are expected to experience one or more trains per day of merger-related growth (three UP-hosted commuter services and one NS-hosted commuter service), HRD was not available so Applicants used on-time performance measures for those services.

Applicants’ initial analysis compared the mean of the service performance metric for each passenger service for months in which capacity utilization of the associated segment was at or above the projected post-merger level with the overall mean service performance metric. The results are shown below.

³²¹ Applicants used UP HRD data for the period from January 2019 through April 2026. Applicants used NS HRD data for the period from June 2021 through April 2026, after determining discrepancies existed in NS’s older, archived data.

Table PR-1: Mean HRD Overall and for Months Above Growth Capacity Utilization³²²

Host Railroad	Passenger Service	Endpoint 1	Endpoint 2	Growth Capacity Utilization %	HRD Months Observed	Mean HRD	Months At/Above Growth Capacity Utilization	Mean HRD For Months At/Above Growth Capacity Utilization
UP	Sunset Limited	Wellton AZ	Picacho AZ	94.2%	88	1,633	19	1,452
UP	California Zephyr	Fernley NV	Weso NV	71.6%	88	1,122	-	-
UP	Missouri River Runner	River Jct MO	Pleasant Hill MO	43.2%	87	1,043	51	1,087
UP	Texas Eagle	Bg Sandy TX	Longview TX	76.2%	88	1,597	4	1,669
UP	Gold Runner	Elvas CA	El Pinal CA	58.1%	88	1,118	11	1,106
UP	Capitol Corridor	Roseville CA	Sparks NV	55.8%	88	613	1	488
UP	ACE	Stockton, CA	El Pinal CA	71.2%	N/A	N/A	1	N/A
UP	METRA(UP West)	Geneva IL	West Chicago IL	80.8%	N/A	N/A	11	N/A
UP	Metrolink (Riverside Line)	Bartolo CA	S. City of Indus. CA	54.9%	N/A	N/A	29	N/A
NS	Michigan / Blue Water	Chicago IL	Elkhart IN	63.5%	59	2,452	31	1,851
NS	Capitol Limited	Chicago IL	Elkhart IN	63.5%	42	1,637	21	1,157
NS	Cardinal	Lynchburg VA	Manassas VA	64.4%	59	1,600	-	-
NS	Carolinian	Charlotte NS	Salisbury NS	84.2%	59	746	-	-
NS	Crescent	New Orleans LA	Oliver Jct LA	99.7%	59	1,249	-	-
NS	Floridian	Chicago IL	Elkhart IN	63.5%	18	902	11	932
NS	Lake Shore Ltd	Chicago IL	Elkhart IN	63.5%	59	1,375	31	1,090
NS	Mardi Gras	New Orleans LA	Oliver Jct LA	99.7%	9	5,887	-	-
NS	Pennsylvanian	Conpit PA	Pittsburgh PA	67.1%	59	895	1	862
NS	Pere Marquette	Chicago IL	Elkhart IN	63.5%	59	2,452	31	1,851
NS	Piedmont	Charlotte NS	Salisbury NS	84.2%	59	738	-	-
NS	Richmond / Newport News / Norfolk	Jack VA	Poe VA	57.5%	59	676	2	593
NS	Roanoke	Lynchburg VA	Manassas VA	64.4%	59	676	-	-
NS	Wolverine	Chicago IL	Elkhart IN	63.5%	59	2,452	31	1,851
NS	Christiansburg	Walton VA	Roanoke VA	48.6%	59	676	-	-
NS	VRE	Lynchburg VA	Manassas VA	64.4%	N/A	N/A	-	N/A

For example, the Amtrak Sunset Limited’s segment between Wellton, Arizona, and Picacho, Arizona, has the highest projected post-merger capacity utilization for that service—94 percent. In 88 months from January 2019 to April 2026, the mean HRD was 1,633 minutes. In 19 months during that period, capacity utilization was at or above 94 percent, and the mean HRD was 1,452 minutes. In other words, when train counts *exceeded* the projected post-merger level, the Sunset Limited experienced *fewer* minutes of HRD than the overall average HRD.

As another example, the Amtrak Michigan/Blue Water’s segment between Chicago, Illinois, and Elkhart, Indiana, has the highest projected post-merger

³²² See Workpaper “PR-3 STB Supplemental.xlsx,” Tab “Summary.”

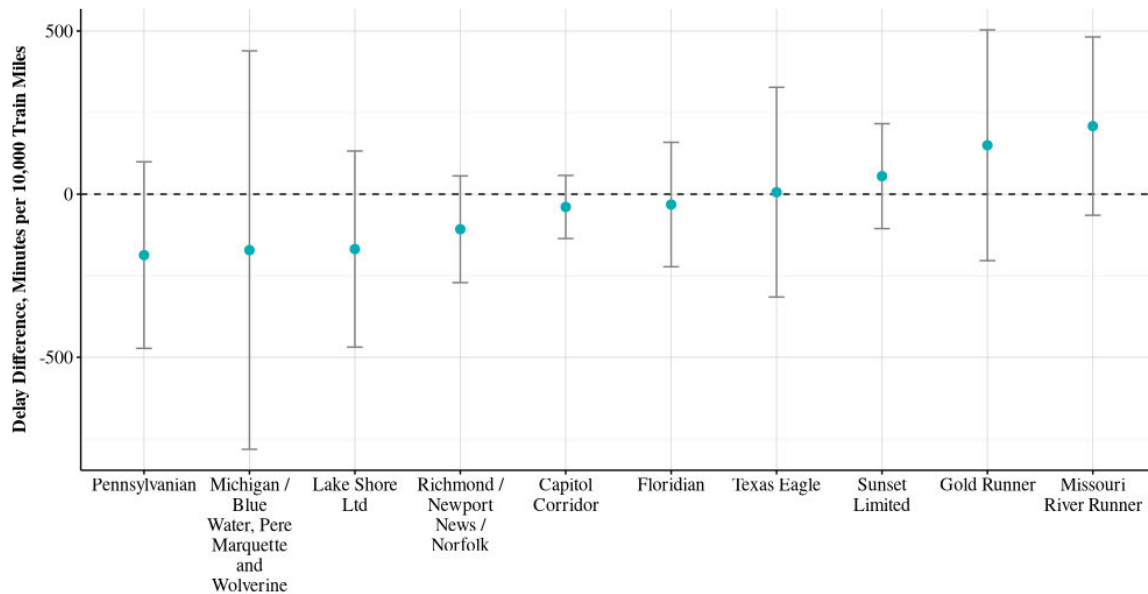
capacity utilization for that service—63 percent. In 59 months from June 2021 to April 2026, and the mean HRD was 2,452 minutes. In 31 months during that period, capacity utilization was at or above 63 percent, and the mean HRD was 1,851 minutes. In this example as well, when train counts *exceeded* the projected post-merger level, the passenger service experienced *fewer* minutes of HRD than the overall average HRD.

The results support the conclusion that Applicants can maintain current passenger service levels while supporting projected increases in freight traffic. However, Applicants recognized the analysis could be more rigorous. Applicants therefore asked Dr. Kristof Zetenyi of Analysis Group to conduct a more comprehensive statistical review of the data to assess whether projected merger-related increases in capacity utilization are expected to increase delay for passenger services.

Dr. Zetenyi's accompanying verified statement describes the analyses he conducted. One of the analyses was in certain respects similar to the route-by-route analysis described above. For each passenger service and associated line segment with the highest growth capacity utilization, Dr. Zetenyi estimated the mean average difference in passenger delay between months in which capacity utilization exceeded the projected post-merger level for the corresponding segment and months in which it remained below that level, after accounting for seasonal patterns. Where data exist for months in which capacity utilization exceeded the projected level, he analyzed whether any estimated passenger delay difference between the lower and higher

levels of capacity is statistically significant. The analysis showed passenger train performance was not meaningfully different when capacity utilization was below the fluid capacity threshold. Dr. Zetenyi’s analysis of the Amtrak services is reproduced below.

Figure PR-1: Comparison of Historical Passenger Delay Above and Below the Projected Post-Merger Capacity Utilization for the Relevant Amtrak Services³²³



Specifically, Dr. Zetenyi found that for the Amtrak passenger services analyzed, passenger delay (as measured by HRD) when capacity utilization for the corresponding segment exceeds the projected post-merger level is not statistically different from passenger delay when capacity utilization remains below that

³²³ Verified Statement of Dr. Kristof Zetenyi (“Zetenyi VS”) ¶ 32, Fig. 4.

threshold.³²⁴ He reached the same conclusion regarding the three commuter services analyzed.³²⁵

b. Analysis of the relationship between passenger delay and capacity utilization

In addition to estimating the average difference in passenger delay between months in which capacity utilization exceeded the projected post-merger level for the corresponding segment and months in which it remained below that level, Dr. Zetenyi also performed a pooled analysis to evaluate whether the historical data for passenger services on UP or NS lines that are expected to experience merger-related growth of one train per day or more show a statistically significant relationship between passenger delay and capacity utilization, after accounting for differences across passenger services and seasonal patterns. This analysis confirmed the pattern observed in the separate analyses: projected merger-related increases in capacity utilization on the segments studied are not expected to increase passenger train delay.³²⁶

The pooled analysis also includes a separate test for whether the relationship between capacity utilization and passenger train delay changes at higher capacity utilization levels—that is, it considers whether the overall data indicate that passenger train delays increase more sharply as capacity utilization increases. The

³²⁴ *See id.* ¶ 32.

³²⁵ *See id.* ¶ 33.

³²⁶ *See id.* ¶¶ 35–37.

test found no statistically significant evidence that passenger train delays increase more sharply at higher capacity utilization levels.³²⁷

c. Discussion of results

While it may seem counterintuitive that there is no statistically significant increase in passenger train delay as capacity utilization increases, the results of Applicants' detailed analyses reflect three main factors that directly answer the Board's concerns.

(1) Passenger services are subject to statutory and contractual standards.

First, the Board is correct in Decision No. 21 when it recognizes that passenger trains create special operating challenges as compared to freight trains. But to the extent those challenges put passenger trains in conflict with freight trains, it is freight service that experiences the impacts. The passenger services hosted by Applicants are generally subject to statutory and/or contractual standards that require preferential dispatching.³²⁸ Amtrak trains receive a special statutory dispatching preference over freight transportation and are also protected through contractual performance standards contained in Amtrak's operating agreements with UP and NS. Applicants also generally have contracts addressing dispatching or service performance with all other passenger railroads they host on lines they expect to experience merger-related increases in train counts. Further, Applicants' existing

³²⁷ See *id.* ¶¶ 38–39.

³²⁸ See Amended App., Vol. 2 at 1043–55, Turner VS ¶¶ 437–59.

dispatching, monitoring, and communications protocols will further ensure that new freight trains do not negatively impact existing passenger services.

(2) UP's and NS's fluid capacity threshold calculations are conservative.

Second, UP's and NS's fluid capacity threshold calculations are conservative by design. They represent capacity utilization levels at which the railroads can operate while remaining fluid—that is, without experiencing volume-related service deterioration. Indeed, railroads calculate capacity thresholds so they can operate above the thresholds without service deterioration. During these periods of high capacity utilization, additional operational focus is applied to ensure effective execution and maintain service performance. Applicants were thus confident in using their capacity threshold calculations to evaluate impacts on passenger service in the Amended Application.

(3) Most segments operate well below their fluid capacity thresholds.

Third, most of the UP and NS segments over which passenger services operate are well below their (conservative) fluid capacity thresholds. As a result, one would not expect increases in capacity utilization to impact passenger train operations. Going forward, even after merger-related growth, almost all of the segments will remain well below their fluid capacity thresholds. The table below highlights how much excess capacity will remain on even the most capacity-constrained segments used by each of the passenger services after merger-related growth.

Table PR-2: Most Segments Operate Well Below Capacity Thresholds³²⁹

Host Railroad	Passenger Service	Growth Plan (Trains/Day)	Merger Fluid Capacity High Threshold (Trains/Day)	Growth Plan vs. Merger Expsn High Fluid Capy (Trains/Day)
UP	Sunset Limited	35.8	38.0	2.2
UP	California Zephyr	14.3	20.0	5.7
UP	Missouri River Runner	12.5	29.0	16.5
UP	Texas Eagle	16.0	21.0	5.0
UP	Gold Runner	25.0	43.0	18.0
UP	Capitol Corridor	17.3	31.0	13.7
UP	ACE	36.3	51.0	14.7
UP	METRA(UP West)	80.8	100.0	19.3
UP	Metrolink (Riverside Line)	32.9	60.0	27.1
NS	Michigan / Blue Water	73.8	116.2	42.5
NS	Capitol Limited	73.8	116.2	42.5
NS	Cardinal	19.2	29.8	10.6
NS	Carolinian	25.1	29.8	4.7
NS	Crescent	20.0	20.1	0.1
NS	Floridian	73.8	116.2	42.5
NS	Lake Shore Ltd	73.8	116.2	42.5
NS	Mardi Gras	20.0	20.1	0.1
NS	Pennsylvanian	48.7	72.6	23.9
NS	Pere Marquette	73.8	116.2	42.5
NS	Piedmont	25.1	29.8	4.7
NS	Richmond / Newport News / Norfolk	20.9	36.4	15.5
NS	Roanoke	19.2	29.8	10.6
NS	Wolverine	73.8	116.2	42.5
NS	Christiansburg	32.7	67.4	34.7
NS	VRE	19.2	29.8	10.6

Applicants thus have plenty of capacity to accommodate growth on almost all the segments traversed by passenger services. One exception involves the Sunset Limited Route, but UP/NS has a long-term plan to increase capacity on that Wellton-Picacho bottleneck segment when an increase becomes necessary by adding 4.9 miles

³²⁹ See Workpaper “PR-3 STB Supplemental.xlsx,” Tab “Summary.”

of double track to connect its Wellton and Noah sidings, which would increase capacity on that segment to 45 trains per day.

The data also show high projected capacity usage on a NS line segment over which both the Crescent and Mardi Gras operate. That segment (New Orleans to Oliver Junction), which both Amtrak services share, shows a projected growth capacity utilization of 99.7 percent. Although that utilization is close to capacity, there is no reason this should impact passenger service given that NS's fluid capacity threshold calculations are conservative by design and the analysis described above.

Moreover, the projected capacity utilization for this particular segment must be understood in context.

First, in analyzing the capacity of the New Orleans to Oliver Junction segment, NS looked to the most capacity constrained portion of that segment, which is a single-tracked section between Shrewsbury and Canal. But Amtrak does not run between Shrewsbury and Canal at all. Rather, Amtrak's trains enter at East City Junction and operate over the remainder of the segment to Oliver Junction, which is double tracked. The capacity analysis and utilization, therefore, was heavily influenced by a segment of single-track line that passenger trains do not traverse.

Second, NS is undertaking pre-merger capacity enhancements on the NS Back Belt line in that area that will increase capacity on the segment overall, thus benefitting both the Mardi Gras and the Crescent.³³⁰ These projects grew out of litigation related to the Mardi Gras service launch that was voluntarily settled. In

³³⁰ See Amended App., Vol. 2 at 716, 767, Gehringer/Orr VS ¶¶ 226–27, 327.

particular, new crossovers are being built at St. John and Terminal Junction and an existing crossover at Elysian Fields is being upgraded, creating increased operational flexibility on the Back Belt and improving overall fluidity. A design and construction agreement was executed in March of 2026 and NS is currently conducting preliminary engineering for these projects.

In sum, this evidence confirms that Applicants’ plans to increase freight traffic will not adversely affect passenger trains operating on UP/NS lines.

IX. Prima Facie Case

The Board noted in Decision No. 21 that its “assessment of the supplemental filing may include an evaluation as to whether Applicants have presented a prima facie case.” Decision No. 21 at 33. Applicants respectfully submit that this test is easily met, and that the Board requires no additional input from other parties to reach that conclusion.

The *prima facie* evaluation tests whether the facts in the Amended Application, “construed in their most favorable light,” are sufficient to support a finding that the transaction is consistent with the public interest (and do not affirmatively demonstrate that it is not). *See* 49 C.F.R. § 1180.4(c)(8).³³¹ The evaluation does not depend on whether the Board or other parties agree in all respects with Applicants’ evidence or the conclusions that Applicants draw from that evidence. The only question is whether the application “contain[s] enough evidence to enable

³³¹ *See Railroad Consolidation Procedures*, 363 I.C.C. 767, 769–70 & n.6 (1981) (analogizing to standards in “judicial proceedings . . . after presentation of plaintiff’s evidence . . . [such as] the motion for summary judgment and the motion for directed verdict”).

the [agency] to exercise its statutory responsibilities” and “rationally to apply the criteria of [§ 11324(b)].”³³²

Taking the evidence in the light most favorable to Applicants, the Amended Application makes a prima facie showing that the public benefits of the transaction outweigh “any anticompetitive effects, potential service disruptions, or other merger-related harms,” 49 C.F.R. § 1180.1(c), and that the transaction thus is “consistent with the public interest,” 49 U.S.C. § 11324(c).

As for public benefits, the Amended Application shows that the proposed transaction will create single-line service options for thousands of rail customers. The Board has repeatedly recognized single-line service as a substantial public benefit that unlocks better service and rates for rail customers. The Amended Application includes quantitative evidence, backed by expert opinions, that the proposed transaction will attract nearly two million annual rail-to-rail and truck-to-rail diversions driven by the creation of faster, safer, more efficient single-line options that do not exist today; produce operating cost and capital expenditure savings of approximately \$1.1 billion; and yield more than \$3.5 billion in annual shipper savings from diverting approximately 2.1 million truckloads of freight to rail. It also contains evidence that these new options will deliver value across the network: current interline customers and new customers gain faster, more reliable, more direct routings; communities along affected corridors see reduced highway congestion and

³³² *Union Pacific Corp.—Control—Chicago & North Western Transp. Co.*, 9 I.C.C.2d 939, 950 (1993) (*UP-Control-CNW* referred here to then-§ 11344(b), which was recodified in ICCTA at the current § 11324(b)).

lower road maintenance costs; and the public benefits from a meaningful reduction in greenhouse gas emissions and a reduction in highway accidents as freight shifts from truck to rail.

Moreover, to the extent that the Board believes that a *prima facie* case requires evidence of “enhanced competition” beyond the extensive new competition created by the transaction itself, the Amended Application includes as an additional public benefit an explicit commitment to enhance rail-to-rail competition through a Committed Gateway Pricing program that will create new haulage-like opportunities for a wide range of shipments that otherwise would not be directly affected by the transaction. The program, especially with the expansion described in this submission, creates thousands of new competitive routing options that did not exist before.

On the other side of the ledger, the Amended Application contains analysis from Dr. Elizabeth Bailey that the proposed transaction would have no significant potential horizontal competitive effects and does not raise any meaningful geographic competition concerns, and that any limited anticompetitive effects would be outweighed by the quantifiable benefits expected from the transaction. It also includes Dr. Mark Israel’s analysis that the proposed transaction poses no concerns about vertical foreclosure and would not reduce the number of viable independent routings in corridors where UP and NS may serve different legs of the movement. And any *prima facie* evaluation also must take into account the comprehensive set of competition-preserving commitments addressing every category of competitive concern the Board has historically scrutinized in rail mergers: an open gateway

commitment; remedies for the limited 2-to-1 and 3-to-2 facilities; preservation of build-in and build-out rights; a bottleneck commitment; and commitments to ensure the continued neutrality of key terminal railroads.

The Amended Application also contains detailed evidence addressing how the proposed transaction will avoid service disruptions (and also provides remedies to address any disruptions that do occur); protect passenger services; support national defense priorities; and address environmental requirements.

In short, taken in the light most favorable to Applicants, the evidence contained in the Amended Application easily permits the Board “rationally to apply the criteria” laid out in its governing statute and regulations and to “exercise its statutory responsibilities.”³³³

Finally, Applicants respectfully submit that the Board needs no further inputs if it chooses to evaluate the sufficiency of Applicants’ *prima facie* case showing at this time. Because the Board is required to consider whether the Amended Application on its face “disclos[es] facts” sufficient to meet the statutory standard, and because the Board is required to take those “disclos[ed] facts” in the light most favorable to Applicants, any competing evidence that could be offered by other parties would not be germane to the Board’s analysis. 49 C.F.R. § 1180.4(c)(8). To the extent that other parties wish to present their own evidence, and challenge the merits of the proposed

³³³ *UP-Control-CNW*, 9 I.C.C.2d at 950; *see also, e.g., CSX Corp.—Control & Operating Leases/Agreements—Conrail Inc.*, FD 33388, at 4 (STB served July 29, 1997) (prima facie case established when evidence “*could* support a finding” that transaction would not result in adverse impacts claimed by commuter railroads) (emphasis added).

transaction, they obviously will have an opportunity to do so before the close of the public record.

X. Conclusion

Applicants have now fully responded to each of the Board’s requests for supplemental information in Decision No. 21. The responses, together with the evidence in the Amended Application, establish that the proposed transaction is consistent with the public interest. The UP/NS merger will enhance competition, improve service and safety, expand transportation options for shippers, and reduce prices for consumers. A stronger and more efficient transcontinental rail network will also support the ongoing reshoring of manufacturing to the United States by improving the efficiency, reliability, and resilience of domestic supply chains, thereby advancing broader national security and economic competitiveness objectives.

Applicants’ supplemental submissions reinforce these benefits with additional enforceable commitments addressing competition, service assurance, shipper access, and merger oversight, including expanded Committed Gateway Pricing, the Targeted Access Program, and the Rate ADR Program. Where potential merger-specific concerns have been identified, Applicants have proposed conditions designed to address them.

The record demonstrates the proposed transaction satisfies the statutory public interest standard in 49 U.S.C. § 11324(c). Applicants therefore respectfully request that the Board advance this proceeding in a timely manner.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on this 27th day of July, 2026, the foregoing document was served by first-class mail or email 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/ Pegah Nabili

APPENDIX A

Targeted Access Program

Overview

This Targeted Access Program would allow customers to request reciprocal switching access in the event service on the combined UP/NS were to temporarily deteriorate for any customer during the three-year merger implementation period. This program would be in addition to the Service Assurance Plan's Damages ADR Program.

Definitions

For purposes of this Program, the following terms shall have the meanings set forth below:

1. **"Agreement to Switch"** is a notice provided by Carrier after a Request for Switching Access indicating Carrier's agreement to provide a switch and not to seek arbitration for an affirmative defense.
2. **"Arbitrator"** means the neutral decision-maker appointed pursuant to Section 4 to administer and resolve disputes under this Program.
3. **"Carrier"** means the combined Union Pacific/Norfolk Southern rail carrier that is subject to the jurisdiction of the STB.
4. **"Customer"** means the shipper on the bill of lading who is responsible for paying the freight charges for the transportation service that is the subject of the Switching Request and that elects to participate in this Switching program.
5. **"Customer ISP"** is a calculation of the average ISP for all carload shipments to or from the specific Customer facility that is the subject of the Switching Request for the 12-week period immediately preceding the Notice of Intent to Arbitrate. Unit or intermodal shipments are not included in Customer ISP.
6. **"Customer Original ETA"** is a calculation of the average Original ETA for all carload shipments to or from the specific Customer facility that is the subject of the Switching Request for the 12-week period immediately preceding the Notice of Intent to Arbitrate. Unit or intermodal shipments are not included in Customer Original ETA.
7. **"Industry Spot & Pull" or "ISP"** has the same meaning as that adopted in *Updating Class I Rail Carrier Reporting Requirements*, Ex Parte 787 (served May 8, 2026) and codified at 49 C.F.R. § 1251.2.

8. **“JAMS”** means the company Judicial Arbitration and Mediation Services (“JAMS”). *See* www.jamsadr.com.
9. **“Notice of Intent to Arbitrate Affirmative Defense”** means a written notice served by Carrier on both the Customer and JAMS to commence arbitration under this Agreement regarding an affirmative defense to a Request for Switching Access.
10. **“Notice of Intent to Arbitrate Rate for Agreed Switch”** means a written notice served by a Customer on both the Carrier and JAMS to commence arbitration under this Agreement regarding the rate quoted in an Agreement to Switch.
11. **“Original Estimated Time of Arrival”** or “Original ETA” has the same meaning as that adopted in *Updating Class I Rail Carrier Reporting Requirements*, Ex Parte 787 (served May 8, 2026) and codified at 49 C.F.R. § 1251.2.
12. **“Request for Switching Access”** means a request that Carrier provide reciprocal switching access to another Class I railroad at a Customer facility that is sole-served by Carrier.
13. **“STB”** means the Surface Transportation Board.
14. **“Terminal area”** is to be defined based on applicable STB caselaw, which has defined a terminal area to mean a commercially cohesive area in which two or more railroads engage in the local collection, classification, and distribution of rail shipments for purposes of line-haul service. A terminal area is characterized by multiple points of loading/unloading and yards for such local collection, classification, and distribution. A terminal area (as opposed to main-line track) must contain and cannot extend significantly beyond recognized terminal facilities, such as freight or classification yards.

1. Customer Right to Request Metrics

- 1.1 Any Customer shall have the right to request in writing to Carrier, Customer Original ETA and Customer ISP for carload or manifest traffic delivered to any of that Customer’s facilities. Such requests may be made at any time. Carrier shall provide Original ETA and ISP for the requested Customer facility sufficient to calculate the average for the twelve-week period preceding the information request. The information will be provided within three business days of the written request.

2. Performance Standards

- 2.1 The performance standards in this section apply only to arbitrations under this program. Carrier's performance against these standards is not admissible evidence of the adequacy or inadequacy of service in any other proceeding, including an arbitration seeking damages under the program set forth in Appendix B to the Service Assurance Plan or an STB proceeding.
- 2.2 Customer Original ETA standard: Carrier meets the Customer Original ETA standard if either (1) Customer Original ETA is over 70%; or (2) Customer Original ETA is not lower than the average pre-merger Original ETA for that Customer facility (as measured for the 12-month period before the STB decision approving the merger of UP and NS).
- 2.3 Customer ISP standard: Carrier meets the Customer ISP standard if either (1) Customer ISP is over 85%; or (2) Customer ISP is not lower than the average pre-merger ISP for that Customer facility (as measured for the 12-month period before the STB decision approving the merger of UP and NS).

3. Presumptive right to switch

- 3.1 If either Customer Original ETA or Customer ISP are below the performance standards in Section 2, Carrier shall have 30 days to cure the metric failure according to the terms of this section. The 30 days shall run from the date that the metric calculations were provided to the Customer pursuant to Section 1.1.
- 3.2 For purposes of this program, a metric failure shall be cured if the Customer Original ETA and Customer ISP for the facility in question exceed the thresholds in Section 2 for the 30 days following the date that the metric calculations were provided.
- 3.3 If the Carrier does not cure the metric failure pursuant to section 3.2, then the Customer is presumptively entitled to reciprocal switching access to another Class I carrier at the Customer facility where the metric failure occurred.
- 3.4 A Customer that is presumptively entitled to reciprocal switching access at facility has five business days to notify the Carrier if it wishes to be provided with switching access at that facility. Notice is provided through a written Request for Switching Access identifying the facility or facilities with an uncured metric failure and for which Customer desires reciprocal switching.

- 3.5 Within five business days of receiving a Section 3.4 notice that a Customer desires reciprocal switching access, Carrier shall provide Customer with either (1) an Agreement to Switch stating that Carrier agrees to the reciprocal switch and stating the reciprocal switch rate that will apply to the Customer's traffic; or (2) a Notice of Intent to Arbitrate Affirmative Defense stating that Carrier intends to assert one or more affirmative defenses and identifying those particular affirmative defenses.
- 3.6 If Customer disagrees with a rate quoted in the Agreement to Switch, it may serve a Notice of Intent to Arbitrate Rate for Agreed Switch.

4. Initiation and Appointment

- 4.1 Carrier may commence arbitration of an affirmative defense or defenses by serving a Notice of Intent to Arbitrate Affirmative Defense on a Customer as set forth in 3.5 and on JAMS.
- 4.2 A Customer may commence arbitration of a switch rate by serving a Notice of Intent to Arbitrate Rate for Agreed Switch upon both the Carrier and JAMS.
- 4.3 Within 21 calendar days of receipt, JAMS shall appoint the Arbitrator if the parties have not agreed upon one.
- 4.4 If the parties cannot agree, JAMS shall appoint a neutral former federal judge from the United States district courts or courts of appeal.
- 4.5 The Arbitrator shall convene an initial conference within 14 calendar days of appointment to establish the schedule and procedures.

5. Confidentiality and Discovery

- 5.1 All aspects of the arbitration proceedings, including all submissions, arbitrator rulings, and the arbitrator's final decision, shall remain confidential.
- 5.2 The Arbitrator may order discovery of nonprivileged matters that is: (i) relevant to any claim or defense; and (ii) proportional to the needs of the case, considering the issues at stake, the amount in controversy, access to information, burdens of discovery, and cost–benefit balance.

6. Venue and Decision

- 6.1 Unless otherwise agreed by the parties, arbitration shall take place in the venue identified in the tariff that governs the transportation at issue. The parties may agree to conduct proceedings by videoconference.
- 6.2 The Arbitrator shall issue a reasoned written decision within 90 calendar days of the institution of the arbitration, unless the parties mutually agree to grant the Arbitrator additional time.
- 6.3 The decision shall be final, binding, and enforceable in any court of competent jurisdiction.

7. Affirmative Defense Arbitration

- 7.1 Carrier shall not be required to provide a reciprocal switch if the Arbitrator finds that the Carrier has proven any of the affirmative defenses below:
 - (a) The Customer facility at issue is not located in a Terminal Area.
 - (b) The Customer facility at issue is not sole-served by Carrier.
 - (c) The Customer traffic at issue is not eligible for the program under the criteria of 9.2.
 - (d) The Carrier's failure to meet the performance standard was due to extraordinary circumstances beyond the carrier's control, including but not limited to operational impacts stemming from natural disasters, severe weather events, flooding, accidents, derailments, washouts, and extraordinary surges in volume.
 - (e) The Carrier's failure to meet the performance standard was caused by the actions or inactions of the Customer or a third party, including dispatching choices of a third party, highly unusual traffic patterns, or the customer's failure to increase its operations to help address surges in volume.
 - (f) Reciprocal switching of the Customer facility at issue is not operationally feasible or would materially degrade system fluidity, require significant capital investment or otherwise unduly impair Carrier's ability to serve existing customers.
- 7.2 If the Arbitrator finds that the Carrier has failed to prove an affirmative defense, at the Customer's request the Arbitrator may set a maximum rate for the ordered switches.

- (a) If the facility in question is located in a Terminal Area for which either UP or NS had a published reciprocal switching rate for similar traffic on July 27, 2025, then that published reciprocal switching rate then in effect would be presumptive evidence of the appropriate rate.
- (b) If the facility in question is located in a Terminal Area for which neither UP nor NS had a published reciprocal switching rate for similarly situated traffic on July 27, 2025, then the Arbitrator may consider other relevant evidence of an appropriate reciprocal switching rate, including evidence of other premerger UP or NS reciprocal switching rates for similarly situated traffic.

8. Standard for Switch Rate Arbitration

- 8.1 In a Customer-initiated arbitration over the level of a rate offered by Carrier for an Agreed Switch, the Arbitrator shall apply the standards of 7.2 to determine the appropriate maximum rate.

9. Relief Limitations

- 9.1 Switching orders under this program shall be effective for six months after the arbitrator's decision, and shall automatically terminate after one year. For an agreed switch where there is no arbitration over the rate, the offered reciprocal switching will be effective for one year after the Agreement to Switch.
- 9.2 This program applies to commodities shipped moving under common carrier rates in carload service (not contract service). It does not apply to intermodal traffic, but does apply to commodities that otherwise would be subject to exemptions pursuant to 49 C.F.R. Part 1039.
- 9.3 The Arbitrator may not award monetary relief.
- 9.4 The reciprocal switching ordered by the arbitrator shall be limited to the customer facilities set forth in the Request for Switching Access and does not extend to other customers or facilities.

10. Appeal

- 10.1 An appeal of right may be taken to the STB within 20 days of the arbitration decision.
- 10.2 Appeals are limited to cases where: (i) the decision is inconsistent with sound principles of rail regulation; (ii) a clear abuse of arbitral authority or discretion occurred; or (iii) relief limitations were violated.

10.3 If the STB vacates the decision, the parties shall notify JAMS, which shall appoint a new Arbitrator within 30 days following final judgment (including appeals).

10.4 The STB's decision on appeal is binding only on the parties to the arbitration and shall have no precedential value.

11. Costs & Arbitration Fees

11.1 Each party shall bear its own costs and an equal share of arbitration fees and expenses.

12. Preservation of Rights

12.1 Participation in this Targeted Access program is voluntary, and customers retain their full rights to bring disputes before the STB at any time.

13. Duration and Review

13.1 This Targeted Access program shall remain in effect for three years from the effective date of STB approval of the Union Pacific-Norfolk Southern merger transaction.

APPENDIX B

Alternative Dispute Resolution Program For Common Carrier Rates

If it becomes operative, this Alternative Dispute Resolution (“ADR”) program would provide customers of the combined Union Pacific/Norfolk Southern with a voluntary, efficient means of resolving rate disputes during the merger oversight period.

This ADR program is designed to function as a tool for timely correction if there is a lag in the realization of competitive benefits from the merger by offering a streamlined process to resolve certain rate disputes outside of formal STB regulatory proceedings and Participation in this program is optional, and customers may instead seek relief directly from the STB.

Definitions

For purposes of this Agreement, the following terms shall have the meanings set forth below:

1. “**Arbitrator**” means the neutral decision-maker appointed pursuant to Section 1 to administer and resolve disputes under this Agreement.
2. “**Carrier**” means the combined Union Pacific/Norfolk Southern rail carrier that is subject to the jurisdiction of the STB.
3. “**Customer**” means the shipper on the bill of lading who is responsible for paying the freight charges for the transportation service that is the subject of the Rate Dispute and that elects to participate in this ADR program.
4. “**JAMS**” means the company Judicial Arbitration and Mediation Services (“JAMS”). *See* www.jamsadr.com.
5. “**Notice of Intent to Arbitrate**” means a written notice served by a Customer on both the Carrier and JAMS to commence arbitration under this Agreement.
6. “**Rate Dispute**” means a dispute concerning the reasonableness of a rate charged by a carrier.
7. “**STB**” means the Surface Transportation Board.
8. “**URCS**” means the STB’s Uniform Railroad Costing System.

1. Initiation and Appointment

- 1.1 A Customer may commence arbitration by serving a Notice of Intent to Arbitrate upon both the Carrier and JAMS.
- 1.2 Within 21 calendar days of receipt, JAMS shall appoint the Arbitrator if the parties have not agreed upon one.
- 1.3 If the parties cannot agree, JAMS shall appoint a neutral former federal judge from the United States district courts or courts of appeal.
- 1.4 The Arbitrator shall convene an initial conference within 14 calendar days of appointment to establish the schedule and procedures.

2. Confidentiality and Discovery

- 2.1 All aspects of the arbitration proceedings, including all submissions, arbitrator rulings, and the arbitrator's final decision, shall remain confidential.
- 2.2 The Arbitrator may order discovery of nonprivileged matters that is: (i) relevant to any claim or defense; and (ii) proportional to the needs of the case, considering the issues at stake, the amount in controversy, access to information, burdens of discovery, and cost-benefit balance.

3. Waybill Sample

- 3.1 Unless the parties have agreed not to request Waybill Sample data, the parties must submit a copy of the Notice of Intent to Arbitrate to the Director of the Board's Office of Economics. The Board's rules at 49 C.F.R. § 1108.22(g)(1) governing release of Waybill Sample data will govern release of Waybill Data for purposes of this ADR program.

4. Venue and Decision

- 4.1 Unless otherwise agreed by the parties, arbitration shall take place in the venue identified in the tariff that governs the transportation at issue. The parties may agree to conduct proceedings by videoconference.
- 4.2 The Arbitrator shall issue a reasoned written decision within 180 calendar days of the institution of the arbitration, unless the parties mutually agree to grant the Arbitrator additional time.
- 4.3 The decision shall be final, binding, and enforceable in any court of competent jurisdiction.

5. Advance Notice Period

- 5.1 Prior to commencing arbitration as set forth in Section 1, Customer shall provide Carrier with at least 30 days' notice of Customer's intent to commence arbitration under this program and shall describe the rate reasonableness dispute it intends to allege in sufficient detail so that Carrier has the opportunity to address the dispute.
- 5.2 During the notice period described in 5.1, Carrier and Customer will hold a settlement conference to make best efforts to find a mutually agreeable resolution of the dispute. Both parties will bring an authorized corporate representative with settlement authority to that settlement conference. All settlement discussions between the parties during this advance notice period shall be inadmissible in the Arbitration.
- 5.3 The Notice of Intent to Arbitrate must certify this settlement conference took place, or was waived by mutual consent of both parties.

6. Standard for Relief

- 6.1 The Arbitrator may determine whether the Carrier failed to provide reasonable rates to the Customer within two years prior to the Notice of Intent to Arbitrate.
- 6.2 The Arbitrator may grant relief to the Customer if (a) the Carrier has market dominance, and (b) the Carrier failed to provide reasonable rates to the Customer.
- 6.3 In determining market dominance, the Arbitrator shall apply the definition in 49 U.S.C. 10707 and STB precedent. However, the Arbitrator may not consider the Limit Price Test described in *M&G Polymers USA, LLC v. CSX Transp., Inc.*, NOR 42123, slip op. at 11–18 (STB served Sept. 27, 2012) in deciding market dominance. Notwithstanding anything to the contrary, a carrier does not have market dominance for any rate with a revenue-to-variable cost (R/VC) ratio below 180%, using the unadjusted URCS model.
- 6.4 In determining whether the Carrier provided reasonable rates, the Arbitrator shall consider the STB's methodologies for setting maximum lawful rates, giving due consideration to the need for differential pricing to permit a rail carrier to collect adequate revenues (as determined under 49 U.S.C. 10704(a)(2)). The Arbitrator may base its decision on the Board's existing rate review methodologies, revised versions of those methodologies, new methodologies, or market-based factors, except that the Arbitrator may not consider the "revenue adequacy constraint"

described in the *Coal Rate Guidelines, Nationwide*, 1 I.C.C.2d 520 (1985). Any rate reasonableness methodology considered by the Arbitrator must be consistent with sound principles of rail regulation economics. For the avoidance of doubt, a finding of market dominance cannot be used to presume the challenged rate is unreasonable.

7. Precedent

- 7.1 Decisions rendered by arbitrators pursuant to these rules may be guided by, but need not be bound by, agency precedent.
- 7.2 Arbitration decisions shall have no precedential value and may not be admitted into evidence or relied upon in any manner during subsequent arbitrations under this program, other than to address claims of improper disaggregation as described in Section 8.2.

8. Scope of Available Relief

- 8.1 This program applies to non-exempt commodities shipped under tariff service, and does not apply to contract service or exempt commodities, unless otherwise agreed. The Arbitrator may resolve any disputes over whether the challenged rates were established pursuant to a contract, as authorized by 49 U.S.C. § 10709, and thus cannot be challenged through this program.
- 8.2 The Customer may not subdivide larger claims into multiple proceedings to avoid monetary limits. All claims during the statute of limitations period must be filed in a single arbitration.
- 8.3 Reparations or prescriptions may not be set below 180% of variable cost, as determined by unadjusted URCS.
- 8.4 Monetary relief is capped at \$4,000,000 (as indexed annually for inflation using the Producer Price Index and a 2007 base year) over two years, inclusive of prospective rate relief, reparations for past overcharges, or any combination thereof. The monetary limit on relief will apply to the difference between the challenged rate and the maximum lawful rate established by the Arbitrator, whether in the form of reparations, a rate prescription, or a combination of the two. Any rate prescription will automatically terminate once the Customer has exhausted the relief available.
- 8.5 The complainant will be barred from bringing another complaint against the same rate for the remainder of any prescription period. Once a rate prescription expires, the Carrier's rate making freedom will be restored with a regulatory safe harbor at the challenged rate for the remainder

of the 2-year period, with appropriate adjustments for inflation using the rail cost adjustment factor, adjusted for inflation and productivity (RCAF-A). If, however, the Carrier establishes a new common carrier rate once the rate prescription expires, and the new rate exceeds the inflation-adjusted challenged rate, the Customer may bring a new arbitration against the newly established common carrier rate (or pursue relief before the STB).

- 8.6 Damages are limited to those incurred within two years prior to the Notice of Intent to Arbitrate.
- 8.7 Customer may seek relief for direct damages only, not indirect damages (*e.g.*, lost profits). All further limitations on relief as set forth in the Interstate Commerce Act or in the governing tariffs that apply to the transportation at issue also govern.
- 8.8 The Arbitrator may not award injunctive or equitable relief, other than a rate prescription to govern the disputed transportation rates. However, no rate prescription may extend beyond two years.

9. Appeal

- 9.1 An appeal of right may be taken to the STB within 20 days of the arbitration decision.
- 9.2 Appeals are limited to cases where: (i) the decision is inconsistent with sound principles of rail regulation economics; (ii) a clear abuse of arbitral authority or discretion occurred; or (iii) award limitations were violated.
- 9.3 The STB's decision on appeal is binding only on the parties to the arbitration and shall have no precedential value.
- 9.4 If the STB vacates the decision, the parties shall notify JAMS, which shall appoint a new Arbitrator within 30 days following final judgment (including appeals).

10. Costs & Arbitration Fees

- 10.1 Each party shall bear its own costs and an equal share of arbitration fees and expenses.

11. Preservation of Rights

- 11.1 Participation in this ADR program is voluntary, and customers retain their full rights to bring rate disputes before the STB at any time.

However, a Customer cannot challenge the same rate before both the Arbitrator and the STB.

12. Duration

- 12.1 This ADR program shall remain in effect until the end of the oversight process imposed by the STB.
- 12.2 This ADR program shall terminate if the combined Union Pacific/Norfolk Southern opts into the STB's Small Rate Case Arbitration Program set forth at 49 C.F.R. § 1108.22, which is currently both inoperable and the subject of two petitions for reconsideration in EP 765, *Joint Pet. for Rulemaking to Establish an Alternative Voluntary Arbitration Program for Small Rate Disputes*.

ATTACHMENT 1

**BINDING SETTLEMENT MEMORANDUM OF UNDERSTANDING
REGARDING PROPOSED UP/NS TRANSACTION
July 22, 2026**

This Binding Settlement Memorandum of Understanding Regarding Proposed UP/NS Transaction (“**Settlement MOU**”) is entered into this ___ day of July 2026, and sets forth the binding material terms and conditions on which the parties, consisting of Union Pacific Corporation (“**UPC**”) and Union Pacific Railroad Company (“**UP**” and with UPC “**Union Pacific**”) and Grand Trunk Corporation, on behalf of itself and its current¹ and any future U.S. rail operating subsidiaries (“**CN**” or the “**Company**”) (each, a “**Party**,” and collectively, the “**Parties**”) have agreed with respect to a negotiated transaction involving the Company and Union Pacific related to, and contingent upon, the approval of the Surface Transportation Board (the “**STB**” or “**Board**”) of the proposed transaction between Union Pacific and Norfolk Southern Corporation (“**NSC**”) and Norfolk Southern Railway Company (“**NS**” and with NSC “**Norfolk Southern**”) pending in Docket No. FD 36873 (the “**Proposed UP/NS Transaction**”). Capitalized terms used herein but not otherwise defined shall have the meaning assigned to them in the Confidentiality Agreement dated April 2, 2026 (the “**Confidentiality Agreement**”).

The information contained in this Settlement MOU is binding, but it does not comprise an exhaustive list of all principal or legal terms relating to the parties’ agreement described herein. This Settlement MOU constitutes only an overview of principal and legal terms, with the understanding that the parties expect to negotiate in good faith to finalize a definitive written agreement (“**Definitive Agreement**”) relating to the parties’ agreement described herein, the execution of which shall be contingent upon completion of the Proposed UP/NS Transaction.

Definitive Agreement	1. The Parties expect to negotiate in good faith to finalize a Definitive Agreement, which shall include the terms and conditions memorialized in this Settlement MOU. 2. Union Pacific will request that the STB impose the Definitive Agreement as a condition of the Proposed UP/NS Transaction.
2-to-1 Locations	1. UP shall request that the STB designate CN as the remedy carrier at affected 2-to-1 locations, subject to the following: a. CN shall be recommended as the designated remedy carrier for the affected 2-to-1 customers at the respective locations listed in Appendix A. Where a customer in Appendix A identifies a preferred carrier who is not CN and Union Pacific accommodates that request, Union Pacific agrees to provide haulage access to CN to such customers. b. CN shall have a right of first refusal to be the remedy carrier for any additional 2-to-1 customers / locations subsequently identified by the Board or any other party as requiring a remedy during the regulatory process, where both Parties determine it is operationally and commercially feasible for CN to do so. Where an additional customer identifies a preferred carrier who is not CN and Union

¹ Bessemer and Lake Erie Railroad Company, Cedar River Railroad Company, Chicago, Central & Pacific Railroad Company, Grand Trunk Western Railroad Company, Illinois Central Railroad Company, Iowa Northern Railway Company, The Pittsburgh & Conneaut Dock Company, and Wisconsin Central Ltd.

	Pacific accommodates that request, Union Pacific agrees to provide haulage access to CN to such customers. c. Operational and commercial feasibility shall be determined based on the Parties’ mutual agreement, and whether CN, in its sole discretion, can generate enough revenue to justify the investment in providing service based on CN’s ordinary course operational and commercial standards. d. Union Pacific shall grant haulage and/or trackage rights to CN to receive access to 2-to-1 customers as identified herein. e. To the extent CN seeks access via trackage rights, CN shall file a responsive application(s) with the STB for any such contemplated trackage rights.
3-to-2 Locations	1. UP shall request that the STB designate CN as the remedy carrier at affected 3-to-2 locations, subject to the following: a. CN shall be recommended as the designated remedy carrier for the affected 3-to-2 customers at the respective locations. Where a customer identifies a preferred carrier who is not CN and Union Pacific accommodates that request, Union Pacific agrees to provide haulage access to CN to such customers. b. CN shall have a right of first refusal to be the remedy carrier for any additional 3-to-2 customers / locations subsequently identified by the Board or any other party as requiring a remedy during the regulatory process, where both Parties determine it is operationally and commercially feasible for CN to do so. Where an additional customer identifies a preferred carrier who is not CN and Union Pacific accommodates that request, Union Pacific agrees to provide haulage access to CN to such customers. c. Operational and commercial feasibility shall be determined based on the Parties’ mutual agreement, and whether CN, in its sole discretion, can generate enough revenue to justify the investment in providing service based on CN’s ordinary course operational and commercial standards. d. Union Pacific shall grant haulage and / or trackage rights to CN to receive access to 3-to-2 customers as identified herein. e. To the extent CN seeks access via trackage rights, CN shall file a responsive application(s) with the STB for any such contemplated trackage rights.
Kansas City Access	1. <i>The Lines.</i> Union Pacific shall grant CN (1) overhead trackage rights on Union Pacific’s line from Tuscola, Illinois to East St. Louis, Illinois (the “Tuscola Line”); and (2) overhead and local haulage rights and overhead trackage rights on Union Pacific’s line from East St. Louis/St. Louis, Missouri to Kansas City, Missouri (the “Kansas City Line”), reflected in the map in Appendix D. Union Pacific confirms that it has all rights to admit CN to the entire Kansas City Line, including any segment where Union Pacific is a co-owner or a tenant. In the event the STB does not allow CN to operate over on any segment where Union Pacific is a co-owner or a tenant,

	Union Pacific agrees that it will allow CN to operate on such portion of its line that it owns outright, even if it means running against the flow of traffic, until such time as Union Pacific can secure the rights required to allow CN to run over the “missing segment”. In such case, for so long as CN operates over the line that UP owns outright, CN shall participate in the capital costs to make the operating route bi-directional. 2. <i>Haulage Terms.</i> The standard terms of the haulage arrangement between East St. Louis/St. Louis and Kansas City shall be the subject of good-faith negotiation between the Parties, consistent with industry standards. Commercial terms for the haulage arrangement are set forth in Appendix B. The Parties, acting in good faith, shall agree in the Definitive Agreement either to per loaded car mile haulage rates for the Kansas City Line or to a methodology for establishing such rates. 3. <i>Trackage rights—Tuscola Line.</i> CN shall have trackage rights over the Tuscola Line. The standard terms of such trackage rights arrangement shall be the subject of good-faith negotiation between the Parties, consistent with industry standards. Commercial terms for the trackage rights arrangement are set forth in Appendix C. The Parties, acting in good faith, shall agree in the Definitive Agreement either to per car mile trackage rights rates for the Tuscola Line or to a methodology for establishing such rates. 4. <i>Conversion to Trackage Rights—Kansas City Line.</i> At CN’s sole discretion, CN shall have the one-time election to convert its haulage rights on the Kansas City Line to trackage rights upon adequate 6 months’ notice, but service cannot begin until such time as all of the infrastructure required is in place. The standard terms of such trackage rights arrangement shall be the subject of good-faith negotiation between the Parties, consistent with industry standards. Commercial terms for the trackage rights arrangement are set forth in Appendix C. The Parties, acting in good faith, shall agree in the Definitive Agreement either to per car mile trackage rights rates for the Kansas City Line or to a methodology for establishing such rates. 5. <i>Purchase Option.</i> CN shall have the right of first refusal to acquire the Kansas City Line for fair market value: (a) in the event the Board determines that trackage or haulage rights do not constitute a sufficiently effective remedy and orders divestiture of the Kansas City Line; or (b) Union Pacific decides to sell the line or receives an offer to purchase that line. 6. <i>Kansas City Yard—Neff Yard.</i> CN shall lease Neff Yard, in whole or in part, from Union Pacific with the option to purchase Neff Yard from Union Pacific for fair market value. The Parties shall meet before the execution of the Definitive Agreement to confirm plans for the yard, including the bowl and the shop.
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	The Parties shall negotiate in good faith before execution of the Definitive Agreement which portion of the yard CN will lease and have the option to purchase, it being understood that such portion shall be adequate to support CN’s operating plan, including reasonable growth. 7. <i>STB Approvals in the Proposed UP/NS Transaction.</i> a. CN shall seek approval from STB for any such contemplated trackage rights over the Tuscola Line and the Kansas City Line on the map in Appendix D, to implement Kansas City access. b. CN shall seek approval from STB to acquire the Kansas City Line between Rock Creek Junction in Kansas City and the MacArthur Bridge in St. Louis in the event the STB orders divestiture or UP decides to sell the line. c. CN shall seek STB approval to lease Neff Yard with the option to purchase. d. Union Pacific shall use best efforts to support each of the above requests for STB authority, to effectuate the Kansas City Access. 8. <i>Local Customer Access.</i> Union Pacific shall provide CN local customer access on the Kansas City Line via haulage under standard terms and commercial terms, including commercial conditions attached in Appendix B, as applicable. The Parties, acting in good faith, shall agree in the Definitive Agreement either to haulage rates for local customer access or to a methodology for establishing such rates. These local haulage rights and local haulage rates will remain in place after CN initiates overhead trackage rights operations on the Kansas City Line. 9. <i>Kansas City Terminal Railway Company.</i> CN shall acquire the Kansas City Terminal Railway Company (“KCT”) ownership interest currently held by Norfolk Southern (8.33%) for nominal consideration. Union Pacific shall be responsible for identifying and resolving any legal, regulatory, governance, or other impediments to the proposed divestiture of the applicable ownership interest. To the extent any such impediment cannot be resolved, the Parties commit to discuss alternative arrangements that achieve substantially similar competitive objectives.
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	10. <i>Elimination of Paper Barriers.</i> If Union Pacific (a) removes any paper barrier on the Kansas City Line, or (b) grants any exception to any paper barrier on the Kansas City Line, Union Pacific would similarly remove or grant an exception to CN for any paper barrier on the Kansas City Line. 11. <i>Terminal Railroad Association of St. Louis (TRRA).</i> UP has offered five options in UP/NS's response to Requests TRRA-1 and TRRA-2 in STB Decision No. 21 (Docket No. FD 36873) (the "Existing TRRA Options") that UP believes, if implemented, would avoid UP/NS acquiring or exercising control over the TRRA (the "TRRA Resolution") as a result of the transaction contemplated in Surface Transportation Board (STB) Proceeding Docket No. FD 36873 (the "Proposed Transaction"). Union Pacific shall be responsible for identifying and resolving, with CN's reasonable, good faith cooperation, the legal, regulatory, governance, or other impediments, if any, required to be addressed before any such option selected to satisfy the TRRA Resolution can be implemented, whether it involves 49 U.S.C. § 11321(a) or otherwise. In furtherance of the foregoing, CN will not oppose Union Pacific's efforts to resolve the TRRA control issue or take any action to prevent or delay the implementation of the TRRA Resolution. Subject to the foregoing, nothing in this provision requires CN to affirmatively represent, endorse, or support any particular legal conclusion regarding the transferability of TRRA shares under the TRRA governance documents or applicable state law CN will not oppose the legal conclusion that such shares are transferable under TRRA governance documents and applicable state law. Nothing herein shall be construed to compel CN to act in a manner that would not be consistent with or constitute a breach of CN or its representative on the Board of TRRA fiduciary duties. In the event that, for any reason, none of the Existing TRRA Options can be implemented, or the STB does not approve any of them, CN will not oppose any alternative option Union Pacific may propose to satisfy the TRRA Resolution ("Alternative TRRA Options"), provided that any such Alternative TRRA Option would not impose a material financial obligation on CN. For the avoidance of doubt, UP/NS would remain ultimately responsible for Norfolk Southern's existing obligations under the Merchants Bridge Rehabilitation Agreement, including without limitation Norfolk Southern's contingent guaranty obligations related thereto through the Bridge Indemnity (as such term is defined in UP/NS's response to Request TRRA-1 in STB Decision No. 21 (Docket No. FD 36873)).
Peoria & Pekin Union Railway (P&PU)	Union Pacific shall divest a portion of P&PU ownership interest (3.14%) to CN for nominal consideration, such that CN's ownership stake shall be 50% and Union Pacific's ownership stake shall be 50% if the STB approves the Proposed UP/NS

	Transaction. The Parties agree to work in good faith to make any necessary changes in the P&PU governance documents to effectuate the transfer.
Gateway Protections	Union Pacific commits to voluntary gateway provisions consistent with STB precedent: • “...keep open on commercially reasonable terms all existing gateways...” • “...provide a customer upon request a written justification for any rate increase above the rate of inflation for interline movements...” • “...report monthly during the oversight period with regard to traffic interchanged... at key gateways potentially affected...” • “...keep existing, major gateways open...will apply in perpetuity and to all traffic...” • “...offer connecting carriers commercially reasonable rate divisions and to negotiate in good faith...” In the event Union Pacific subsequently offers — or the Board requires — additional protections at gateways where CN operates (or will operate in the future), CN shall automatically receive the benefit of those more favorable terms at CN’s gateways with Union Pacific or Norfolk Southern.
Most Favored Nation	To the extent the Board requires remedies or conditions that are applicable to industry participants in general that are more favorable than those agreed to in the Settlement MOU and CN is excluded from those remedies because it entered into this agreement, CN shall automatically receive the benefit of those more favorable terms.
STB Regulatory Review and Participation	Notwithstanding anything herein to the contrary, CN agrees to limit its participation in the Proposed UP/NS Transaction for the next thirty (30) days to filings in response to a Board request for comments or to what is required to meet regulatory deadlines, if any. Following execution of the Definitive Agreement, CN reserves its right to fully participate in the STB proceedings related to the Proposed UP/NS Transaction to the

	extent required to give effect to the provisions of this Settlement MOU and any subsequent Definitive Agreement. The Parties recognize that CN will need to seek regulatory approval from the STB in the Proposed UP/NS Transaction for any remedies requiring regulatory approval, including the following in a responsive application(s): (1) haulage convertible to trackage rights to effectuate the Kansas City access; (2) haulage or in the alternative trackage rights to effectuate Des Moines access if awarded by the STB; (3) divestiture of the Kansas City Line if the STB orders it or Union Pacific decides to sell it; (4) lease or purchase of Neff Yard in whole or in part; and (5) anything else requiring STB approval to effectuate this binding Settlement MOU (and any subsequent Definitive Agreement), including the Tuscola Line trackage rights. Except as provided in this Settlement MOU, CN will not seek other conditions, support requests for conditions filed by others, or assist others in pursuing such requests. Union Pacific will not support requests for conditions filed by others or assist others in pursuing such requests that would be to the detriment of the remedies to be awarded CN in this Settlement MOU or any ensuing Definitive Agreement. Nothing herein shall prevent CN or UP from working with others in support of this Settlement MOU, the Definitive Agreement or the rights created thereunder. For the avoidance of doubt, however, CN may oppose, comment on, respond to, or otherwise participate with respect to any request, proposed condition, proposed remedy, order, filing, or other position advanced by any party that could adversely affect (1) CN (whether referencing the Settlement MOU or the ensuing Definitive Agreement or any other topic); (2) the commercial value of CN's rights under Settlement MOU and the ensuing Definitive Agreement; or (3) the implementation, or enforceability, duration, scope, operation, or regulatory approval of this Settlement MOU and the ensuing Definitive Agreement. Nothing in this Settlement MOU prevents CN from providing the STB any requested information, from responding to discovery requests as required by STB rules, or otherwise complying with STB orders.] CN and Union Pacific/Norfolk Southern agree to use best efforts to cooperate with each other to the extent necessary or appropriate to give effect to this MOU, including by providing testimony, verified statements, evidence, or other support necessary to demonstrate that this Settlement Term Sheet and the operations to be conducted thereunder will provide enhanced and effective competition at the locations covered by the Settlement Term Sheet. CN reserves its right to fully participate in the STB proceedings to the extent required to give effect to the provisions of this Settlement Term Sheet and any subsequent Definitive Agreement. Nothing in this Settlement Term Sheet prevents CN from providing the STB any requested information. Union Pacific agrees to use best efforts to support CN as the remedy carrier consistent with the terms negotiated in this Settlement Term Sheet and any
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	subsequent Definitive Agreement in the proceedings related to the Proposed UP/NS Transaction. To the extent the STB ultimately awards any of the conditions reflected in this Settlement Term Sheet (and any subsequent Definitive Agreement) to another carrier, UP agrees to negotiate in good faith with CN to determine and agree to equal value alternatives. Without limiting the generality of the foregoing, nothing in this Settlement Term Sheet limits either Party's ability to participate in the Board's review of the Proposed UP/NS Transaction to the extent needed to defend the terms of this Settlement Term Sheet and any subsequent Definitive Agreement, including if CN's and Union Pacific's interests diverge in such respects.
Expenses	Each Party will bear its own costs and expenses incurred in connection with the negotiation and documentation of the actions contemplated in the Settlement MOU.
Confidentiality	In accordance with the Confidentiality Agreement, the requirements of which are hereby incorporated by reference, the existence of this Settlement MOU and the fact that negotiations are being held and the terms, contents and conditions set forth in this Settlement MOU are private and confidential between the Parties and their respective affiliates and advisors, and no public or private statement, disclosure or press release concerning such private and confidential information can be made without the other Party's prior written approval.
Public Announcements	No Party to this Settlement MOU shall make any public announcements in respect of this Settlement MOU contemplated hereby or otherwise communicate with any news media without the prior written consent of the other Party on both the timing and contents of any such announcement.
Governing Law and Jurisdiction	This Settlement MOU shall be governed by, and construed in accordance with, the laws of the State of Delaware, with litigation in state or federal courts located in Delaware.
Disclaimer	The Parties agree to negotiate in good faith to reach a Definitive Agreement, which terms shall include those key terms for the Settlement MOU identified herein. The consummation of any settlement contemplated herein is subject in all respects to the negotiation, execution, and delivery of definitive documentation in form and substance satisfactory to each Party and its respective counsel. All discussions, correspondence, drafts, and materials exchanged in connection with this Settlement MOU are privileged and confidential, are made in the context of settlement negotiations, and are subject to the STB settlement privilege. No communication made in furtherance of the negotiations reflected herein, shall be admissible in any proceeding before the Surface Transportation Board or any other

	tribunal, nor shall any such communication constitute a waiver of any privilege or protection otherwise available to either Party. Union Pacific will request that the STB impose the Definitive Agreement as a condition of the Proposed UP/NS Transaction.
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Signature Page Follows

IN WITNESS WHEREOF, the Parties have each caused this Settlement MOU to be executed by their duly authorized representatives as of the date first written above.

CN

By:



Name: Tracy Robinson
Title: President & CEO

Union Pacific Corporation

By:

Name:
Title:

IN WITNESS WHEREOF, the Parties have each caused this Settlement MOU to be executed by their duly authorized representatives as of the date first written above.

CN

By: _____
Name:
Title:

Union Pacific Corporation

By:  _____
Name: V. James Vena
Title: CEO

Appendix A

Appendix A:

2-to-1 Customer List

Customer	Location
AgRail	Chicago, IL
Hillsboro Energy	Hillsboro, IL
Macoupin Energy	Carlinville, IL
Midwest Salt	Chicago, IL
US Glu-Lam	Chicago, IL

Appendix B

Commercial Terms for Haulage Arrangements for the Kansas City Line

- Kansas City Line: St. Louis to Kansas City
 - UP to accept CN haulage traffic via ALS or TRRA at CN's sole discretion.
 - Haulage route will include both UP subdivisions (Sedalia and River) as shown on the attached map as may be changed from time to time solely at UP's discretion; however, CN's continued access will also change with UP's operational changes.
 - Haulage traffic will remain in CN's account, and UP will not appear on the waybill.
 - Car hire remains with CN.
 - UP to perform haulage service for CN on the same frequency and with the same priority as is consistent with UP's handling of its own traffic, whether unit train, manifest, intermodal, or automotive.
 - A minimum of 3 trains per day (Monday through Sunday) of haulage service will be provided to CN.
 - CN can solely pre-fund improvements to increase capacity (number of trains, length, tonnage).
 - The parties agree capacity modeling is railroad-specific and shall be transparent with one another regarding available capacity. Before executing the Definitive Agreements, the parties will exchange capacity maps.
 - To implement the local haulage, Local customer access shall be limited to the specified UP route and shall not extend to customers located on the NS line. .
 - CN will compensate UP on a loaded per car mile basis for the haulage route (overhead and local to customers).
 - For interchange or overhead and local haulage traffic in Kansas City, at CN's election, interchange to pull and deliver may occur (1) via KCT with other carriers in Kansas City; or (2) directly with CN at Neff Yard. If needed, UP will provide other carriers with access to Neff Yard to interchange with CN.
 - Haulage will be provided for all commodities and train types, including unit train traffic. No origin/destination restrictions apply.
 - Overhead haulage will be terminated once CN initiates trackage rights operations, provided that Union Pacific shall continue to provide local haulage services for all customers on the Kansas City Line.
 - Term: 99 years

Appendix C

Commercial Terms for Trackage Rights for the Tuscola Line and the Kansas City Line

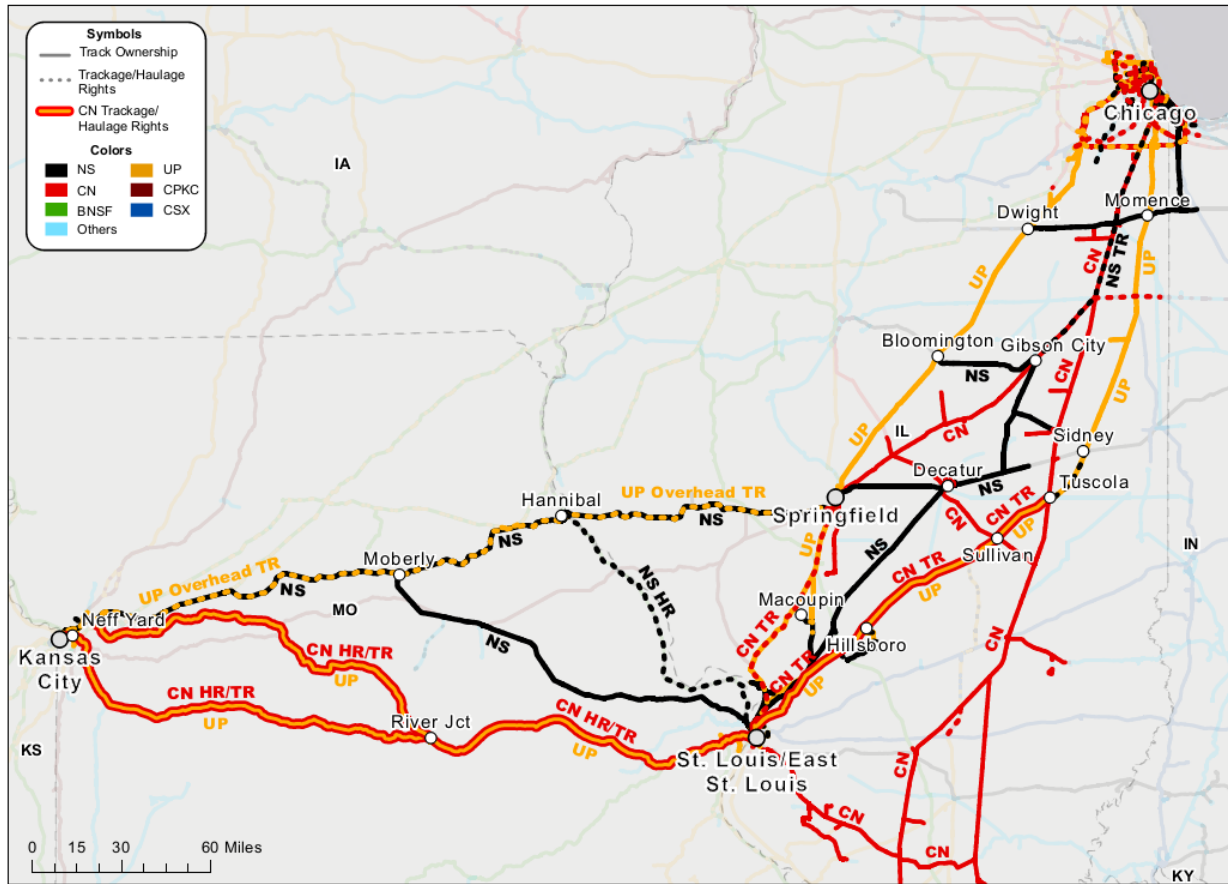
- Tuscola to East St. Louis
 - Union Pacific grants CN rights with on/off at (1) Tuscola, IL, (2) Sullivan, IL and (3) Lenox/Mitchell to ALS or continuing to the UP/KCS “paired line” for further connection to the TRRA.
 - Union Pacific grants CN rights over ALS between Lenox/Mitchell and Gateway Yard for connection to the TRRA.
 - Compensation for this section is also equal to compensation terms of Tuscola to East St. Louis agreement.
 - Amend existing UP Springfield, IL to East St. Louis trackage rights agreement to allow on/off at Lenox/Mitchell, Granite City, and Q Tower
 - Compensation for this section also to equal compensation terms of Tuscola to STL agreement.
 - Union Pacific to perform and CN to pre-fund construction of Tuscola and/or Sullivan connection(s) at CN’s sole discretion.
 - Train length and tonnage limits are equal to Union Pacific for all commodities and train types, including as those increase over time.
 - CN can pre-fund improvements to increase capacity (number of trains, length, tonnage).
 - Union Pacific should adhere to Class I industry standard maintenance practices in maintaining the trackage rights tracks.
 - Union Pacific will dispatch CN’s trains equitably and similarly to Union Pacific’s trains.
 - CN shall have a minimum of 3 trains per day (Monday through Sunday) for its trackage rights trains.
 - Union Pacific shall coordinate with CN on crew change locations, fueling, locomotive and car maintenance, data access to AEI sites along the route, and other means of reporting data (including dispatcher screen access).
 - Term: 99 years
 - Per car mile rate structure

- St. Louis, MO to Kansas City
 - UP grants CN trackage rights over Union Pacific between Gratiot (UP/TRRA connection) and Neff Yard using both the Sedalia Subdivision and the River Subdivision (directional). The trackage rights allow CN to get on and off to KCT at either end of Neff Yard.
 - For interchange for overhead and local haulage traffic in Kansas City, at CN’s election, interchange to pull and deliver may occur (1) via KCT with other carriers in Kansas City; or (2) directly with CN at Neff Yard. If needed, UP will provide other carriers with access to Neff Yard to interchange with CN.
 - Train length and tonnage limits are equal to Union Pacific for all commodities and train types, including as those limits increase over time.
 - CN can pre-fund improvements to increase capacity (number of trains, length, tonnage).

- Union Pacific will adhere to Class I industry standard maintenance practices in maintaining the trackage rights tracks.
- Union Pacific will dispatch CN's trains equitably and similarly to Union Pacific's trains.
- CN shall have a minimum of 3 trains per day (Monday through Sunday) for its trackage rights trains.
- If CN elects trackage rights, Union Pacific will coordinate with CN on crew change locations, fueling, locomotive and car maintenance, and customs at Eagle Pass, data access to AEI sites along the route, and other means of reporting data (including dispatcher screen access). All plans for operating trackage rights shall be in place before commencing operations.
- Term: 99 years, beginning on the effective date of the haulage agreement, regardless of whether CN later elects to convert the haulage rights to trackage rights.
- Per car mile rate structure

Appendix D

Map of the Kansas City Line and the Tuscola Line



Source: U.S. Bureau of Transportation Statistics, National Transportation Atlas Database.

**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**

**Supplemental Verified Statement
Of Elizabeth M. Bailey, Ph.D.**

July 17, 2026

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1 ASSIGNMENT

1. My name is Elizabeth M. Bailey. I submitted a Verified Statement in this matter on April 27, 2026.¹ I have been asked to respond to portions of the requests in the STB’s Decision 21 from May 26, 2026.² Specifically, I have been asked to address EC-5³ as well as a part of the requests made in A-1⁴ and DS-1⁵ and DS-2⁶. In addition, in light of request PB-1, I have been asked to comment on the implications of competitor responses for the benefits of the merger that I discussed in my April VS.⁷
2. My analyses addressing these points are described below.

¹ Verified Statement of Elizabeth M. Bailey, Ph.D., Finance Docket No. 36873, April 27, 2026, (“April VS”).

² STB Decision 21, Decision No. 21 in Docket No. FD 36873; “Notice of Acceptance of Revised Application and a Related Filing; Holding Proceedings in Abeyance; Requiring Supplemental Information; and Ruling on a Communications Motion Related to the Proceedings.”, Decided: May 26, 2026 (“STB Decision 21”).

³ EC-5: “For sole-served shippers served by either UP or NS on a single-line basis, (a) quantify, by commodity group and Business Economic Area, the amount of traffic that is potentially disciplined by geographic competition; and (b) explain the extent to which any proposed conditions (e.g., CGP, gateway protections, access remedies) provide a meaningful offset for any loss in any geographic competitive constraint for this traffic.” STB Decision 21 at p. 22.

⁴ A-1: “List each 2-to-1 and 3-to-2 shipper facility—including each shipper facility that would face a 2-to-1 or 3-to-2 reduction in direct access to Class I carriers—and, for each facility listed, address how pre-merger competition among carriers will be maintained.” STB Decision 21 at p. 23.

⁵ DS-1: “Because Applicants have taken the position that any additional Class I mergers would not likely result in harm if they are “essentially end-to-end,” ... Applicants shall specifically discuss whether any subsequent mergers—involving BNSF, CSXT, CN, or CPKC—would be “end-to-end,” and if not, provide their view on how to deal with potential problems resulting from further consolidation.” STB Decision 21 at p. 31.

⁶ DS-2: “Elaborate on the extent to which subsequent major mergers involving BNSF, CSXT, CN, or CPKC could cumulatively reduce geographic competition and impact market power, and discuss any implications for the Board’s use of its conditioning authority in this proceeding.” STB Decision 21 at p. 31.

⁷ PB-1: “Confirm whether Applicants’ diversion analyses and public benefit summaries reflect Applicants’ assumption that no competitive response, by any market participant, in any form, will occur during the first three years after consummation. If Applicants’ analyses and summaries incorporate a competitive response, detail how that response was incorporated into the model and affects the diversion and benefit estimates.” STB Decision 21 at p. 24.

2 COMBINED RAILROAD’S CUSTOMER FACILITIES THAT WOULD FACE A 2-TO-1 OR 3-TO-2 REDUCTION IN DIRECT ACCESS TO CLASS I RAILROADS

3. As explained above, I have been asked to respond to portions of the STB’s A-1 request. In particular, I was asked to provide a follow-up to the analysis presented in Exhibit 11 from my April VS.⁸ The requested follow-up considers access only to Class I railroads.
4. In my April VS, Exhibit 11 shows the customer facilities where the number of railroads with access to each facility falls from 2-to-1 or from 3-to-2 as a result of the merger. For that analysis, for each customer facility I counted access to Class I railroads, as well as access to Class II and Class III railroads. STB request A-1 asks for this information to be limited to access to Class I railroads.⁹
5. Exhibits 1 and 2 below show a modified version of Exhibit 11 in my April VS, where access count is limited to Class I railroads only. Exhibit 1 lists customer facilities that would face a reduction in access to Class I railroads from 2-to-1 as a result of the merger between UP and NS. Exhibit 2 shows the same for 3-to-2 reductions. While Exhibit 11 showed carload counts for year 2023, Exhibits 1 and 2 below also include counts for 2025 because data for 2025 were made available after my April VS.

⁸ April VS at Exhibit 11.

⁹ For the purpose of this analysis STB stated that “direct access to a Class I carrier does not include access via a Class II or III carrier that connects to a Class I carrier.” STB Decision 21 at footnote 27.

Exhibit 1: Combined Railroad’s 2-to-1 Customer Stations All Commodities by Count of Class I Railroads at the Identified Stations

Customer	Station(s)	UP/NS Carloads (2023)	Total Carloads (2023)	UP/NS Carloads (2025)
<i>Access Commitment Offered</i>				
AgRail LLC	Bloomington, IL			
Hillsboro Energy LLC	Hillsboro, IL			
Macoupin Energy LLC	Monterey Mine 1/ Carlinville, IL			
Midwest Salt LLC	Chicago, IL			
Milano Metals & Recycling/ Milano Railcar Services I.L.C./	Mt Vernon, IL			
Shapiro Bros of Illinois Inc.				
Titan Tire Corp.	Des Moines, IA			
US Glu-Lam Inc.	Chicago, IL			
<i>Serving Carrier not UP or NS</i>				
Stewart Grain Company Inc.	Marshfield/ Stewart, IL			

Notes: Customer facilities were identified using Customer Identification File (CIF) Numbers.

Sources: UPRR_SCRS_Full_Desc_20250815.txt; 1-A-Raw_UPRR_AAR_Station_Master.txt; Combined Waybill Data; Class I Railroad Traffic Tapes, 2019-2024; UP Railroad Traffic Tapes, 2025; NS Railroad Traffic Tapes, 2025.

6. Of the eight customer facilities listed in Exhibit 1, five were shown as 2-to-1 in Exhibit 11 of my April VS.¹⁰ The other three facilities have access to additional Class II and Class III railroads and thus were not previously included as 2-to-1, but will have access to only one Class I railroad after the merger.¹¹

¹⁰ These are AgRail LLC, Hillsboro Energy LLC, Macoupin Energy LLC, Midwest Salt LLC, and US Glu-Lam Inc. April VS at Exhibit 11.

¹¹ As shown in my April VS production, five customer facilities were identified in the Novak VS as errors in the SCRS data, and have zero carload volumes in both 2023 and 2025 data: Ford Motor Co: Ford Voltz Auto Ramp, Lumberman’s Wholesale Co., Ruan Logistics Corp, Scrap Processors Inc., and Triple F Inc. *See* Verified Statement of Katherine N. Novak, “Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company,” Docket No. FD 36873 (“Novak VS”).

7. I understand from the Applicants’ Second Submission in Response to STB Decision No. 21 that Applicants’ proposed commitments would preserve rail competition for seven of these eight 2-to-1 customer facilities.¹²
8. With respect to one other, Stewart Grain Company, the 2-to-1 nature of the overlap is an artifact of the methodology and the proposed transaction does not reduce competitive Class I alternatives to this shipper from 2-to-1. UP and NS indirectly access Stewart Grain Company’s facility in Stewart, Indiana which is served directly by the Kankakee, Beaverville & Southern Railroad (KBSR), a Class III railroad.¹³ No Class I railroad has direct access to this facility, with UP and NS currently accessing this facility via reciprocal switching.¹⁴ KBSR also interchanges with CN and CSXT, and Stewart Grain Company utilized both KBSR-CN and KBSR-CSXT routes in 2019-2024 period. The merger would not change the number of Class I railroads that directly serve the Stewart, Indiana facility and access through KBSR would remain after the merger. Following the merger, Stewart Grain Company would continue to have access via KBSR to at least three Class I railroads: CN, CSXT, and the combined UP/NS.
9. In addition, Stewart Grain Company historically ships relatively little volume on UP or NS: in 2023, only {{ }} and in 2025{{ }} were on UP or NS. Furthermore, Stewart Grain Company uses UP and NS to serve distinct, non-overlapping geographic markets. Specifically, throughout the period from

¹² Applicants’ Second Submission in Response to STB Decision No. 21 in Docket No. FD 36873 (“Applicants’ Second Submission in Response to STB Decision 21”) at Section III.B.

¹³ See UPRR_SCRS_Full_Desc_20250815.txt.

¹⁴ *Id.*

2019 to 2025, {{

}}.¹⁵

10. Exhibit 2 lists customer facilities that would face a reduction from 3-to-2.

¹⁵ Stewart Grain Company shipped {{
}}. In the same period, they shipped {{
}} See Exhibit 1 & 2 Workpapers.

Exhibit 2: Combined Railroad's 3-to-2 Customer Stations All Commodities by Count of Class I Railroads at the Identified Stations

Customer	Station(s)	UP/NS Carloads (2023)	Total Carloads (2023)	UP/NS Carloads (2025)
<i>Access Commitment Offered</i>				
Alter Metal Recycling	Des Moines, IA			
Archer Daniels Midland Co.	Des Moines, IA			
Bituminous Materials & Supply LP	Des Moines, IA			
BlueLink Corp.	Des Moines, IA			
Bridgestone Americas Tire Operations LLC	Des Moines, IA			
Bunge Milling Inc.	Danville, IL			
Cargill Inc.	Des Moines, IA			
Des Moines Industrial LLC	Des Moines, IA			
Edmund A Allen Lumber	Momence, IL			
Federal Energy Co.	Des Moines, IA			
General Mills Inc.	Avon, IA			
Heartland Co-op	Des Moines/Avon, IA			
Magellan Midstream Partners LP	Des Moines, IA			
Mighty River Recycling LLC/				
Azcon Inc. (Former Owner of MRR LLC's Facility)	Federal, IL			
Rayner Rinn Scott	Des Moines, IA			
REG Danville LLC/	Danville, IL			
Renewable Energy Group Inc.				
The Quaker Oats Co.	Danville, IL			
USS Granite City Works	Madison/Granite City, IL			
<i>Line Abandonment</i>				
Wheeler Consolidated Inc.*	Des Moines, IA			
<i>Serving Carrier not UP or NS</i>				
Intrinsic Ag LLC	Altoona, IA			
Lebanon Chemical Corp.	Danville, IL			
Lineage Logistics LLC/	Altoona, IA			
Iowa Cold Storage				
Merchants White Line Warehousing Inc.	Altoona, IA			
Viscofan USA Inc.	Danville, IL			
<i>Serving Carrier not UP or NS & Line Abandonment</i>				
Beisser's Inc.*	Grimes, IA			
CB&I Storage Tank Solutions LLC*	Des Moines, IA			
Frontier Forest Products Inc.*	Des Moines, IA			

Notes: Customer facilities were identified using Customer Identification File (CIF) Numbers. Facilities with * are under abandonment and discontinuation.

Sources: UPRR_SCRS_Full_Desc_20250815.txt; 1-A-Raw_UPRR_AAR_Station_Master.txt; Combined Waybill Data; Class I Railroad Traffic Tapes, 2019-2024; UP Railroad Traffic Tapes, 2025; NS Railroad Traffic Tapes, 2025

11. Of the twenty-seven customer facilities listed in Exhibit 2, four were included in Exhibit 11 of my April VS as 3-to-2 because the remaining twenty-three customers have access to

additional Class II or Class III railroads.¹⁶ I understand that Applicants’ proposed commitments would preserve rail competition for eighteen of twenty-seven 3-to-2 customer facilities.¹⁷

12. Of the nine remaining facilities, one, Wheeler Consolidated Inc., is directly served by an NS station under a line abandonment proceeding and has zero carloads since 2019 in waybill data.¹⁸ With respect to the other eight facilities, the 3-to-2 nature of the overlaps is an artifact of the methodology: these eight facilities are directly served by carriers that are not UP or NS.¹⁹ UP and NS can only access customers at these facilities via a switching agreement with another railroad. Furthermore, each of these eight customers ships little or no traffic on either UP or NS: in 2023, only {{ }} and in 2025 only {{ }}

}} Importantly, a review of traffic moving from 2019 through 2025 shows that,

¹⁶ In addition to these twenty-seven customer facilities, five customer facilities that may appear as a 3-to-2 facility are identified in Novak VS or in Applicants’ Second Submission in Response to STB Decision 21 at Section III.B as errors in the SCRS data: Cotton Press Warehouse LLC, Darling Ingredients INC, Ford Motor Co., Helena Agri-Enterprises LLC, and Holcim.

¹⁷ Applicants’ Second Submission in Response to STB Decision 21 at Section III.B.

¹⁸ *Id.* See Exhibit 2 Workpapers.

¹⁹ Intrinsic AG LLC, Lineage Logistics LLC/Iowa Cold Storage Inc., Merchants White Line Warehousing Inc., Beisser’s Inc., CB&I Storage Tank Solutions LLC, and Frontier Forest Products Inc. are all directly served by Iowa Interstate Railroad (IAIS), a Class II railroad, with UP and NS relying on switching service by IAIS for access to these customers. Lebanon Chemical Corp. and Viscofan USA Inc. are directly served by CSXT, with UP and NS relying on switching service by CSXT. See Exhibit 2 Workpapers.

with the exception of a carload or two, which may be billing errors, each of these eight facilities use UP and NS to serve distinct, non-overlapping geographic markets.^{20,21}

13. In addition, three of these eight customer facilities are located on the lines that are under abandonment and discontinuation proceedings.²²
14. Finally, the combined carload count for year 2023 for 2-to-1 customers in Exhibit 1 herein {{ }} is similar to that in my April VS, {{ }} in Exhibit 11. For 3-to-2 customers, the number of carloads is {{ }} in Exhibit 11 of my April VS and {{ }} in Exhibit 2 herein. As I explained above, I understand that UP and NS have offered

²⁰ When evaluating carloads for distinct, non-overlapping geographies, I consider any carload where UP or NS participates in the routing, regardless of whether these carloads are originated or terminated by either UP or NS. This differs from the method I use in Exhibits 1 and 2, where I consider only carloads originated or terminated by either UP or NS. Note that in my April VS, apart from identifying 2-to-1 and 3-to-2 facilities, I excluded movements of less than 10 carloads for precisely this reason. April VS at ¶¶ 104-105.

²¹ Between 2019 and 2025, Intrinsic AG LLC is observed to ship

Lebanon Chemical Corp is observed to . Lineage Logistics
LLC/Iowa Cold Storage Inc. is
Merchants White Line Warehousing Inc. is observed to
Viscofan USA Inc. is observed to
iscofan USA Inc.
Beisser's Inc.
CB&I Storage Tank Solutions LLC
Frontier
Forest Products Inc.

See Exhibit 2
Workpapers.

²² These are Beisser's Inc., CB&I Storage Tank Solutions LLC, and Frontier Forest Products Inc. See Applicants' Second Submission in Response to STB Decision 21 at Section III.B.

commitments that would preserve rail competition for the majority of these 2-to-1 and 3-to-2 customer facilities, with the remainder being those that have a serving carrier that is not UP or NS.²³ And as noted in my April VS, the number of carloads affected across these customer facilities is small, which is still the case in Exhibits 1 and 2 above, and therefore my opinion regarding 2-to-1 and 3-to-2 customer facilities is unchanged.²⁴

3 PROSPECTIVE SUBSEQUENT MERGERS AND CUSTOMER FACILITIES WITH 2-TO-1 OR 3-TO-2 ACCESS TO CLASS I RAILROADS

15. As explained above, I have been asked to respond to portions of the STB's DS-1 and DS-2 request. In particular, I was asked to analyze how many customer facilities would face a 2-to-1 or 3-to-2 reduction in direct access to Class I railroads in a hypothetical merger of Class I railroads, subsequent to the proposed UP and NS merger (assuming the proposed current merger is completed). I was also asked whether a subsequent hypothetical merger of Class I railroads would cumulatively reduce geographic competition.
16. In DS-1, the STB requested information on prospective subsequent mergers, assuming the current merger is completed. In Exhibit 3, I provide a condensed summary of customer facilities that would experience a 2-to-1 or 3-to-2 reduction in direct access to Class I railroads if pairs of Class I railroads undertake a merger subsequent to the proposed UP and NS merger. Each prospective merger scenario assumes the current merger between UP and NS is completed.

²³ Applicants' Second Submission in Response to STB Decision 21 at Section III.B.

²⁴ April VS at ¶ 114.

Exhibit 3: Prospective Combined Railroad’s 2-to-1 and 3-to-2 Customer Stations by Count of Class I Railroads

Scenario	Total Customers	Two-to-One Customers	Two-to-One (% Total)	Three-to-Two Customers	Three-to-Two (% Total)	Total Reductions
BNSF/CSXT	19,157	18	0.09%	39	0.20%	57
CSXT/CPKC	16,226	30	0.18%	111	0.68%	141
CSXT/CN	15,363	81	0.53%	227	1.48%	308
BNSF/CN	13,409	94	0.70%	236	1.76%	330
BNSF/CPKC	13,689	133	0.97%	613	4.48%	746

Notes: Counts are calculated by unique CIF numbers, no consolidation of customers who may be listed under more than one CIF have been attempted.

Sources: UPRR_SCRS_Full_Desc_20250815.txt; 1-A-Raw_UPRR_AAR_Station_Master.txt

17. I was also asked whether a further hypothetical merger of Class I railroads would cumulatively reduce geographic competition. As discussed in my April VS, my analysis considered whether the UP-NS merger would reduce geographic competition, flagged certain traffic for additional review, but unflagged the traffic after further analysis. Whether a future hypothetical merger of Class I railroads would reduce geographic competition depends on the market conditions at the time of such a merger, which would reflect changes in the market and in demand and supply conditions, as well changes from the UP-NS merger and the competitive response from other participants to the UP-NS merger.
18. In terms of the standard tools for analyzing geographic competition that I have used for my analysis, the 50/10 screen and Critical Loss Analysis (“CLA”) focus on the geographic patterns of supply and demand as they exist today. The results of the same analysis for a future hypothetical merger therefore cannot be predicted now as the relevant inputs will change to reflect market conditions at that time.

4 GEOGRAPHIC COMPETITION IMPACT ON SOLE-SERVED SINGLE-LINE SHIPPERS

19. As explained above, I have been asked to respond to the STB’s EC-5 request. In particular, I was asked to provide specific information about certain traffic where the merger may lead to a loss in constraints from geographic competition, and the scope for the conditions proposed by the Applicants to offset any harm to this traffic. I first quantify the amount of traffic described in the STB request that could be constrained by geographic competition between UP and NS. Second, I discuss the potential impact of the conditions proposed by the Applicants on this traffic.

4.1 Quantifying single-line traffic from sole-served shippers where the merger might lead to a loss in geographic competitive constraints

20. I first quantify the amount of single-line traffic from sole-served shippers served by UP or NS that is potentially disciplined by geographic competition between UP and NS.
21. I start from the analysis of competition between corridors from my April VS,²⁵ which applied the two-step approach from prior mergers to identify areas and commodities where the merger might lead to a loss in geographic competitive constraints. Step 1 used the 50/10 screen to flag areas and commodities as warranting further review. Step 2 involved further analysis of the flagged areas based on CLA. I found that all carloads that were initially flagged for further review were unflagged by the CLA tests.²⁶

²⁵ April VS at Section 4.4.

²⁶ April VS at ¶¶ 182, 185.

22. To address the STB’s request, the analysis here uses the same origin-commodity and destination-commodity pairs from Step 1 to identify where further analysis of the effects of the merger on geographic competitive constraints is warranted. However, instead of using the further analysis of Step 2 from my April VS, the response here provides the calculations outlined in EC-5 by the STB. The calculations requested by the STB in EC-5 do not contradict the results of the analysis of between-corridor competition from my April VS. They are instead a supplementary form of further analysis that specifically show the proposed merger conditions that might help address potential geographic competition concerns relating to sole-served single-line traffic.
23. The further analyses in this report account for the fact that shippers might be able to respond to changes in their transportation options by finding new and different suppliers for their inputs or new and different buyers for their outputs—but the analyses do not take into account all of the ways that shippers can mitigate any harmful effects in the longer run, such as by expanding some facilities or building new ones.
24. I use the results from Exhibit 14 in my April VS, which flags origin-commodity pairs that warrant further review. For each flagged origin-commodity pair in Exhibit 14, I first identify all shipments of shippers sole-served by UP or NS using flags provided by Dr. Mark Israel.²⁷

²⁷ See “Sole-Served and CGP Eligible UP-NS Waybill Record IDs.csv.”

I then identify which of those shipments are served on a single-line basis by UP or NS.²⁸ The total 2023 carloads for these shipments are reported in Exhibit 4, Column [2].

25. I apply the same methodology for receivers using the destination-commodity pairs flagged in Exhibit 15 of my April VS. The results are shown in Exhibit 5, Column [2].

4.2 Role of the proposed conditions

26. The second part of the STB’s request is to “explain the extent to which any proposed conditions (e.g., CGP, gateway protections, access remedies) provide a meaningful offset for any loss in any geographic competitive constraint” for the traffic identified above. I approach this in two ways.

- a. The first approach focuses on whether the conditions might improve the ability of sole-served shippers served by either UP or NS on a single-line basis to divert traffic to alternative origins or destinations.
- b. The second approach considers the extent to which the conditions might cover traffic across a BEA.

27. I describe my analyses below.

4.2.1 Options available to sole-served shippers that are served by UP or NS on a single-line basis

28. All three proposed conditions – the Open Gateway Commitment, Committed Gateway Pricing, and the Access Commitments – mean that in principle a sole-served shipper might

²⁸ UP or NS single-line shipments are identified as those moving either entirely on UP or NS, or on routes that combine UP or NS with a Class II or Class III railroad interchanging solely with UP or NS at either the origin or the destination. STB Decision 21 at footnote 24. Class II and Class III railroads interchanging solely with UP or NS are identified using the flags provided by Dr. Mark Israel.

be able to divert traffic from destinations served on a single-line basis to destinations served by interline routes where these conditions apply.²⁹ This could potentially strengthen the geographic competitive constraint on the single-line traffic for such shippers. The following paragraphs explain how I have estimated, for each condition, the single-line traffic associated with shippers that are sole-served by UP or NS and can ship to at least one alternative destination using interline service that is eligible for that condition.³⁰ This is the traffic that is addressed by that condition.

4.2.1.1 Open Gateway Commitment

29. The Open Gateway Commitment (“OGC”) applies to movements where (a) UP and NS can interline on a route, (b) UP or NS can interline with another railroad on a route, and (c) the combined railroad would be able to serve more of the line-haul distance than either UP or NS alone can serve.³¹

²⁹ This example considers origin-commodity pairs, a similar logic applies for destination-commodity pairs.

³⁰ For ease of exposition, the discussion below focuses on origin-commodity pairs and the availability of alternative destinations. The same methodology applies symmetrically to destination-commodity pairs and the availability of alternative origins. The STB’s EC-5 request asks about “shippers,” which I understand to mean the originating shipper or, where appropriate, the receiver whose transportation options are being evaluated. STB Decision 21 at p. 22.

³¹ OGC eligibility between an origin station and a destination SPLC or an origin SPLC and a destination station can be actual or hypothetical, and must satisfy the following conditions: (1) there exists an interline route between the origin and destination where UP or NS interline with another railroad, (2) UP and NS can interline with each other, and (3) the combined UP/NS will create a longer haul than either can offer individually. *See* Joint Verified Statement of Kenny Rocker and Claude E. “Ed” Elkins, “Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company,” Docket No. FD 36873 at ¶ 164 “[w]e commit to keep open on commercially reasonable terms all existing gateways for eligible traffic (that is, traffic that UP or NS interchanged with another carrier for which the transaction will create a longer UP/NS haul than was available on the UP or NS system pre-transaction).” Origins and destinations are defined as stations for sole-served shippers or receivers and SPLC for the destinations (origins); so each is a station-SPLC pair.

30. For each origin-commodity pair in Exhibit 14 of my April VS, I first identify sole-served shippers with movements eligible for the Open Gateway Commitment. A shipper that is sole-served by UP or NS has a movement that is eligible for the OGC if that shipper ships any traffic to a destination that is eligible for the OGC from that shipper's origin station, as long as that destination also receives the commodity from some origin.³²
31. For example, a shipper of flour from a sole-served UP station in Wichita that currently ships only on a single-line basis on UP to Salt Lake City may still be able to take advantage of the Open Gateway Commitment if this – or another – shipper from the same sole-served UP station in Wichita ships plastics to any destination (e.g. New York) via interline service that is OGC-eligible and that particular destination (New York) also receives flour from some origin (e.g. Minneapolis). This means that as long as there is a destination (New York) that demands flour, and shipments from the Wichita station to that destination are OGC-eligible (as demonstrated by the plastics shipments), this shipper could redirect its single-line flour shipments to this alternative destination and take advantage of the OGC. That is, there exists demand at another destination for the sole-served shipper's commodity, and shipments from the sole-served shipper to that destination are OGC-eligible.
32. In Exhibit 4, I quantify the amount of single-line traffic in Column [2] associated with such shippers and report the amount of that traffic addressed by the OGC in Column [3]. The traffic reported in Exhibit 4, Column [3] can benefit from the Open Gateway Commitment, as the shipper could redirect it to destinations via interline service that are OGC-eligible.

³² This means the destination has demand for the commodity that the sole-served by UP or NS shipper can send.

33. I conduct analogous calculations for the destination-commodity pairs flagged in Exhibit 15 of my April VS and report the results in Exhibit 5 herein.³³

4.2.1.2 Committed Gateway Pricing

34. Movements eligible for Committed Gateway Pricing (“CGP”) are analyzed in Dr. Mark Israel’s Supplemental Verified Statement.³⁴ For each origin-commodity pair in Exhibit 14 of my April VS, I use information provided by Dr. Israel to identify shipments that would be eligible for CGP. I understand that Dr. Israel used the expanded version of CGP that Applicants describe in their Second Submission in Response to Decision No. 21 to identify such shipments.³⁵ I then identify sole-served shippers with movements eligible for CGP and quantify the amount of single-line traffic associated with those shippers in Exhibit 4, Column [4]. A shipper that is sole-served by UP or NS has a movement that is eligible for CGP if this commodity is eligible for CGP³⁶, and there exist movements from the same sole-served UP or NS origin station for any commodity that Dr. Israel flagged as eligible for CGP, to a destination that has received that specific commodity from any origin.
35. For example, a shipper of flour from a sole-served UP station in Wichita that currently ships only on a single-line basis on UP to Salt Lake City may be able to take advantage of CGP if this – or another – shipper from the same sole-served UP station ships plastics to any

³³ In Exhibit 5, OGC eligibility for origin SPLC – destination station pairs is defined in the same way as for origin station – destination SPLC pairs in Exhibit 4.

³⁴ Supplemental Verified Statement of Dr. Mark Israel Section 3.

³⁵ Supplemental Verified Statement of Dr. Mark Israel at ¶¶ 7, 10.

³⁶ This means that Dr. Israel has flagged at least one movement of the commodity in question as CGP-eligible.

destination (e.g., New York) and the movement is flagged as eligible for CGP by Dr. Israel and that particular destination (New York) also receives flour from some origin (e.g., Minneapolis). That is, there exists demand at another destination for the sole-served shipper's commodity, and the sole-served shipper has a CGP-eligible routing option of getting to that destination.

36. The amount of the single-line traffic of such shippers is reported in Exhibit 4, Column [4]. This traffic can benefit from CGP, as the shippers can direct it to routing options eligible for CGP.
37. I conduct analogous calculations for the destination-commodity pairs flagged in Exhibit 15 of my April VS and report the results in Exhibit 5 herein.

4.2.1.3 Access Commitments

38. For each origin-commodity pair in Exhibit 14 of my April VS, I identify any shipments associated with sole-served shippers to receivers that will be offered an Access Commitment due to reductions of access of 3-to-2 or 2-to-1. I measure the single-line traffic from sole-served shippers that is addressed by Access Commitments and report the amount of such traffic in Exhibit 4, Column [5]. This traffic is addressed by the Access Commitments, as the shipper can direct it to routes terminated by receivers offered with Access Commitments. I conduct analogous calculations for the destination-commodity pairs flagged in Exhibit 15 of my April VS and report the results in Exhibit 5 herein.

4.2.1.4 Results

39. The results of my calculations for the STB request EC-5 are in Exhibits 4 and 5 below.

Exhibit 4: Destination Competition: Sole-Served Shippers with Single-Line UP or NS Shipments

				Total Carloads in 2023	Single-line Carloads of Sole-Served Shippers in [1]	Carloads in [2] Addressed by Open Gateway Commitment	Carloads in [2] Addressed by Committed Gateway Pricing	Carloads in [2] Addressed by Access Commitments
Commodity	Origin							
STCC Category	STCC	BEA Name	BEA	[1]	[2]	[3]	[4]	[5]
Nonmetal Minerals, Proc'd	3295	St. Louis, MO-IL	96					
Flour or Other Grain Mill Prod.	2041	Wichita, KS-OK	122					
Plastic Mater or Synth Fibres	2821	St. Louis, MO-IL	96					
Canned or Pres Food, Mixed	2039	San Francisco-Oak.-San Jose, CA	163					
Plastic Mater or Synth Fibres	2821	Birmingham, AL	78					
Primary Iron or Steel Products	3312	Roanoke, VA-NC-WV	17					
Aluminum or Alloy Basic Shapes	3352	Quebec, Canada	177					
Primary Copper Smelter Prod.	3331	Salt Lake City-Ogden, UT-ID	152					
Flour or Other Grain Mill Prod.	2041	Tulsa, OK-KS	124					
Primary Lead Smelter Prod.	3332	Los Angeles-Riverside-OC, CA-AZ	160					
Inorganic Pigments	2816	Lake Charles, LA	86					
Total:								

Note: All carloads reported in the table are based on observed traffic in 2023.

Sources: Combined Waybill Data; UPRR_SCRS_Full_Desc_20250815.txt; 1-A-Raw_UPRR_AAR_Station_Master.txt; 191-A-FSAC_SPLC_FIPS_BEA.xlsx; 2023 Surface Transportation Board Carload Waybill Sample Reference Guide.pdf; transearch_commodity_lookup.csv; Sole-Served and CGP Eligible UP-NS Waybill Record IDs.csv

Exhibit 5: Source Competition: Sole-Served Shippers with Single-Line UP or NS Shipments

				Total Carloads in 2023	Single-line Carloads of Sole-Served Receivers in [1]	Carloads in [2] Addressed by Open Gateway Commitment	Carloads in [2] Addressed by Committed Gateway Pricing	Carloads in [2] Addressed by Access Commitments
Commodity	Destination							
STCC Category	STCC	BEA Name	BEA	[1]	[2]	[3]	[4]	[5]
Plastic Mater or Synth Fibres	2821	Cleveland-Akron, OH-PA	55					
Plastic Mater or Synth Fibres	2821	Indianapolis, IN-IL	67					
Potassium or Sodium Comp.	2812	Toledo, OH	56					
Plastic Mater or Synth Fibres	2821	Louisville, KY-IN	70					
Potassium or Sodium Comp.	2812	Kansas City, MO-KS	99					
Potassium or Sodium Comp.	2812	Indianapolis, IN-IL	67					
Plastic Mater or Synth Fibres	2821	Columbus, OH	51					
Wet Corn Milling or Milo	2046	Chicago-Gary-Kenosha, IL-IN-WI	64					
Flour or Other Grain Mill Prod.	2041	St. Louis, MO-IL	96					
Oil Kernels, Nuts or Seeds	0114	Twin Falls, ID	149					
Potassium or Sodium Comp.	2812	Atlanta, GA-AL-NC	40					
Flour or Other Grain Mill Prod.	2041	Harrisburg-Lebanon-Carlisle, PA	11					
Plastic Mater or Synth Fibres	2821	Jackson, MS-AL-LA	77					
Plastic Mater or Synth Fibres	2821	Lexington, KY-TN-VA-WV	47					
Potassium or Sodium Comp.	2812	Charlotte-Gastonia-Rock Hill, NC-SC	23					
Potassium or Sodium Comp.	2812	Augusta-Aiken, GA-SC	27					
Plastic Mater or Synth Fibres	2821	Albany, GA	37					
Potassium or Sodium Comp.	2812	Norfolk-Virginia Beach, VA-NC	20					
Gum or Wood Chemicals	2861	New Orleans, LA-MS	83					
Cyclic Intermediates or Dyes	2815	Memphis, TN-AR-MS-KY	73					
Prepared or Canned Feed	2042	Queretaro, Mexico	205					
Potassium or Sodium Comp.	2812	Lexington, KY-TN-VA-WV	47					
Total:								

Note: All carloads reported in the table are based on observed traffic in 2023.

Sources: Combined Waybill Data; UPRR_SCRS_Full_Desc_20250815.txt; 1-A-Raw_UPRR_AAR_Station_Master.txt; 191-A-FSAC_SPLC_FIPS_BEA.xlsx; 2023 Surface Transportation Board Carload Waybill Sample Reference Guide.pdf; transearch_commodity_lookup.csv; Sole-Served and CGP Eligible UP-NS Waybill Record IDs.csv

40. The results show the following. First, the STB's request in EC-5 covers a small part of the traffic that is flagged by the 50/10 screen. Exhibit 4, Column [2] shows that, of {{ }} carloads at origin-commodity pairs that are flagged by the 50/10 screen, {{ }} of them are from sole-served shippers served by UP or NS on a single-line basis. The corresponding figures from Exhibit 5 for destination-commodity pairs and sole-served receivers are {{ }} originally flagged and {{ }} carloads from sole-served single-line shippers.

41. Second, the two conditions, the OGC and CGP, address most of the traffic identified in the STB's request. Exhibit 4, Columns [3] and [4] show that of the {{ }} carloads from sole-served shippers that move on a UP or NS single-line route at flagged origin-commodity pairs, {{ }} and {{ }} carloads are addressed by the OGC and CGP, respectively. The corresponding figures for destination-commodity pairs in Exhibit 5 are {{ }} carloads to sole-served receivers that move on a UP or NS single-line route, of which {{ }} and {{ }} carloads are addressed by the OGC and CGP, respectively.
42. The third condition is the Access Commitments. Exhibits 4 and 5, Column [5] suggest that these have little effect on the geographic options available to sole-served shippers or receivers with single-line UP or NS shipments. This reflects two factors. The first is that these results may underestimate the impact of the Access Commitments. The remedies have not been finalized and I do not know which railroads specifically would be provided with access under the Access Commitments. This means that I cannot analyze which individual sole-served shippers these railroads might be able to serve. Second, as discussed in my April VS, there is little horizontal overlap between UP and NS networks,³⁷ which means there is no need for significant Access Commitments (see also Section 2 above), which explains why this commitment applies to very little of the traffic from sole-served shippers on a single-line basis by UP or NS.³⁸

³⁷ See April VS at Section 2.3.

³⁸ However, commitments proposed to these shippers are not accounted for in the current analyses because they have not been finalized. While it is assumed that the shipper will have access to another railroad, traffic on a specific railroad that may receive such access is not modeled here.

4.2.2 Options available to shippers across a BEA

43. A condition that constrains transport costs for one shipper could be a constraint on railroads serving other shippers in the same BEA if those shippers compete with that shipper. This could be an additional way the conditions might affect traffic served by sole-served shippers on a single-line basis from UP or NS.
44. To provide some information about the potential scope of this effect, I examine each flagged origin-commodity pair in Exhibit 14 of my April VS and quantify the traffic that would be eligible for each of the three conditions, for all traffic for each commodity originating in this BEA to all destinations.
45. This analysis is a supplement to the other types of further analysis of the origin-commodity pairs that are initially flagged by the 50/10 screen. It does not contradict the results of my April VS, which found that further analysis based on CLA unflagged all the areas. Nor does it contradict the further analysis in Section 4.2.1 above, which found that most of the traffic from shippers sole-served by UP or NS on a single-line basis was from shippers with geographic options that would be eligible for the OGC or CGP.
46. The results are shown in Exhibit 6 below, along with traffic from UP or NS sole-served shippers on a single-line basis. I repeat this analysis for the destination-commodity pairs in Exhibit 15 of my April VS and show the results in Exhibit 7 below.

Exhibit 6: Destination Competition: Across Shippers within BEA

				Total Carloads in 2023	Single-line Carloads of Sole-served Shippers in [1]	Carloads in [1] Eligible for Open Gateway Commitment	Carloads in [1] Eligible for Committed Gateway Pricing	Carloads in [1] Eligible for Access Commitments
Commodity	Origin							
STCC Category	STCC	BEA Name	BEA	[1]	[2]	[3]	[4]	[5]
Nonmetal Minerals, Proc'd	3295	St. Louis, MO-IL	96					
Flour or Other Grain Mill Prod.	2041	Wichita, KS-OK	122					
Plastic Mater or Synth Fibres	2821	St. Louis, MO-IL	96					
Canned or Pres Food, Mixed	2039	San Francisco-Oak.-San Jose, CA	163					
Plastic Mater or Synth Fibres	2821	Birmingham, AL	78					
Primary Iron or Steel Products	3312	Roanoke, VA-NC-WV	17					
Aluminum or Alloy Basic Shapes	3352	Quebec, Canada	177					
Primary Copper Smelter Prod.	3331	Salt Lake City-Ogden, UT-ID	152					
Flour or Other Grain Mill Prod.	2041	Tulsa, OK-KS	124					
Primary Lead Smelter Prod.	3332	Los Angeles-Riverside-OC, CA-AZ	160					
Inorganic Pigments	2816	Lake Charles, LA	86					
Total:								

Note: All carloads reported in the table are based on observed traffic in 2023.

Sources: Combined Waybill Data; UPRR_SCRS_Full_Desc_20250815.txt; 1-A-Raw_UPRR_AAR_Station_Master.txt; 191-A-FSAC_SPLC_FIPS_BEA.xlsx; 2023 Surface Transportation Board Carload Waybill Sample Reference Guide.pdf; transearch_commodity_lookup.csv; Sole-Served and CGP Eligible UP-NS Waybill Record IDs.csv

Exhibit 7: Source Competition: Across Shippers within BEA

				Total Carloads in 2023	Single-line Carloads of Sole-served Receivers in [1]	Carloads in [1] Eligible for Open Gateway Commitment	Carloads in [1] Eligible for Committed Gateway Pricing	Carloads in [1] Eligible for Access Commitments
Commodity	Destination							
STCC Category	STCC	BEA Name	BEA	[1]	[2]	[3]	[4]	[5]
Plastic Mater or Synth Fibres	2821	Cleveland-Akron, OH-PA	55					
Plastic Mater or Synth Fibres	2821	Indianapolis, IN-IL	67					
Potassium or Sodium Comp.	2812	Toledo, OH	56					
Plastic Mater or Synth Fibres	2821	Louisville, KY-IN	70					
Potassium or Sodium Comp.	2812	Kansas City, MO-KS	99					
Potassium or Sodium Comp.	2812	Indianapolis, IN-IL	67					
Plastic Mater or Synth Fibres	2821	Columbus, OH	51					
Wet Corn Milling or Milo	2046	Chicago-Gary-Kenosha, IL-IN-WI	64					
Flour or Other Grain Mill Prod.	2041	St. Louis, MO-IL	96					
Oil Kernels, Nuts or Seeds	0114	Twin Falls, ID	149					
Potassium or Sodium Comp.	2812	Atlanta, GA-AL-NC	40					
Flour or Other Grain Mill Prod.	2041	Harrisburg-Lebanon-Carlisle, PA	11					
Plastic Mater or Synth Fibres	2821	Jackson, MS-AL-LA	77					
Plastic Mater or Synth Fibres	2821	Lexington, KY-TN-VA-WV	47					
Potassium or Sodium Comp.	2812	Charlotte-Gastonia-Rock Hill, NC-SC	23					
Potassium or Sodium Comp.	2812	Augusta-Aiken, GA-SC	27					
Plastic Mater or Synth Fibres	2821	Albany, GA	37					
Potassium or Sodium Comp.	2812	Norfolk-Virginia Beach, VA-NC	20					
Gum or Wood Chemicals	2861	New Orleans, LA-MS	83					
Cyclic Intermediates or Dyes	2815	Memphis, TN-AR-MS-KY	73					
Prepared or Canned Feed	2042	Queretaro, Mexico	205					
Potassium or Sodium Comp.	2812	Lexington, KY-TN-VA-WV	47					
Total:								

Note: All carloads reported in the table are based on observed traffic in 2023.

Sources: Combined Waybill Data; UPRR_SCRS_Full_Desc_20250815.txt; 1-A-Raw_UPRR_AAR_Station_Master.txt; 191-A-FSAC_SPLC_FIPS_BEA.xlsx; 2023 Surface Transportation Board Carload Waybill Sample Reference Guide.pdf; transearch_commodity_lookup.csv; Sole-Served and CGP Eligible UP-NS Waybill Record IDs.csv

47. The results show that a preponderance of flagged destination-commodity pairs and origin-commodity pairs have traffic that is eligible for the conditions. Exhibit 6 and 7, Columns [3], [4], and [5] show that at least one of the three conditions offered by the Applicants is present in all but {{ }} of the flagged origin-commodity pairs (Exhibit 6) and all but {{ }} of the flagged destination-commodity pairs (Exhibit 7).

5 IMPLICATIONS OF COMPETITIVE RESPONSES FOR THE BENEFITS OF THE MERGER

48. As explained above, in light of the STB’s request PB-1, I have been asked to comment on the implications of competitor responses for the benefits of the merger that I discuss in my April VS.
49. In Section 3 of my April VS, I discuss the benefits of the proposed merger. In particular, I explain that the proposed merger will replace current interline services with single-line services. Replacing interline service with single-line service is expected to lead to lower costs, faster transit times, more timely quotes, and fewer handling mistakes. In my April VS I provide two indications of the extent to which these benefits would manifest themselves for shippers.
50. First, my April VS discusses how these improvements will directly benefit customers currently shipping roughly 877,000 carloads via UP-NS interline service that will become direct single-line service.³⁹
51. Second, my April VS discusses how the Hunt VS projects that the expansion of single-line service options would result in the diversion of 1.95 million carloads and intermodal units away from other options and to the improved UP/NS combined single-line service.⁴⁰ Each diverted carload would be the result of a shipper “voting with their feet” to adopt a choice that is better for them than any of their other options, and I use these projections to indicate

³⁹ See April VS at ¶ 48.

⁴⁰ See 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. 36873 (“Hunt VS”), at Exhibit 2-4. I understand that diversion figure has been updated from 1.98 million to 1.95 million which does not change my opinion.

the number of carloads that would benefit from the introduction of UP/NS single-line services, in addition to the carloads that currently use UP/NS interline services.

52. In addition, I further state in my April VS that “...the combined railroad is projected to gain share from rail competitors as well as from trucking competitors according to the Hunt VS”⁴¹ and that “...increases in the market share of the combined railroad reflect more robust competition post-merger, as customers shift business in response to the efficiencies created by their merger.”⁴²
53. To the extent that actual competitive responses to the introduction of single-line rail service were to, all else equal, ultimately result in fewer diversions than those projected by the Hunt VS, then the benefits in my April VS would be understated. In particular, if UP’s and NS’s competitors respond to the new single-line service with improved service in order to retain and attract customers,⁴³ some customers that might otherwise have diverted to UP/NS might choose to continue service with those competitors under the improved terms instead. Importantly, customers would refrain from diverting only if doing so were an even better option than diverting to UP/NS would have been. That is, the benefits in my April VS would be understated if some customers of the combined railroad’s competitors ultimately do not divert to the combined railroad but instead choose to continue service with those competitors due to their improved terms because those customers would be revealing that refraining from diverting and instead benefiting from competitors’ improved terms is an even better option

⁴¹ See April VS at ¶ 85.

⁴² See April VS at ¶ 85.

⁴³ See April VS at ¶ 49 and Section 3.2.

for them relative to the option of diverting and benefiting from the combined railroad's improved terms.

I declare under penalty of perjury that the foregoing is true and correct.

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke, positioned above a solid horizontal line.

July 17, 2026

APPENDIX A

MATERIALS RELIED UPON

Regulatory Materials

- Applicants' Second Submission in Response to STB Decision No. 21 in Docket No. 36873
- STB Decision 21, Decision No. 21 in Docket No. FD 36873

Verified Statements

- Verified Statement of Elizabeth M. Bailey, Ph.D., Finance Docket No. 36873, April 27, 2026
- Supplemental Verified Statement of Dr. Mark Israel

Publicly Available Materials

- KSDK, "Alton Steel to shut down operations, affecting 253 employees amid industry challenges," January 26, 2026, available at <https://www.ksdk.com/article/news/local/business-journal/alton-steel-to-shut-down-operations-affecting-253-employees-amid-industry-challenges/63-799d9761-36cc-4c48-8b9f-7b839d077527>
- Lineage, Inc., "Our Heritage and History," available at <https://www.onelineage.com/about-us/heritage>
- National Labor Relations Board, "Ruan Transportation/Single Source Division," Case Number: 30-CA-015750, Date Filed: November 19, 2001, available at <https://www.nlr.gov/case/30-CA-015750>
- U.S. Department of Transportation, Federal Motor Carrier Safety Administration, Safety and Fitness Electronic Records (SAFER) System, "Company Snapshot," available at <https://safer.fmcsa.dot.gov/query.asp>
- UTC Washington Utilities and Transportation Commission, "UTC Company Details SINGLE SOURCE TRANSPORTATION CO.," available at <https://www.utc.wa.gov/company/41036>

Data

Highly Confidential Data & Instructions

- NS Railroad Traffic Tapes, 2025 [NS_00038559.CSV]
- Sole-Served and CGP Eligible UP-NS Waybill Record IDs.csv
- UP Railroad Traffic Tapes, 2025 [UP_0022690.txt]

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Docket No. FD 36873

**UNION PACIFIC CORPORATION, ET AL. – CONTROL – NORFOLK SOUTHERN
CORPORATION, ET AL.**

SUPPLEMENTAL VERIFIED STATEMENT OF MARK A. ISRAEL

July 17, 2026

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I. INTRODUCTION

A. QUALIFICATIONS

1. My name is Mark Israel. I am a Founding Partner at Econic Partners, an economic consulting firm I joined in April 2025. I have previously submitted a verified statement in this proceeding that includes a full description of my qualifications. An updated version of my curriculum vitae is attached as Attachment 1.

B. ASSIGNMENT

2. In its May 26, 2026 decision, the Surface Transportation Board (the “Board”) requested additional information from Union Pacific Railroad Company (“UP”) and Norfolk Southern Railway Company (“NS”; together “Applicants”).¹ Counsel for Applicants have asked that, where my economic expertise enables me to do so, I provide certain information the Board requested that is related to the Committed Gateway Pricing (“CGP”) program.
3. Specifically, counsel for UP and NS have asked me to respond to the Board’s request for information on the effect that excluding certain traffic types has on the net benefits from the CGP program. Counsel have also asked me to calculate the net benefits associated with the updated CGP program that Applicants have proposed. In addition, counsel have asked me to address the CGP-related effects of a BNSF-CSX merger—including the impact of the CGP program on shipper welfare—should such a merger occur. Finally, counsel have asked me to elaborate on how measurement of merger-induced diversions can speak to public benefits from a merger.

II. SUMMARY OF CONCLUSIONS

4. I reach the following conclusions, developed in more detail in the remainder of my statement:

¹ *Union Pacific Railroad company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company*, Surface Transportation Board, Docket No. FD 36873, May 26, 2026 (hereinafter “Decision 21”).

- Following the proposed merger, the enhanced CGP program will increase access to sole served-points on UP/NS's network.
- Because the benefits from the enhanced CGP program will exceed any effects from upward pricing incentives, it will generate positive net benefits.
- Where competition is available, it is preferable to regulation for establishing rates. Hence, expanding the CGP program to routes that have competition on each end is unlikely to improve the economic performance of those routes.
- A follow-on end-to-end merger would enhance competition for the reasons I explained in my April 24, 2026 verified statement. Whether a second CGP program associated with a follow-on merger would enhance competition would depend on the details of competition between railroads and would merit scrutiny should a follow-on merger occur.
- Truck-to-rail diversions provide a clear demonstration of the beneficial impact of a rail merger. Merger-induced competitive responses by railroads—including those from a follow-on merger—that reduce rail rates and/or improve rail service can reduce measured rail-to-rail diversions even as they further benefit shippers.

III. THE EXPANDED COMMITTED GATEWAY PRICING PROGRAM ENHANCES COMPETITION AND SHIPPER WELFARE

5. To enhance and extend the benefits of the UP/NS merger, Applicants incorporated Committed Gateway Pricing ("CGP") into their merger application. Following the merger, CGP rates reflect the efficiency gains and improved pricing incentives that UP/NS will achieve via the merger. Using these rates, BNSF and CSX will be able to compete for shipments to and from UP/NS sole-served points. From a competitive point of view, the CGP program effectively acts as a haulage agreement that allows BNSF and CSX to compete for traffic to/from UP/NS sole-served points at rates determined by market conditions.
6. As originally conceived and described in my April 24, 2026 verified statement, the CGP program extends the benefits of the merger to interline routes between sole-served locations that would not otherwise directly benefit from new single-line service and other efficiencies

that the merger generates. “Committed Gateway Pricing accomplishes this by using UP/NS rates—rates that reflect the benefits of improved pricing incentives and cost reductions generated by the merger—to determine the rates that may be used *by CSX and BNSF* to set through rates for eligible traffic. Moreover, because CGP also incorporates rates established on routes with existing intra-modal competition between UP/NS and CSX and BNSF, CGP extends the benefits of that competition to routes that are otherwise sole-served and do not benefit from such competition.”²

7. Applicants have made two changes to the CGP proposal to expand its coverage and to enhance access to and competition on routes originating or terminating at sole-served locations on the UP/NS network. First, focusing on CSX, the expanded CGP proposal allows CSX to access UP sole-served locations from points that are *either* sole served by CSX or served by CSX in competition with other carriers. There is an analogous CGP proposal to provide BNSF access to NS’s sole-serve locations from points that are *either* sole served by BNSF or served by BNSF in competition with other carriers. Second, the expanded CGP proposal now covers bulk unit trains, which were excluded from the initial proposal.
8. Below, I briefly review the CGP proposal and how CGP rates are determined. I then provide examples that illustrate how the CGP proposal enhances access to and competition on routes with sole-served segments on the UP/NS network.

A. THE COMMITTED GATEWAY PRICING PROPOSAL

9. The CGP proposal is a market-based mechanism that allows not just UP/NS, but also BNSF and CSX, to offer the benefits of existing competition and the improved pricing incentives and cost reductions that flow from the merger to eligible shippers. The CGP methodology and Applicants’ expansion of CGP’s coverage are explained elsewhere in the Amended

² Verified Statement of Mark A. Israel, Ph.D., April 24, 2026, p. 67.

Application and Applicants submission in response to Decision No. 21.³ As a brief summary, the CGP methodology broadly consists of three steps:

- Identify relevant traffic by commodity and distance categories, designed to reflect commodity groupings subject to similar market forces and cost structures;⁴
- Identify UP/NS rates for traffic in the relevant commodity and distance categories and set the CGP rate to the 70th percentile of the UP/NS rates (in dollars per car-mile);⁵ and
- Provide to BNSF and CSX, separately, the CGP rate for each commodity and distance group.⁶

10. The CGP rates are the guaranteed rates at which UP/NS will provide service on an eligible UP/NS segment for each commodity group and distance band. Traffic eligible for the expanded CGP program is defined to be manifest traffic and bulk unit trains to or from sole-served customers on the UP/NS network (or a short line interchanging traffic solely with UP/NS) which interchanges across one of the major east-west gateways—Chicago, St. Louis, Memphis, or New Orleans—to or from a location served by CSX or BNSF (or a short line

³ See Applicants’ Second Submission in Response to Decision No. 21, Section II A and Verified Statement of Katherine N. Novak, April 29, 2026 (hereinafter “Novak April V.S”), for a description of the Committed Gateway Pricing proposal.

⁴ The comparable traffic groups consist of 23 market categories based on commodity classification and four distance categories, resulting in 92 groupings based on commodity and distance. Certain traffic, such as intermodal and finished vehicles, and are not covered by CGP.

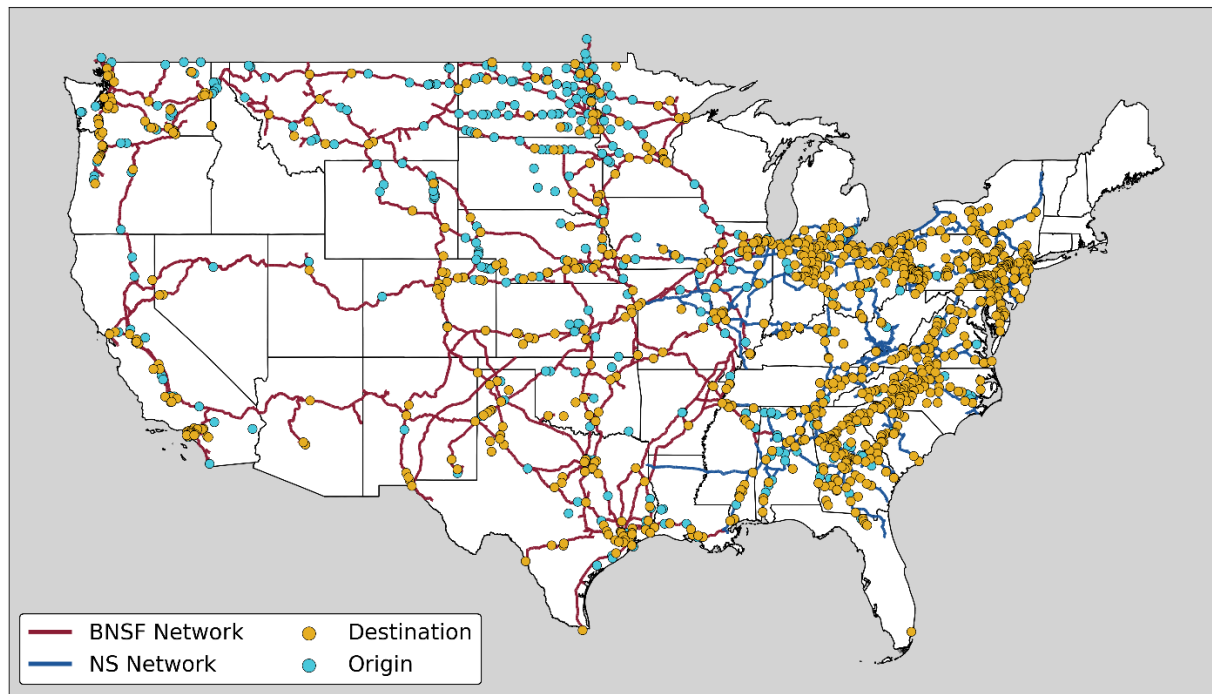
⁵ The identified groupings are populated with rates based on UP/NS traffic movements for a twelve-month period. For each commodity-distance grouping, the rate and distance associated with a corresponding UP/NS shipment is collected, and the rate per car-mile is calculated. If there are 100 or more shipments in a grouping during the period, then the rate calculation will be determined based on shipments in that grouping. If fewer than 100 shipments are within a grouping, then aggregated data for the distance range will be used to determine the car-mile rate; see Novak April V.S., pp. 16, 35. Requiring a minimum number of shipments reduces the likelihood that outliers or non-representative observations affect the calculated rates. For purposes of determining shipments, a combination of waybill date and equipment identifier is used.

⁶ To account for the fixed costs associated with originating or terminating a rail movement, a minimum price based on 250 miles is applied to the car-mile rates for a commodity grouping to otherwise adjust for very short moves. See Novak April V.S., § I.B.2.

interchanging traffic with CSX or BNSF) at the other end. The BNSF or CSX location can be either sole-served or served in competition with other carriers.

11. Figure 1 and Figure 2 below illustrate the origins and destinations of shipments eligible for the enhanced CGP program using 2024 data. The figures show that shipments eligible for the expanded CGP program span the rail networks of UP/NS and of BNSF and CSX. There are 7,578 lanes with traffic that is eligible for the expanded CGP.⁷ The breadth of coverage of the enhanced CGP program ensures it is available to a broad array of shippers across the United States.

Figure 1
CGP Eligible Shipments: BNSF

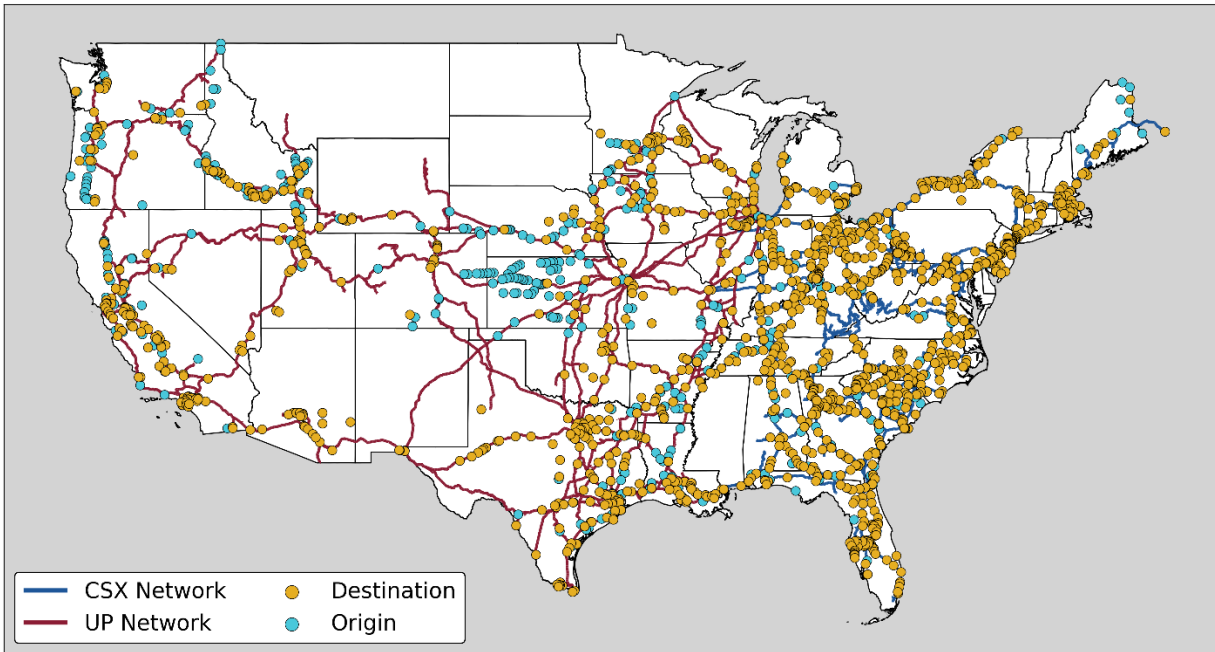


Source: Workpaper folder “Figures 1-2”

Note: Shippers located off the UP, NS, CSX or BNSF rail networks are connected via a short line.

⁷ A lane is defined as an origin SPLC to destination SPLC pair. SPLCs often contain many shippers, so each eligible lane may serve multiple shippers. See my backup materials.

Figure 2
CGP Eligible Shipments: CSX



Source: Workpaper folder “Figures 1-2”

Note: Shippers located off the UP, NS, CSX or BNSF rail networks are connected via a short line.

12. The CGP rate provides one rate that BNSF or CSX can use to move eligible traffic over UP/NS lines. However, it is important to note that nothing prevents shippers from negotiating for a rate below the CGP rate using Rule 11 or as part of a through rate for the movement. In that sense, the CGP rate is best thought of as a cap on the rate that UP/NS can charge on eligible movements interchanged with CSX or BNSF.
13. The CGP program is analogous to a haulage agreement under which UP/NS completes movements for another carrier to sole-served locations on its network. The Board has recognized that haulage agreements promote competition.⁸ In effect, the CGP program addresses concerns over pricing on UP/NS “bottleneck” segments by capping rates at the 70th

⁸ See Surface Transportation Board, “STB Enforces Merger Condition Facilitating Continued Competitive Options for Grain Traffic to Gulf Coast”, July 7, 2025, available at <https://www.stb.gov/news-communications/latest-news/pr-25-24/>. CPKC’s “ability to use haulage rights originally established in 1988 to transport grain traffic over [UP] tracks between Beaumont, Texas, and the ports of Houston and Galveston [...] facilitates continued competitive options for shippers moving grain through Kansas City to the Gulf Coast ports.”

percentile of the rates UP/NS charges for shipments of similar commodities and of comparable distances on other routes. The price cap benefits shippers for whom the CGP rate binds (*i.e.*, the shippers who would otherwise pay more than the CGP rate) because, as a matter of economics explained more fully below, BNSF and CSX will pass through some or all of a price reduction to the shipper, and competition between railroads will force them to pass through the price reduction on routes that are not sole-served on each end. Shippers eligible for the CGP program but with rates lower than the applicable CGP rate are unaffected by the program.

B. THE EXPANDED CGP PROPOSAL ENHANCES ACCESS TO AND COMPETITION ON ROUTES WITH UP/NS SOLE-SERVED SEGMENTS

14. The following examples illustrate how the CGP program brings both the benefits of the UP/NS merger and new competition for shippers to and from the sole-served locations on the UP/NS network. To illustrate the benefits of the CGP program to shippers, I address two cases: (1) sole-served to sole-served locations and (2) dual-served BNSF or CSX locations to sole-served UP/NS locations.

1. Committed Gateway Pricing on Routes between Two Sole-Served Locations

15. Figure 3 illustrates a route between a UP/NS (legacy UP) sole-served location (A) and a CSX sole-served location (B) through a gateway (G). This route has two independently priced sole-served segments. The equilibrium rates on the route are inefficient because each railroad sets its rate to maximize its own profit without considering the negative effect of its price increases on the other railroad. As a result, independent pricing by UP and CSX leads to an aggregate rate on the route that is higher than the rate that an integrated monopolist would charge (known as the “double marginalization” problem).

Figure 3
CGP Eligible Route between Two Sole-Served Locations



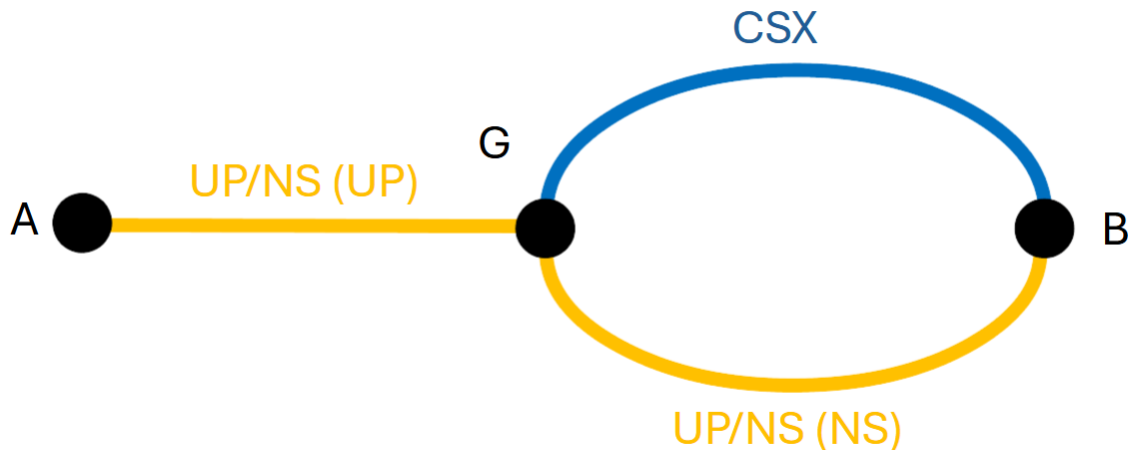
16. Each railroad in Figure 3 will set its price based on its marginal cost of serving its segment and the price set by the other railroad. To illustrate the effects of CGP pricing, consider a shipper that, before the merger, contracted using Rule 11 and paid \$100 to each of UP and CSX. Assume that the CGP rate on the UP/NS segment is \$80.
17. When setting its rate, CSX treats UP's price as part of the marginal cost of service whether it provides a Rule 11 rate or a through rate to the shipper. The CGP rate is available only to CSX when it sets a through rate. Thus, when setting a through rate for the shipper, CSX sees the marginal cost of serving the shipper falling by \$20 with the introduction of the CGP program. As a result of the decrease in marginal cost, CSX's optimal price for a through rate is less than the \$200 total price before the merger. The exact amount of this cost reduction that is passed through as a price reduction depends on the nature of competition and the shape of the demand curve and could be less than, equal to, or greater than 100% of the reduction. See Appendix A.
18. The key points from the above discussion are that: (i) the CGP rate will reflect UP/NS's gains in efficiency and its improved pricing incentives following the merger, and (ii) those benefits will be passed on in whole or in part to the shipper.⁹ Thus, the CGP program brings the benefits of the merger to routes and shippers that would not otherwise benefit directly from new UP/NS single-line service.

⁹ Prices used to calculate CGP rates come from the pre-merger period for the first year of Committed Gateway Pricing. See Novak April V.S., Appendix A.

2. Committed Gateway Pricing on Routes between a UP/NS Sole-Served Location and a Dual-Served Location

19. Figure 4 illustrates a route from A to B through a gateway at G, where point A (legacy UP) is sole-served and location B is served by CSX and UP/NS (legacy NS). On this route, the CGP program creates competition between CSX (using the CGP rate) and UP/NS for traffic between A and B.

Figure 4
CGP Eligible Route Between Sole-Served and Dual-Served Locations



20. Competition between UP/NS and CSX will lead to lower rates for shippers when the CGP rate binds on the western leg of the route. As a simple example, consider a shipper using Rule 11 to negotiate for transportation between A and B. Assume that the marginal cost on the CSX and NS segments between location B and the gateway is \$20 for each carrier. Prior to the UP/NS merger, NS and CSX would compete on the segment between the gateway and location B. Under standard economic conditions, this competition drives their rates to their

marginal costs, or \$20.¹⁰ Based on the rate charged for the G-B segment, UP would set its rate for transport on the sole-served segment between location A and the gateway. Assume UP's rate is \$100, which implies the total rate for a movement from A to B is \$120 without the CGP program.

21. Following the merger, assume that the CGP rate on A-G is \$80 and that there is no quality difference for the UP/NS single-line service relative to UP/NS-CSX interline service using Committed Gateway Pricing. Suppose further that the marginal cost on the UP segment between location A and the gateway is lower than the CGP rate. Under these assumptions, price competition would lead UP/NS to offer a price just below the sum of the CGP rate and the marginal cost for the NS's G-B segment, *i.e.*, \$100, and win the competition.¹¹
22. In cases in which single-line service from UP/NS commands a quality premium from the shipper, competition ensures that the equilibrium rate remains tied to the CGP rate. Said differently, in this case, competition will equalize the quality adjusted rates. If the quality premium for single-line service is, for example, \$15, UP/NS could win the business on the route with a price just slightly below \$115. If UP/NS charged more than \$115, the shipper would prefer to contract with CSX for \$100.

C. WHERE IT IS PRESENT, COMPETITION IS PREFERABLE TO REGULATORY INTERVENTION, INCLUDING COMMITTED GATEWAY PRICING

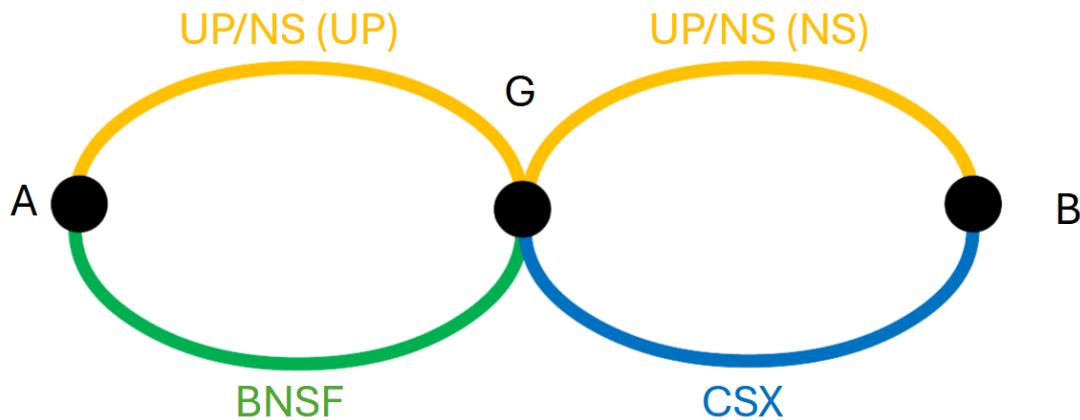
23. The CGP proposal excludes certain commodity types. Some of these exclusions reflect the benefits of allowing competition, where it exists, to establish rates for rail transportation. For example, although the revised CGP proposal applies to routes that are dual-served at the origin or at the destination, it does not apply to routes that are dual-served at each end, such as the route shown in Figure 5. On that route, UP/NS and BNSF serve the segment from

¹⁰ If CSX had a higher marginal cost than NS on the segment between G and B, UP/NS would win the competition for the shipper by slightly undercutting CSX's marginal cost for the entire route. Assuming that the marginal cost on the UP's A-G segment is lower than the CGP rate, 100% of the price reduction on the UP segment is passed through to the shipper, as above.

¹¹ See Appendix A.

location A to the gateway at G, and CSX and UP/NS serve the segment between the G and location B. Following the merger, routes with this configuration of railroads retain two carriers on each segment, meaning there continues to be competition for each segment.

Figure 5
Route between Two Dual-Served Locations



24. There are several arguments against applying CGP to routes with competition at each end following the proposed merger. First, dual-served routes, by definition, do not have a sole-served segment that allows one railroad to control rail access to a shipper's location. The problem that the CGP program is designed to address is not present. Rather, competition is present to discipline rates and will remain present post-merger, so an intervention like CGP is not needed. Second, where competition is present to establish rates for the shipper, cases of observed higher prices are likely to be the result of higher costs. A price cap based on rates on other routes where costs are lower therefore risks setting rates on the higher-cost routes that are below those higher costs. That is, if a price cap sets the price below a high *competitively set* price, it is likely because that price cap is based on a *different route with lower costs* and thus that the price cap is inappropriately low and will not allow UP/NS to recover its costs. Third, placing a cap on UP/NS's rates on competitive routes would lower UP/NS's incentives to invest to attract the shippers that pay the highest rates away from competitors on those routes. Reduced investment would lead to a relative reduction in service quality over time for shippers. Finally, applying CGP on routes that are dual-served

at each endpoint removes the most competitive routes from the set of routes used to calculate CGP rates. This is potentially harmful because removing the most competitive routes from the set of routes used to establish CGP rates will tend to raise the resulting CGP applicable to eligible shipments.

25. The CGP proposal also excludes intermodal shipments. Because almost all intermodal traffic is trucked from or to the origin or destination, respectively, direct rail competition is not relevant. What is relevant is whether railroads have a terminal somewhere reasonably accessible to a shipper's location. The shipper can choose the best intermodal service from the available intermodal terminals based on price, service, speed, capacity and trucking cost to and from the terminal. In general, intermodal shipments are highly competitive with effective rail competition, as well as competition from trucks. As noted above, where significant competition is present, interventions in the marketplace would distort competitive outcomes and generally lead to worse outcomes.¹²

26. The CGP proposal also excludes dimensional loads. This exclusion makes economic sense because dimensional loads cover a wide range of movements, and their pricing reflects the planning and additional services required to safely transport the shipment, which can vary considerably depending on the specific details of the movement. For example, different types of dimensional loads may have different routing considerations and require different ancillary services to complete the movement safely and efficiently. Pricing is also not based on car-miles over the shortest route but instead reflects considerations specific to the particular loads. To illustrate, the considerations and per car-mile cost factors for shipping oversize chemical reactor vessels vs. wind turbine blades are unlikely to be the same.¹³ Therefore, creating a CGP rate that would cover shipments of both types of dimensional loads would require grouping rates on shipments that are not the same, and whose resulting rates are not based on the same factors, to calculate the 70th percentile. Applying a single

¹² When the intermodal terminal is owned by the railroad, there may be services included in the rate that are not included in intermodal rates to independent terminals. Such differences in rates means that groups of intermodal rates may not be comparable. See, Applicants' Second Submission in Response to Decision No. 21, Section II B, EC-1.

¹³ See, Applicants' Second Submission in Response to Decision No. 21, Section II B, EC-1.

price cap to those and other types of dimensional loads therefore risks significant mispricing. In such a situation, when the price cap binds for a given movement, it is likely because *other movements*, on which the price cap is based, have lower costs than the movement in question. But applying a price cap based on those other movements is not appropriate, as it would not allow UP/NS to recover the costs of the movement in question.

IV. CGP SIMULATION OF ADDITIONAL SHIPMENT INCLUSIONS

27. In its acceptance of the Amended Application for the merger of UP and NS, the Board requested additional simulations of the welfare impacts of Committed Gateway Pricing. Specifically, the Board asked the Applicants to quantify, separately for each exclusion or limitation in the CGP proposal, “the degree to which inclusion in CGP would generate consumer surplus for the excluded group” using the model that I presented in my April 24, 2026 verified statement.¹⁴

28. I have performed the additional simulations as requested. Below, I present the results of these simulations, both for the CGP proposal as presented in the April application, and for the expanded CGP proposal.

A. WELFARE EFFECTS OF ADDITIONAL SHIPMENT INCLUSIONS UNDER THE ORIGINAL CGP PROPOSAL

29. I first present the results of the additional simulations based on the original CGP proposal, as presented in the Applicants’ April application. Following the Board’s directive, I conduct these simulations separately for each group of shipments excluded from the CGP proposal. I analyze all seven exclusions identified by the Board, as well as two other exclusions described in the verified statement of Katherine N. Novak.¹⁵ The results of these simulations are displayed in Figure 6 and Figure 7 below.

¹⁴ Decision 21, p. 21, EC-1.a.

¹⁵ Decision 21, fn. 22; Novak April V.S., ¶ 25.

Figure 6
Summary of Shipments Affected by the Original CGP Proposal

	Total Number of Carloads			Total UP/NS Revenues (\$ Million Per Year)		
	Used for Calculation of CGP	Eligible for CGP	Potentially Benefiting from CGP	Used for Calculation of CGP	Eligible for CGP	Potentially Benefiting from CGP
<u>Original CGP Proposal</u>	344,608	133,890	35,729			
<u>Additional Shipment Inclusions:</u>						
Bulk unit trains	419,119	175,367	50,950			
TIH/PIH materials	346,452	134,255	35,953			
Intermodal	1,039,407	211,075	75,053			
Finished vehicles	409,225	155,862	37,090			
Additional interchange points	372,738	139,106	34,423			
Additional rail carriers	432,369	216,883	56,288			
Shippers with direct rail-to-rail competition						
On either or both ends	184,562	293,936	36,256			
On CSX's or BNSF's end only	280,302	198,196	50,314			
Dimensional loads	344,793	133,961	35,798			
Rail carriers' facilities	345,358	133,997	35,745			

Source: Workpaper “CGP Results Summary - Original CGP Proposal.xlsx”

30. Figure 6 provides a summary of the shipments affected by the original CGP proposal, as well as those affected by the additional shipment inclusions, both in terms of the number of carloads and the associated UP/NS revenues. Each row shows the total amounts as if the original CGP proposal were modified by the additional inclusion. The first and fourth columns of the figure show the number of carloads and UP/NS revenues, respectively, for the shipments used to calculate the CGP rates. The second and fifth columns show the number of carloads and UP/NS revenues, respectively, for the shipments eligible for the CGP rates. Lastly, the third and sixth columns of Figure 6 show the number of carloads and UP/NS revenues, respectively, for the shipments potentially benefiting from the CGP proposal (meaning those with per car-mile rates exceeding the CGP rates).

Figure 7
Summary of Estimated Shipper Benefits from the Original CGP Proposal

	Estimated Shipper Benefits (\$ Million Per Year)		Changes Relative to CGP Proposal (\$ Million Per Year)	
	Initial Period	Subsequent Periods	Initial Period	Subsequent Periods
<u>Original CGP Proposal</u>	\$43.15	\$28.99	-	-
<u>Additional Shipment Inclusions:</u>				
Bulk unit trains	\$46.51	\$29.48	\$3.36	\$0.50
TIH/PIH materials	\$46.54	\$33.49	\$3.39	\$4.51
Intermodal	\$129.91	\$81.27	\$86.76	\$52.28
Finished vehicles	\$43.63	\$29.11	\$0.48	\$0.13
Additional interchange points	\$45.49	\$32.21	\$2.35	\$3.22
Additional rail carriers	\$67.67	\$65.99	\$24.53	\$37.00
Shippers with direct rail-to-rail competition				
On either or both ends	\$47.90	\$48.02	\$4.76	\$19.03
On CSX's or BNSF's end only	\$58.13	\$41.57	\$14.99	\$12.58
Dimensional loads	\$44.92	\$31.25	\$1.78	\$2.26
Rail carriers' facilities	\$43.16	\$29.07	\$0.01	\$0.08

Source: Workpaper “CGP Results Summary - Original CGP Proposal.xlsx”

31. Figure 7 presents a summary of the welfare effects (on shippers) of the original CGP program, along with the welfare effects of the additional shipment inclusions all estimated using my simulation model. As with Figure 6, each row shows the effect of the additional inclusion to the original CGP program. The first column of the figure shows the estimated shipper benefits during the initial period of implementing the CGP proposal, when the CGP rates are determined based on historical UP/NS rates (transacted prior to the merger). The second column of the figure shows the estimated annual shipper benefits in subsequent periods, when the CGP rates are calculated based on UP/NS rates that are set to maximize the profits of the merged firm. The last two columns of the figure highlight the changes in these estimated benefits due to the additional inclusions compared to the original CGP proposal.¹⁶
32. The simulation results regarding the effect of the additional shipment inclusions under the original CGP proposal can be summarized as follows:

¹⁶ As explained in my April 24, 2026 verified statement, the benefit estimates presented in Figure 6 and Figure 7 are almost surely underestimated because my simulation model does not account for additional interline traffic that CSX or BNSF may attract as a result of the lower rates offered by the CGP proposal. See Verified Statement of Mark A. Israel, April 24, 2026, ¶¶ 181-182.

- i. **Bulk unit trains:** The inclusion of bulk unit train shipments increases the number of carloads potentially benefiting from the CGP program from 35.7 thousand to 51 thousand. The UP/NS revenues associated with this set of shipments increase from annually to annually. The estimated shipper benefits from the CGP program increase from \$43.1 million to \$46.5 million during the initial period of CGP implementation, and from \$29 million annually to \$29.5 million annually in subsequent periods.
- ii. **Toxic inhalation hazard and poison inhalation hazard (TIH/PIH) materials:** The inclusion of shipments of TIH/PIH materials increases the number of carloads potentially benefiting from the CGP program from 35.7 thousand to 36 thousand. The UP/NS revenues associated with this set of shipments increase from annually to annually. The estimated shipper benefits from the CGP program increase from \$43.1 million to \$46.5 million during the initial period of CGP implementation and from \$29 million annually to \$33.5 million annually in subsequent periods.
- iii. **Intermodal:** The inclusion of intermodal shipments increases the number of carloads potentially benefiting from the CGP program from 35.7 thousand to 75.1 thousand. The UP/NS's revenues associated with this set of shipments increase from annually to annually. The estimated shipper benefits from the CGP program increase from \$43.1 million to \$129.9 million during the initial period of CGP implementation and from \$29 million annually to \$81.3 million annually in subsequent periods.¹⁷

¹⁷ As discussed in Section III.C above, due to their competitive nature, intermodal shipments are likely to have lower per car-mile rates than non-intermodal shipments. Consequently, the addition of intermodal shipments into both the set of shipments used to determine CGP rates and the set of shipments eligible for the CGP reduces the resulting CGP rates and increases the number of shipments that benefit from them. However, because my simulation model does not account for adverse effects of distorting the competitive outcome in intermodal shipments, the welfare effects I estimate for the inclusion of intermodal shipments in the CGP proposal are likely overestimates. See my backup materials.

- iv. **Finished vehicles:** The inclusion of shipments of finished vehicles increases the number of carloads potentially benefiting from the CGP program from 35.7 thousand to 37.1 thousand. The UP/NS revenues associated with this set of shipments increase from _____ annually to _____ annually. The estimated shipper benefits from the CGP program increase from \$43.1 million to \$43.6 million during the initial period of CGP implementation and from \$29 million annually to \$29.1 million annually in subsequent periods.
- v. **Additional interchange points:** The inclusion of shipments that interchange at gateways other than the four gateways covered by the CGP program decreases the number of carloads potentially benefiting from the CGP program from 35.7 thousand to 34.4 thousand.¹⁸ The UP/NS revenues associated with this set of shipments decreases from _____ annually to _____ annually. The estimated shipper benefits from the CGP program increase from \$43.1 million to \$45.5 million during the initial period of CGP implementation and from \$29 million annually to \$32.2 million annually in subsequent periods.¹⁹
- vi. **Additional rail carriers:** To analyze the effects of the inclusion of additional rail carriers, I consider the scenario in which the Applicants extend the CGP program to the two excluded Class I rail carriers, Canadian National Railway (CN) and Canadian

¹⁸ The decrease in the total number of carloads potentially benefitting from the CGP is due to a substantial increase in the number of shipments that have high per car-mile rates in the commodity group _____, which results in a large increase in the resulting CGP rate for this CGP cell. However, the reduction in estimated shipper benefits in this CGP cell is more than offset by the increase in estimated shipper benefits in other CGP cells, leading to an overall increase in estimated shipper benefits during both the initial implementation period of the CGP proposal and in subsequent periods. See my backup materials.

¹⁹ These estimated increases in shipper benefits are likely overstated because the shipper benefits estimated by my simulation model under the original CGP proposal do not account for shippers substituting from routes that interchange at excluded gateways to routes using CGP-covered gateways in response to the lower rates offered by the CGP proposal.

Pacific and Kansas City Southern (CPKC).²⁰ The inclusion of these additional rail carriers increases the number of carloads potentially benefiting from the CGP program from 35.7 thousand to 56.3 thousand. The UP/NS revenues associated with this set of shipments increase from _____ annually to _____ annually. The estimated shipper benefits from the CGP program increase from \$43.1 million to \$67.7 million during the initial period of CGP implementation and from \$29 million annually to \$66 million annually in subsequent periods.

vii. **Shippers with direct rail-to-rail competition:** To analyze the effects of offering the CGP program on interline routes that have direct rail-to-rail competition, I consider two separate scenarios:

a. *Direct rail-to-rail competition on either or both ends:* First, I consider the scenario where CGP rates are offered on *all* UP-CSX and NS-BNSF interline shipments, irrespective of whether the rail carrier on either end faces any direct rail-to-rail competition. To maintain the separation between shipments eligible for CGP rates and those used to determine the CGP rates, the CGP rates are calculated using only UP/NS rates for UP-NS interline shipments.²¹

In this first scenario, the number of carloads potentially benefiting from the CGP program increases from 35.7 thousand to 36.3 thousand. The UP/NS revenues associated with this set of shipments increase from _____ annually to _____ annually. The estimated shipper benefits from the CGP program increase from \$43.1 million to \$47.9 million

²⁰ I assume that the CGP programs available to CN and CPKC mirror the ones that are being offered to CSX and BNSF. For example, for the CGP program available to CN, the CGP rates are determined based on UP/NS rates for all UP-NS interline shipments (which will become single-line shipments after the merger) and all UP/NS-CN interline shipments, except those that are sole-served by UP/NS on one end and sole-served by CN on the other end. The resulting CGP rates are applicable to sole-served UP/NS-CN interline routes.

²¹ As discussed in my April 24, 2026 verified statement, this separation is necessary to avoid unsustainable feedback in rate determination, whereby the use of rates under CGP in one year affects the rates available under CGP in future years, potentially leading to instability in the distribution of rates. See Verified Statement of Mark A. Israel, April 24, 2026, ¶ 165.

during the initial period of CGP implementation and from \$29 million annually to \$48 million annually in subsequent periods.

- b. *Direct rail-to-rail competition on CSX's and BNSF's ends:* Second, I consider the scenario where CGP rates are offered on UP-CSX and NS-BNSF interline shipments that are sole-served by UP or NS on one end, irrespective of whether CSX or BNSF faces any direct rail-to-rail competition on the other end. Similar to the scenario considered above, to maintain the distinction between shipments eligible for CGP rates and those used to calculate the CGP rates, the additional UP-CSX and NS-BNSF interline shipments that are now eligible for the CGP are no longer utilized to determine the CGP rates.

In this second scenario, the number of carloads potentially benefiting from the CGP program increases from 35.7 thousand to 50.3 thousand. The UP/NS revenues associated with this set of shipments increase from

annually to annually. The estimated shipper benefits from the CGP program increase from \$43.1 million to \$58.1 million during the initial period of CGP implementation and from \$29 million annually to \$41.6 million annually in subsequent periods.

- viii. **Dimensional loads:** The inclusion of shipments of dimensional loads increases the number of carloads potentially benefiting from the CGP program from 35.7 thousand to 35.8 thousand. The UP/NS revenues associated with this set of shipments increase from annually to annually. The estimated shipper benefits from the CGP program increase from \$43.1 million to \$44.9 million during the initial period of CGP implementation and from \$29 million annually to \$31.2 million annually in subsequent periods.

- ix. **Rail carriers' facilities:**²² The inclusion of shipments to and from rail carrier's facilities increases the number of carloads potentially benefiting from the CGP program from 35.73 thousand to 35.75 thousand. The UP/NS revenues associated with this set of shipments increase from _____ annually to _____ annually. The estimated shipper benefits from the CGP program increase from \$43.1 million to \$43.2 million during the initial period of CGP implementation and from \$29 million annually to \$29.1 million annually in subsequent periods.

B. WELFARE EFFECTS OF ADDITIONAL INCLUSIONS UNDER THE EXPANDED CGP PROPOSAL

33. As discussed in Section III.B above, the Applicants have now expanded the CGP proposal to include shipments of bulk unit trains and UP-CSX and NS-BNSF interline shipments that are sole-served by UP/NS on one end, regardless of whether CSX/BNSF faces direct rail-to-rail competition on the other end. Compared to the original CGP proposal, the expanded CGP proposal increases the number of carloads potentially benefiting from the CGP program from 35.7 thousand to 103.7 thousand. The UP/NS revenues associated with this set of shipments increase from _____ annually to _____ annually. The estimated shipper benefits from the CGP program increase from \$43.1 million to \$86.5 million during the initial period of CGP implementation and from \$29 million annually to \$44 million annually in subsequent periods.
34. I have also conducted additional simulations to estimate the welfare effects of additional shipment inclusions under the expanded CGP proposal. The results of these simulations are displayed in Figure 8 and Figure 9 below.

²² In addition to the nine CGP exclusions that I considered here, the CGP proposal also excludes shipments to and from storage-in-transit (SIT) facilities. See Novak April V.S., ¶ 25. Based on information provided by the Applicants, UP has _____ SIT facilities and NS has _____. Given the _____, and the fact that the waybill data does not provide a direct way to identify SIT facilities owned by other carriers, I do not separately analyze the welfare effects of the inclusion of shipments to and from SIT facilities and the inclusion of shipments to and from facilities owned by rail carriers.

Figure 8
Summary of Shipments Affected by the Expanded CGP Proposal

	Total Number of Carloads			Total UP/NS Revenues (\$ Million Per Year)		
	Used for Calculation of CGP	Eligible for CGP	Potentially Benefiting from CGP	Used for Calculation of CGP	Eligible for CGP	Potentially Benefiting from CGP
<u>Expanded CGP Proposal</u>	336,515	257,971	103,676			
<u>Additional Shipment Inclusions:</u>						
TIH/PIH materials	338,266	258,429	103,825			
Intermodal	842,122	524,348	175,144			
Finished vehicles	387,553	293,522	105,905			
Additional interchange points	371,919	268,932	106,822			
Additional rail carriers	410,367	401,939	136,651			
Shippers with direct rail-to-rail competition on either or both ends	194,707	399,779	74,206			
Dimensional loads	336,642	258,100	103,803			
Rail carriers' facilities	337,207	258,136	103,656			

Source: Workpaper "CGP Results Summary - Expanded CGP Proposal.xlsx"

Figure 9
Summary of Estimated Shipper Benefits from the Expanded CGP Proposal

	Estimated Shipper Benefits (\$ Million Per Year)		Changes Relative to CGP Proposal (\$ Million Per Year)	
	Initial Period	Subsequent Periods	Initial Period	Subsequent Periods
<u>Expanded CGP Proposal</u>	\$86.5	\$44.0	-	-
<u>Additional Shipment Inclusions:</u>				
TIH/PIH materials	\$90.1	\$48.8	\$3.6	\$4.7
Intermodal	\$203.9	\$81.6	\$117.4	\$37.6
Finished vehicles	\$85.6	\$44.1	-\$0.9	\$0.1
Additional interchange points	\$90.0	\$46.0	\$3.6	\$2.0
Additional rail carriers	\$125.5	\$100.4	\$39.1	\$56.4
Shippers with direct rail-to-rail competition on either or both ends	\$64.2	\$51.6	-\$22.3	\$7.6
Dimensional loads	\$88.8	\$47.0	\$2.3	\$3.0
Rail carrier facilities	\$86.5	\$44.0	\$0.0	\$0.0

Source: Workpaper "CGP Results Summary - Expanded CGP Proposal.xlsx"

35. The simulation results regarding the expanded CGP proposal can be summarized as follows:

- i. **TIH/PIH materials:** The inclusion of shipments of TIH/PIH materials increases the number of carloads potentially benefiting from the CGP program from 103.7 thousand to 103.8 thousand. The UP/NS revenues associated with this set of shipments increase from _____ annually to _____ annually. The estimated shipper benefits from the CGP program increase from \$86.5 million to _____

\$90.1 million during the initial period of CGP implementation and from \$44 million annually to \$48.8 million annually in subsequent periods.

- ii. **Intermodal:** The inclusion of intermodal shipments increases the number of carloads potentially benefiting from the CGP program from 103.7 thousand to 175.1 thousand. The UP/NS revenues associated with this set of shipments increase from _____ annually to _____ annually. The estimated shipper benefits from the CGP program increase from \$86.5 million to \$203.9 million during the initial period of CGP implementation and from \$44 million annually to \$81.6 million annually in subsequent periods.
- iii. **Finished vehicles:** The inclusion of shipments of finished vehicles increases the number of carloads potentially benefiting from the CGP program from 103.7 thousand to 105.9 thousand. The UP/NS revenues associated with this set of shipments increase from _____ annually to _____ annually. The estimated shipper benefits from the CGP program decrease from \$86.5 million to \$85.6 million during the initial period of CGP implementation and increase from \$44 million annually to \$44.1 million annually in subsequent periods.²³
- iv. **Additional interchange points:** The inclusion of shipments that interchange at gateways other than the four gateways covered by the CGP proposal increases the number of carloads potentially benefiting from the CGP program from 103.7 thousand to 106.8 thousand. The UP/NS revenues associated with this set of shipments increase from _____ annually to _____ annually. The estimated shipper benefits from the CGP program increase from \$86.5 million to \$90 million during the initial period of CGP implementation and from \$44 million annually to \$46 million annually in subsequent periods.

²³ The slight decrease in estimated shipper benefits during the initial period of CGP implementation is due to the large volume and the relatively high per car-mile rate of finished vehicle shipments. As a result, the inclusion of finished vehicle shipments materially increases the fallback CGP rates that are applicable to CGP cells that have less than 100 shipments that can be used to determine a CGP rate. See my backup materials.

- v. **Additional rail carriers:** The inclusion of additional rail carriers increases the number of carloads potentially benefiting from the CGP program from 103.7 thousand to 136.7 thousand. The UP/NS revenues associated with this set of shipments increase from _____ annually to _____ annually. The estimated shipper benefits from the CGP program increase from \$86.5 million to \$125.5 million during the initial period of CGP implementation and from \$44 million annually to \$100.4 million annually.
- vi. **Shipper with direct rail-to-rail competition on either or both ends:** The inclusion of shipments with direct rail-to-rail competition on either or both ends decreases the number of carloads potentially benefiting from the CGP program from 103.7 thousand to 74.2 thousand. The UP/NS revenues associated with this set of shipments decrease from _____ annually to _____ annually. The estimated shipper benefits from the CGP program decrease from \$86.5 million to \$64.2 million during the initial period of CGP implementation and increase from \$44 million annually to \$51.6 million annually in subsequent periods.²⁴
- vii. **Dimensional loads:** The inclusion of shipments of dimensional loads increases the number of carloads potentially benefiting from the CGP program from 103.7 thousand to 103.8 thousand. The UP/NS revenues associated with this set of shipments increase from _____ annually to _____ annually. The estimated shipper benefits from the CGP program increase from \$86.5 million to \$88.8 million during the initial period of CGP implementation and from \$44 million annually to \$47 million annually in subsequent periods.

²⁴ The decrease in the number of carloads potentially benefitting from the CGP, as well as the decrease in the estimated shipper benefits in the initial period of CGP implementation, is due to the movement of UP-CSX and NS-BNSF interline shipments that are dual-served on UP/NS's end—which are shipments that have lower per car-mile rates on average—from the set of shipments that are used to calculate the CGP rates to the set of shipments that are eligible for the CGP rates, which increases the resulting CGP rates in many CGP cells. In subsequent periods, however, this effect is more than offset by the reduction in per car-mile rates for UP-NS single-line shipments due to the elimination of double marginalization, leading to an increase in estimated shipment benefits. See my backup materials.

- viii. **Rail carriers’ facilities:** The inclusion of shipments to and from rail carriers’ facilities decreases the number of carloads potentially benefiting from the CGP program from 103.68 thousand to 103.66 thousand.²⁵ The UP/NS revenues associated with this set of shipments increase from _____ annually to _____ annually. The estimated shipper benefits from the CGP program increase from \$86.46 million to \$86.51 million during the initial period of CGP implementation but decrease from \$44.03 million annually to \$44.01 million annually in subsequent periods.

V. DOWNSTREAM MERGERS AND THE BOARD’S OTHER INQUIRIES

A. THE IMPACT OF CGP ON DOWNSTREAM MERGERS

36. The Board has asked for information regarding the impact of end-to-end mergers that may follow the UP/NS merger on the effectiveness of the CGP program.²⁶ Below, I address the impact of a follow-on BNSF-CSX merger on the competition created by the CGP program, assuming the BNSF and CSX would have to provide an analogous CGP program as a condition of their merger.²⁷
37. Assuming that any horizontal overlaps are addressed appropriately, an end-to-end BNSF-CSX merger would yield significant shipper benefits from the introduction of single-line service and improved pricing and investment incentives.²⁸ Whether inclusion of a CGP-type program as part of a BNSF-CSX merger would increase the associated shipper benefits depends on the resolution of subtle economic issues that arise when competing railroads offer

²⁵ The slight decrease in the total number of carloads potentially benefitting from the CGP is due to a small increase in the number of shipments that have higher per car-mile rates in the commodity group _____, which results in a slight increase in the resulting CGP rate for this CGP cell. See my backup materials.

²⁶ Decision 21, p. 31.

²⁷ This analysis is responsive to the Board’s request DS-2, see Decision, 21, p. 31.

²⁸ A second end-to-end merger would yield benefits for the same reason that the UP/NS merger yields benefits, as described in my April 24, 2026 verified statement.

one another CGP rates. While there are reasons to believe there could be benefits from having two CGP programs, these subtle issues would need to be addressed in detail to reach a final conclusion on the value of a second CGP program, and such detailed analysis is beyond the scope of this statement. Instead, I outline some of the key issues that would need to be considered below.

38. There are two strategic issues that arise from the introduction of a second CGP program. The first issue is the effect of having two carriers' CGP programs available on a route. I show below that, where this occurs, shippers with prices above CGP rate benefit from increased competition and lower rates. Hence, there is scope for important benefits from a second CGP program.
39. However, the second issue raises complications that need to be considered. It is the effect on rates of having two CGP programs with overlapping input sets, *i.e.*, the sets of routes that are the sources of rates used to calculate CGP rates. On these routes, UP/NS has an incentive to increase rates on average. The second CGP program creates incentives for BNSF/CSX to raise rates as well. I show above that the benefits of the UP/NS CGP proposal outweigh the effects of incentives to raise rates. However, it is possible that the compounding effects of having two carriers with incentives to raise rates in markets where they compete would lead to harms from the second CGP program that exceed the benefits. I discuss some of the considerations that influence this magnitude of this incentive to elevate rates below. I have not reached a final conclusion on the benefits of a second CGP program, and the issue requires additional study before a final conclusion on the value of a second CGP program is reached.

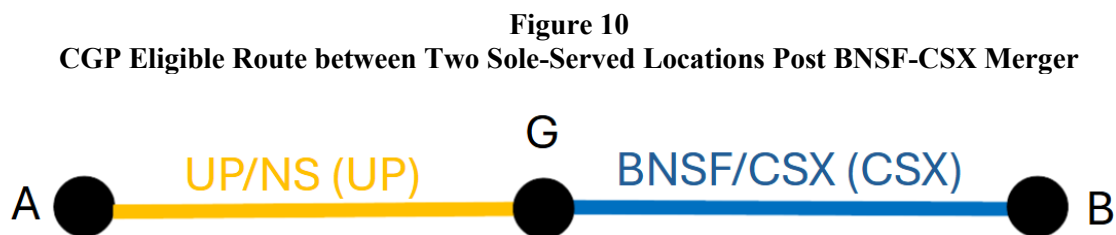
1. Competition and Rates for Shipments on CGP-Eligible Routes.

40. For the analysis of follow-on mergers, I assume that the merging railroads (taken to be BNSF and CSX for concreteness) offer a CGP program with the same features as the current UP/NS proposal.²⁹ My analysis addresses the effect on rates paid by a shipper that would pay more

²⁹ UP/NS does not offer CGP rates to CPKC or CN, which means that the issue of having two CGP programs on the same route is not a concern.

than the carrier's CGP rates absent the CGP programs. The programs have no impact on rates charged to shippers that pay less than the CGP rates, even on CGP-eligible routes.

41. The expanded proposal defines CGP-eligible routes to be those with a UP/NS segment from a sole-served location on the UP/NS network to a major gateway and a BNSF or CSX segment from the gateway to a sole-served or dual-served location. Following the hypothetical merger of BNSF and CSX, each merged carrier would offer CGP rates only on routes where it operates a sole-served segment. Thus, it is possible for the UP/NS CGP program and the hypothetical BNSF/CSX CGP program to overlap only on routes that are sole-served at each end because routes that are dual-served on each end are explicitly excluded and routes with one sole-served segment will have only the CGP program of the railroad operating on the sole-served segment. Routes with only one carrier's CGP program available would function as in the examples above, with only a single merger, and thus no further analysis is required here.
42. Figure 10 illustrates a route serving locations A and B over a gateway G. UP/NS serves A-G and BNSF/CSX serves G-B. The discussion of Figure 3 above provides an analysis of the effect of UP/NS providing a binding CGP rate on the A-G segment when CSX is on the other end. In that example, CSX would use the CGP rate to offer a through rate to the shipper that is lower than the combined rates set by UP/NS and CSX independently when there is no CGP.



43. When BNSF/CSX also offers a CGP program with a rate that is lower than the rate it otherwise receives on G-B, there is competition between the railroads as to which carrier will

contract with the customer.³⁰ Extending the example from Figure 3 above, assume that if there were no Committed Gateway Pricing, UP/NS and BNSF/CSX would each charge the shipper \$100, yielding a total price of \$200 for transportation from A to B.

44. If BNSF/CSX has a CGP rate of, say, \$85 and UP/NS has a CGP rate of \$80, competition between UP/NS and BNSF/CSX will drive the total rate from A to B down from \$200 to \$165, the sum of the railroads' CGP rates.³¹ See Appendix A. To see the logic for why competition drives the total rate down to the sum of the CGP rates in this example, first note that neither railroad would offer a price to the shipper that yielded it a division of the total rate that is less than its CGP rate, which it could earn by completing the movement for the other carrier. Now consider what would happen if BNSF/CSX were to offer the shipper a through rate for an amount greater than \$165. In that case, UP/NS could earn more than its CGP rate of \$80 by slightly undercutting the through rate offered by BNSF/CSX, while paying BNSF/CSX \$85 for its leg. Of course, if UP/NS's proposed rate is also above \$165, BNSF/CSX could profitably undercut the UP/NS rate. This process would continue until one of the carriers offers a total rate of \$165, which neither carrier has an incentive to undercut.
45. When the two merged carriers have competing CGP programs, sole-served routes are no longer effectively sole-served for the shippers with rates above the CGP rates because each railroad has a guaranteed rate at which it can access the other carrier's sole-served locations. For shippers with rates above the CGP rates, the two CGP programs bring direct competition that would not be present without both merged carriers' CGP programs. This competition directly benefits shippers.

2. Rates Used to Calculate CGP Rates; Overlapping Input Sets

46. CGP rates are calculated from UP/NS rates observed on those UP/NS and interline routes that are *not eligible* for CGP rates. These routes are called the "input" set. The CGP rate for a shipment on a CGP-eligible route is the 70th percentile of the rates for shipments on routes

³⁰ The example assumes each railroad's CGP rate binds on its profit-maximizing price given the CGP rate of the other railroad.

³¹ Assume each carrier's CGP rate is greater than its marginal cost on its segment and that the CGP price binds on the price each carrier would charge given that the other carrier charges CGP.

in the input set for the applicable commodity-distance category. As described in my April verified statement and above, the CGP rate acts as a price cap on UP/NS rates on CGP-eligible routes, and (as described in my April statement) it is advantageous for UP/NS to set rates on routes in the input set to increase the CGP price in order to reduce the effect of this cap.³²

47. The benefit of increasing the CGP price creates incentives to raise rates on some routes in the input set. When there is one CGP program, I have shown that the reduction in rates to shippers who get the benefit of Committed Gateway Pricing exceeds the harm from elevated rates on routes in the input set. Whether this result holds with the introduction of the second CGP program depends on the interaction of the two CGP programs and the nature of competition between railroads. Whether two CGP programs materially raise rates more than one depends on how each railroad responds to the higher prices of the other railroad. If one railroad's higher rates lead the other railroad to significantly raise its rates, the strong feedback effect between the two CGP programs could lead to significantly higher equilibrium rates on routes in the input set on which the merged carriers compete. The strength of the feedback effect depends on whether shippers view rail services as homogeneous or differentiated; the less differentiation shippers see between rail services, the less scope for rate increases.³³
48. Fortunately, railroads' services are generally homogeneous. Homogeneity implies that feedback effects are likely to be modest because small differences between railroads' rates

³² See Verified Statement of Mark A. Israel, April 24, 2026, § V.E.2.

³³ If rail service is homogeneous, price competition will be strong. Undifferentiated Bertrand competition yields prices equal to marginal cost. See, Tirole, J. (1988), *The Theory of Industrial Organization*, Cambridge, MA: The MIT Press, pp. 279-280. When prices are driven toward marginal cost firms have little scope to act strategically because doing so is costly. Moreover, firms' strategic actions that influence other firms' choices are intended to protect and expand the margins generated by market power, which is absent with Bertrand competition to sell homogeneous goods. See Bulow, J., et al. (1985), "Multimarket Oligopoly: Strategic Substitutes and Complements," *Journal of Political Economy*, Vol. 93, No.3; Fudenberg, D. and J. Tirole (1984), "The Fat-Cat Effect, the Puppy-Dog Ploy, and the Lean and Hungry Look," *The American Economic Review*, Volume 74, Issue 2, Papers and Proceedings of the Ninety-Sixth Annual Meeting of the American Economic Association.

lead to large swings in traffic between them. Price competition between the carriers is strong, and there is reduced scope for either railroad to act strategically by elevating rates in the input set to increase CGP rates. This logic provides some comfort that my finding that the benefits from a CGP program outweigh any upward price pressure would hold with two CGP programs (from two mergers), but that finding should be confirmed more formally before reaching a final conclusion on whether a second CGP program (with a second merger) is appropriate.

49. Other considerations also affect the likely price impact of having two CGP programs. For example, railroads negotiate contracts over time on a shipper-by-shipper basis. Thus, railroads are not able to change all rates at will, even when they have the incentive to do so. The timing of negotiations and the ability of railroads to predict which rates are most beneficial to raise to influence CGP rates in a particular year also affects the impact of having two CGP programs.
50. To evaluate reliably the impact of a second CGP program on shippers' rates requires detailed modeling of the competition between railroads. Such a study is not necessary to show that the *UP/NS CGP proposal* benefits shippers, and thus I have not undertaken such an analysis at this time.

B. TIME LIMITATION ON COMMITTED GATEWAY PRICING

51. The Board requested information on the effects on the net benefits of the proposed merger of limiting the duration of the CGP program.³⁴ However, even though the CGP proposal generates net benefits as constructed, it is not possible to reach a reliable conclusion that extending the duration of the program would increase those benefits (or even that it would not reduce them) because the assumptions underlying competition, along with the other factors affecting rates on CGP-eligible routes, may change over time. In addition, the simulation of benefits does not consider the program's negative effect on investment incentives (similar to the investment-reducing effects of most rate regulation), and the longer

³⁴ Decision 21, p. 21, EC-2.c.

the life of the program the greater the effects on investment (a long-lived decision) are likely to be.

52. The simulations of the effect of the CGP program on the welfare effects of the proposed merger estimate a net benefit for the first year of the program, when rates from the years prior to the merger are used to calculate CGP rates and benefits. For subsequent years, the simulations consider the incentive to elevate the rates and the elimination of double marginalization on routes used to calculate the CGP rates available to CSX or BNSF, and they once again find net benefits. Of course, such results are only as good as the assumptions underlying them, and while my results are based on current data and thus are solid for the early years of the CGP program, with time, the factors affecting pricing are likely to change. Thus, an estimate of the benefits of the CGP program conducted years from now could yield materially different results because inputs to the model would be different. Predictions more than ten years out are much less certain than prediction for effects in the shorter-term.
53. Moreover, my simulated benefits from the CGP program do not consider the negative effect of the CGP program's price caps on UP/NS's incentives to invest. The CGP program lowers rates for UP/NS's best customers who pay the highest prices. Absent the CGP program, economics predicts that UP/NS would invest over time to meet the needs of these high-value customers. However, the CGP program reduces the profits that can be earned from these customers, and thus economics predicts that it also reduces the incentive to invest to serve them. Reduced investment incentives imply that, over time, the net benefits from the CGP program are likely to fall, making simulation results that ignore such investment effects less reliable as one gets farther in the future, when the effects of reduced investment are likely to have grown. In contrast, providing an end date to the CGP program helps to preserve investment incentives, in order to be able to serve the customers in the future. Overall, a CGP program with a fixed end-date provides a balance, obtaining the benefits of the CGP program while mitigating investment-detering effects of the program.

C. CGP-ELIGIBLE CARLOADS THAT DO NOT BENEFIT FROM THE CGP RATE

54. The Board requested additional explanation on the impact of the CGP program, on carloads identified as eligible for CGP rates but not identified as potentially benefiting from the

program.³⁵ Carloads are considered eligible for CGP rates if they move on one of the routes on which CGP rates are available. This does not mean every carload on such a route receives a lower price from the CGP program. To understand why, note that the CGP rate applicable to an eligible carload is set at the 70th percentile rate for routes in the input set and in the applicable commodity and distance category. This rate will generally be lower than the rates on some shipments on a route that is eligible for the CGP program. Those shipments benefit from the CGP program, because, in those cases, the CGP rate acts as a cap on the amount that UP/NS can charge CSX or BNSF to complete the shipment (as part of a through rate). However, the CGP program has no effect on shipments on the route with rates below the CGP rate because the competitive options available to the shipper provide a lower, more advantageous rate than the CGP program. Such shippers do not benefit from the CGP program (but importantly, they are also unharmed by the program).

VI. SINGLE-LINE SERVICE, DIVERSIONS, AND THE BENEFITS OF THE UP/NS MERGER

55. The merger of UP and NS will create single-line rail service between points in the West and points in the East where only interline rail service was previously available. The introduction of new single-line service is a primary source of public benefits arising from a combined UP/NS. Further benefits are attributable to cost reductions, enhanced investments, and operational integration of the expanded rail network created by the UP/NS.
56. The benefits to shippers from single-line rail service are substantial and well-recognized.³⁶ Where single-line rail service competes with trucks, rail attracts a much larger share of the

³⁵ Decision 21, p. 21-22, EC-3.

³⁶ In approving the merger that formed CPKC, “The Board has recognized more efficient single-line service as a benefit of mergers”, “by creating more efficient, reliable single-line service and better access to expanded markets and by lowering transportation costs.” *Canadian Pacific Railway Limited et al., – Control – Kansas City Southern, et al.*, Surface Transportation Board Docket No. FD 36500, Decision No. 35, March 14, 2023.

See also *CSX Corporation and CSX Transportation, et al – Control & Merger—Pan Am Systems, Inc.*, Surface Transportation Board Docket No. FD 36472, Decision No. 9, April 14, 2022.

total traffic than when only interline rail service is available. As reported by Mr. Hunt, for all available distance categories, rail has a larger share of total traffic when single-line rail service is available than when only interline service is available.³⁷ This finding holds for traffic suitable for intermodal service, as well as for bulk and automotive traffic. The fact that shippers more frequently choose to use rail (rather than competing truck service) when single-line service is available is a direct demonstration of the benefits that shippers obtain from that service. In economics, such choices are known as “revealed preference” and are a well-known way to demonstrate the benefits from a transaction such as a merger.³⁸

57. When single-line rail service is available, it is generally preferred by shippers to competing interline rail service. As shown by Mr. Hunt, single-line service is more frequently utilized by shippers than competing interline rail service.³⁹ Single-line service is chosen two-and-a-half times more often than interline service.⁴⁰

58. Econometric analysis also shows price and quantity benefits to shippers from single-line service. I previously examined single-line v. interline rates. After controlling for numerous other factors that influence rail rates, e.g., commodity, distance, number of Class I railroads, etc., I found that interline rail rates averaged 15 to 29 percent higher than single-line rates, depending on the traffic included and method of pricing.⁴¹ Similarly, Mr. Hunt found econometrically that “impedance,” which incorporates both mileage and a measure for the effect of using a junction (i.e., interchange)—as well as a measure of the junction

³⁷ Verified Statement of David Hunt, April 28, 2026 (hereinafter "Hunt April V.S."), Exhibits 3-1 and 3-2.

³⁸ See, for example, Davis, P. and Garcés, E. (2010), *Quantitative Techniques for Competition and Antitrust Analysis*, Princeton University Press, p. 193; Train, K. (2009), *Discrete Choice Methods with Simulation*, 2nd Edition, Cambridge University Press, pp. 152-156.

³⁹ Hunt April V.S., Exhibit 3-3.

⁴⁰ As I have previously shown, these results reflect the benefits to shippers arising from the availability of single-line service, and not some theoretical case for foreclosure of competing interline rail routes from some economic model ill-suited to the rail industry. The observed greater use of single-line rail instead of truck compared to when only an interline rail option is available cannot be the result of foreclosure by the single-line rail carrier. See Verified Statement of Mark A. Israel, April 24, 2026, §III.

⁴¹ See Verified Statement of Mark A. Israel, April 24, 2026, Figures 10 and 11.

frequency—influenced the share of traffic served by a rail routing between origin and destination areas.⁴² Higher impedance and higher junction frequency both reduced the likelihood that a shipper chose a particular rail routing between origin and destination, further supporting the shipper benefits of single-line service.⁴³

59. Similar findings showing the effects and benefits from merger-created single-line service are also found in academic literature. For example, a recent study of rail mergers found that single-line service created by a merger resulted in a roughly 12% decrease in average price, controlling for other factors, and a 7% increase in the average volume of carloads.⁴⁴ “These findings indicate that efficiency gains following mergers primarily stem from scope-related [new single-line routes] operational improvements rather than merely from increased traffic density on [pre-existing] single-carrier routes. Specifically, significant volume growth occurs predominantly on scope-routes [new single-line routes], reflecting a deliberate strategy by merging railroads to reconsolidate and optimize shipments across their expanded networks.”⁴⁵
60. Enhanced competition between rail carriers provides benefits to shippers through better service and/or lower prices. If, in response to the UP/NS merger, other railroads improve service offerings and/or lower prices, shippers would benefit. Rail traffic that was retained or diverted back to the other railroads as a result of the merger-induced increased competition would reduce the rail-to-rail diversions obtained by UP/NS but would represent a benefit to shippers caused by the merger. Similarly, were a follow-on merger to occur between BNSF and CSX that created additional single-line service options to shippers, the additional competition could result in a diversion of rail traffic to the combined BNSF/CSX. Such diversion would also reflect a benefit to shippers.

⁴² Hunt April V.S., Appendix A, §A.7.

⁴³ For auto traffic, only junction frequency was relevant, which showed an extremely high preference for single-line service. Hunt April V.S., Exhibit A-6.

⁴⁴ Chen, Y. (2026), “Network Structure and the Efficiency Gains from Mergers: Evidence from U.S. Freight Railroads,” *The RAND Journal of Economics*, Table 3 (hereinafter “Chen, 2026”).

⁴⁵ Chen, 2026, p. 7.

61. Diversions of truck-to-rail provide an unambiguous demonstration of the benefits from the merger. Trucking represents a transportation alternative that is generally highly competitive and does not directly depend on rail rates.⁴⁶ The diversion of traffic from long-distance trucking (or long drays) to rail intermodal service, direct rail service, or to shorter drays reflects a clear benefit to shippers from improved rail service resulting from the merger; shippers only move from truck to rail following a merger if they obtain benefits from rail service that were not previously available and that justify the switch.⁴⁷
62. In the face of a competitive response by other rail carriers to the UP/NS merger, additional trucks may be diverted to railroads. Because these competitive responses are generated by the merger—as other railroads attempt to keep up with the improved offerings of the merger carrier—this additional truck-to-rail diversion properly captures additional benefits from the merger. For this reason, total truck-to-rail diversion induced by the merger is a particularly good measure of *total* merger benefits, as it captures all the ways in which the rail industry improves post-merger, both direct effects of the merger and any induced competitive reactions. Said differently, truck-to-rail diversion provides one all-in view on how much more competitive the rail industry is post-merger relative to its pre-merger performance.
63. Importantly, however, diversions premised on changes in shares based on *existing volumes of traffic between origins and destinations* may understate the benefits of new single-line service. Estimates of truck-to-rail diversions resulting from the new single-line service hold certain decisions of shippers and competing transportation providers fixed, by assuming that the *traffic over the corridor is fixed*. Many commodities are not tied to specific origin-destination pairs. Grain products, for example, may have multiple potential destinations; similarly, international container traffic can utilize alternative ports for import or export.

⁴⁶ See, for example, Nevo, Aviv. (2003), “New products, quality changes, and welfare measures computed from estimated demand systems,” *Review of Economics and Statistics* 85, no. 2: 266-275, for a discussion of the welfare effects of quantity changes relative to an outside good.

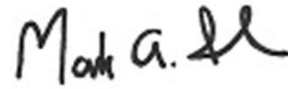
⁴⁷ Because the trucking industry is so competitive, the ability for trucking firms to respond further to improved rail service may be limited: Trucking margins are already quite low due to intense competition. That said, any response by trucks—whether it be to reduce rates or improve service—to the enhanced competition from rail resulting from the merger limits the degree of truck-to-rail diversions but represents additional benefits to shippers arising from the merger.

Shippers may switch traffic to the new single-line rail service from different origins or destinations. For example, international container traffic could switch between East and West coast ports (or between ports on the same coast) in response to improved rail service across the central U.S. watershed. Such shifts are not captured in the existing diversion estimates, which hold traffic between the origin and destination fixed. To the extent there is also traffic growth—effectively diverting traffic from other options to the origin-destination corridors that are improved by the merger—this represents additional shipper benefits not captured in a more static analysis holding origin-destination traffic fixed.

VERIFICATION

I, Mark A. Israel, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this statement.

Executed this 17th day of July, 2026.

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

Mark A. Israel

Appendix: Effects of CGP on Equilibrium Through Rates

I. Routes that are Sole Served on Each End

Notation and Assumptions

Let p_E and p_W be Rule 11 prices for eastern and western legs of a route between the east and west that is sole served on each end. Denote the full price of the route by $p = p_E + p_W$. Shipper demand is $Q(p)$, which I assume is continuous, differentiable, and downward sloping. The marginal cost of serving segment j is c_j , $j \in \{E, W\}$. Denote the CGP price by p_{CGP} .

Pre-Merger Prices

Prior to the merger, the equilibrium Rule 11 prices p_E^* and p_W^* are given by the solution to

$$\max_{p_E} (p_E - c_E)Q(p_E + p_W), \quad (A1)$$

$$\max_{p_W} (p_W - c_W)Q(p_E + p_W). \quad (A2)$$

Using the definition of the full price $p = p_E + p_W$, observe that $p_E = p - p_W$ and $p_W = p - p_E$. Substituting these expressions into (A1) and (A2), the maximization problems can be written

$$\max_p (p - p_W^* - c_E)Q(p), \quad (A1')$$

$$\max_p (p - p_E^* - c_W)Q(p). \quad (A2')$$

Solving either (A1') or (A2') yields the equilibrium full price $p^* = p_E^* + p_W^*$. Maximization problem (A1') is the profit-maximization problem of a railroad in the east quoting a through-rate p while paying p_W^* to the railroad serving the western leg. Symmetrically, (A2') is the profit maximization problem of a railroad in the west quoting a through-rate p while paying p_E^* to the railroad serving the eastern leg. The equivalence between (A1) and (A1') (and between (A2) and (A2')) means that if the price of one segment is equal to the equilibrium Rule 11 price for that segment, then the profit-maximizing through rate quoted by railroad serving the other segment is the same as the equilibrium full price that emerges under Rule 11. This is an implication of the fact that the eastern and western legs of a route between locations in the east and west are perfect complements.

Post-Merger Prices Under CGP

Following the merger, Committed Gateway Pricing ("CGP") constrains the price that the eastern railroad pays the western railroad when offering a through rate to be no higher than p_{CGP} . Using the fact that the full price implied by the choices that simultaneously solve (A1) and (A2) also solves (A1'), the effect of a binding CGP is to lower the eastern leg railroad's marginal cost by

$\Delta MC = p_W^* - p_{CGP}$. By a symmetric argument, the same holds for a through rate offered by the western railroad on routes where the CGP is a binding constraint.

As I observed in the main body of my report, the reduction in marginal cost ΔMC due to the CGP is passed through into the through rate by an amount that depends on the curvature of the demand curve. To illustrate, consider three commonly used demand forms: linear, log-linear, and constant elasticity. These demand forms are from the class of constant curvature demand functions, which exhibit constant but different pass-through rates.¹ In particular, linear demand has a constant pass-through rate of $\frac{1}{2}$, log-linear demand has a constant pass-through rate of 1, and constant elasticity demand has a constant pass-through rate of $\frac{|\epsilon|}{|\epsilon|-1}$ where ϵ is the price elasticity of demand. Assuming $|\epsilon| > 1$, the pass-through rate under constant elasticity demand exceeds one.

The effects of a binding CGP on the through rate for a sole-served route quoted by an eastern railroad under these demand forms is as follows:

Linear Demand:	$\Delta(\text{Through Rate}) = -\left(\frac{1}{2}\right)(p_W^* - p_{CGP})$
Log-Linear Demand:	$\Delta(\text{Through Rate}) = -(p_W^* - p_{CGP})$
Constant Elasticity Demand:	$\Delta(\text{Through Rate}) = -\left(\frac{ \epsilon }{ \epsilon -1}\right)(p_W^* - p_{CGP})$

For illustration, suppose the elasticity of demand is -2, in which case $\left(\frac{|\epsilon|}{|\epsilon|-1}\right) = 2$. In the numerical example given in the main body of my report, where the pre-merger segment-specific price is 100 and the CGP price is 80, the change in the through rate due to the CGP is

Linear Demand:	$\Delta(\text{Through Rate}) = -10 \left[= -\left(\frac{1}{2}\right)(100 - 80) \right]$
Log-Linear Demand:	$\Delta(\text{Through Rate}) = -20 \left[= -(1)(100 - 80) \right]$
Constant Elasticity Demand:	$\Delta(\text{Through Rate}) = -40 \left[= -(2)(100 - 80) \right]$

II. Routes that are Sole-Served on One End and Dual-Served on the Other

I now turn to the effects of the CGP on prices when the merged UP/NS can offer single-line end-to-end service for a route between the east and west and CSX can offer service for the eastern leg of the route. The analysis applies equally to routes where UP/NS can offer single-line end-to-end service and BNSF can offer service for the western leg of the route.

¹ See Bulow, J. and Pfleiderer, P. (1983), “A Note on the Effect of Cost Changes on Prices”, *Journal of Political Economy*, 91(1), pp. 182-185; Weyl, G. and Fabinger, M. (2013), “Pass-through as an Economic Tool: Principles of Incidence Under Imperfect Competition,” *Journal of Political Economy*, 121(3), pp. 528-583.

I assume that two railroads serving the same rail segment are homogenous but may have different costs of serving the shipper. Denote marginal cost by c_{UP} , c_{NS} , and c_{CSX} for UP, NS, and CSX respectively. Similarly, denote leg-specific prices by p_{UP} , p_{CSX} , and p_{NS} . Continue to denote the full price of a route by p . When two railroads compete to serve one leg of a route, they compete as Bertrand competitors.

Pre-Merger Prices

Prior to the merger, suppose first that the shipper uses Rule 11 to obtain rates for the route. Bertrand competition between CSX and NS ensures that the low-cost railroad is chosen at price just below the marginal cost of the higher cost railroad. As in the case of sole-served legs discussed in Section I, UP's profit maximization problem is equivalent to UP offering a through rate while facing a marginal cost on the eastern leg equal to the highest marginal cost between NS and CSX.

Next, suppose UP offers a through rate. In this case, Bertrand competition between NS and CSX yields an eastern leg price equal to the higher marginal cost of the two. In quoting a through rate, UP's marginal cost of the eastern leg is the same as the Rule 11 price for the eastern leg, and it solves the same optimization problem it solves in quoting a Rule 11 rate. The full price paid by the shipper is the same as the full price paid under Rule 11.

If NS and CSX compete by quoting a through rate, their marginal cost of the western leg is the price offered by UP. Because NS and CSX are Bertrand competitors, the through rate is the highest of their marginal costs *for the full route*, which includes the price quoted by UP plus the higher of the two marginal costs for the eastern leg. In quoting a price for its leg, UP recognizes that its price will be marked up by the higher of the NS and CSX marginal costs, which means that its maximization problem again is equivalent to the maximization problem it solves when quoting a Rule 11 price, and the full price paid by the shipper is the same as the full price paid under Rule 11. Thus, the pre-merger outcome for the shipper is fully characterized by considering the full price UP charges in quoting a through rate or a Rule 11 rate conditional on the price of the eastern leg being the highest of the NS and CSX marginal costs.

Post-merger Pricing Under the CGP

After the merger, and under a binding CGP rate, CSX can offer a through rate based on paying p_{CGP} to UP for the western leg. Consider first competition in through rates between CSX and UP/NS. In this competition, CSX's marginal cost of the western leg is p_{CGP} , while UP/NS's marginal cost of the western leg is c_{UP} . Suppose first that CSX's marginal cost for the full route exceeds that of UP/NS: $p_{CGP} + c_{CSX} > c_{UP} + c_{NS}$. In this case, UP/NS will win competition with a through rate just under $p_{CGP} + c_{CSX}$. The reduction in price to the shipper depends on the pre-merger price. If CSX was the high-cost railroad before the merger, the pre-merger price is $p_{UP}^* + c_{CSX}$, where p_{UP}^* is UP's optimal pre-merger price from above. In this case, the reduction

in the shipper's price is 100% of the difference between UP's pre-merger price and its CGP rate. On the other hand, if, prior to the merger, NS had the higher cost on the eastern leg, the reduction in price would be *greater than* the difference between UP's pre-merger price and its CGP rate.

Alternatively, suppose that CSX's marginal cost for the full route is less than that of UP/NS: $p_{CGP} + c_{CSX} < c_{UP} + c_{NS}$. CSX wins the competition with a through rate just under $c_{UP} + c_{NS}$. In this case, UP/NS's marginal costs are sufficiently high that it never wins the shipper's business. CSX can always undercut the lowest price UP/NS is willing to offer. The implication is that lowering the CGP can lower the price to the shipper down to UP/NS's marginal cost (minus a tiny amount to win the business), but not lower.

III. Follow-on Merger of BNSF/CSX with Same CGP Program as UP/NS

Suppose there is a second merger with a CGP program. Consider a route that is sole-served by one merged firm on one leg and sole-served by the other merged firm on the other leg. Let p_i and p_j be the CGP rates for legs i and j of the route. Define $p^*(p_j + c_i)$ as the unconstrained profit maximizing through rate for the railroad serving leg i given CGP rate p_j and marginal cost c_i . That is

$$p^*(p_j + c_i) = \operatorname{argmax}_p (p - p_j - c_i)Q(p).$$

I analyze equilibria under the CGP under the following assumptions.

Assumption 1: $p_i \geq c_i, i = 1, 2$.

Assumption 2: All profit functions defined below are continuous and strictly unimodal (single-peaked).

Assumption 3: $p^*(p_j + c_i) \geq p_1 + p_2, i = 1, 2, j \neq i$.

Proposition: Under Assumptions 1, 2, and 3, there is a unique equilibrium in which both railroads offer the same through rate $p = p_1 + p_2$.

Proof: I first show there exists an equilibrium in which both railroads offer a through rate of $p = p_1 + p_2$. I then show that no other equilibrium exists.

Suppose both railroads offer the through rate $p = p_1 + p_2$. If railroad i makes the through rate sale, it earns

$$(p - p_j - c_i)Q(p).$$

Because $p = p_1 + p_2$, this profit is the same as railroad i would collect by raising price and ceding the sale to railroad j , i.e.,

$$(p - p_j - c_i)Q(p) = (p_i - c_i)Q(p).$$

Therefore, railroad i does not gain by raising price. If railroad i is the one making the through rate sale, it earns

$$(p_i - c_i)Q(p).$$

By cutting its through rate offer by $\epsilon > 0$, railroad i can win the through rate competition and earn

$$\begin{aligned} (p - \epsilon - p_j - c_i)Q(p - \epsilon) &< (p - p_j - c_i)Q(p) && \text{(By Assumptions 2 and 3)} \\ &= (p_i - c_i)Q(p) && \text{(By definition of } p) \end{aligned}$$

Therefore, railroad i does not gain from cutting price to win the through rate competition. It follows that an equilibrium exists in which both railroads offer the through rate $p = p_1 + p_2$.

Next, I show that there is no equilibrium in which at least one of the two railroads offer a through rate that is different from $p = p_1 + p_2$:

- **Case 1:** Railroad i offers $\tilde{p} < p$ and railroad j offers p .

In this case, railroad i wins the through rate competition and earns a profit of

$$(\tilde{p} - p_j - c_i)Q(\tilde{p}).$$

However, by raising its price above p , railroad i can cede the through rate sale to railroad j and its profit becomes

$$\begin{aligned} (p_i - c_i)Q(p) &= (p - p_j - c_i)Q(p) \\ &> (\tilde{p} - p_j - c_i)Q(\tilde{p}) \end{aligned}$$

where the inequality follows from Assumptions 2 and 3. This is not an equilibrium.

- **Case 2:** Railroad i offers $\tilde{p} > p$ and railroad j offers p .

If $\tilde{p} \geq p^*(p_i + c_j) > p$, then, by the definition of $p^*(p_i + c_j)$ and Assumption 3, railroad j can increase its profit to the unconstrained optimal level by raising its through rate from p to $p^*(p_i + c_j) > p$.

On the other hand, if $p^*(p_i + c_j) > \tilde{p} > p$, then, by Assumptions 2 and 3, railroad j can also increase its profit by raising its through rate from p and to $\tilde{p} - \epsilon$ for any $\epsilon > 0$ such that $\tilde{p} - \epsilon > p$. Therefore, this is not an equilibrium.

- **Case 3:** Railroad i offers $\tilde{p} > p$ and railroad j offers $\hat{p} > p$.

Without loss of generality, suppose that $\tilde{p} \geq \hat{p}$. In this case, railroad i loses the through rate competition and earns a profit of

$$(p_i - c_i)Q(\hat{p}).$$

Let $\alpha = \hat{p} - p > 0$ and consider railroad i 's profit if it deviates from $\tilde{p}$ and undercuts railroad j by offering a through rate $\hat{p} - \epsilon$ for some $\epsilon > 0$. Railroad i 's profit is now

$$\begin{aligned} (\hat{p} - \epsilon - p_j - c_i)Q(\hat{p} - \epsilon) &= (\alpha + p - \epsilon - p_j - c_i)Q(\hat{p} - \epsilon) \\ &= (p_i - c_i + \alpha - \epsilon)Q(\hat{p} - \epsilon) \end{aligned}$$

As $\epsilon \rightarrow 0$, this converges to $(p_i - c_i + \alpha)Q(\hat{p}) > (p_i - c_i)Q(\hat{p})$. This means that there exists some sufficiently small $\epsilon > 0$ such that railroad i can earn higher profit by offering the through rate $\hat{p} - \epsilon$. Therefore, this is not an equilibrium.

- **Case 4:** Railroad i offers $\tilde{p} < p$ and railroad j offers $\hat{p} < p$.

Without loss of generality, suppose that $\tilde{p} \leq \hat{p}$. In this case, railroad i wins the through rate competition and earns a profit of

$$(\tilde{p} - p_j - c_i)Q(\tilde{p}).$$

However, by raising its price above $\hat{p}$, railroad i can cede the through rate sale to railroad j and its profit becomes

$$\begin{aligned} (p_i - c_i)Q(\hat{p}) &= (p - p_j - c_i)Q(\hat{p}) \\ &\geq (p - p_j - c_i)Q(p) \\ &> (\tilde{p} - p_j - c_i)Q(\tilde{p}) \end{aligned}$$

where the first inequality follows because $\hat{p} < p$ and the second inequality follows from Assumptions 2 and 3. Therefore, this cannot be an equilibrium.

- **Case 5:** Railroad i offers $\tilde{p} < p$ and railroad j offers $\hat{p} > p$.

Since $\tilde{p} < p < \hat{p}$, railroad i wins the through-rate competition and it earns

$$(\tilde{p} - p_j - c_i)Q(\tilde{p}).$$

Consider railroad i 's incentive to raise its through rate to $\tilde{p} + \epsilon$ for some $\epsilon > 0$ such that $\tilde{p} + \epsilon < p$. By Assumption 3, we have

$$\tilde{p} < \tilde{p} + \epsilon < p \leq p^*(p_j + c_i).$$

Therefore, by Assumption 2,

$$(\tilde{p} - p_j - c_i)Q(\tilde{p}) < (\tilde{p} + \epsilon - p_j - c_i)Q(\tilde{p} + \epsilon).$$

That is, railroad i has an incentive raise its through rate above $\tilde{p}$ and therefore this is not an equilibrium.

I have shown that under Assumptions 1, 2, and 3, there is a unique equilibrium in which both merged railroads offer the through rate $p = p_1 + p_2$. ■

Under different assumptions, other equilibria can exist when there are two CGP programs. For example, different railroad's costs and CGP rates may lead to one railroad's through rate being unconstrained by its CGP rate given the CGP rate of the other railroad. I characterize the equilibrium in this circumstance below.

Assumption 4: $p^*(p_j + c_i) < p_1 + p_2$ for at least one of $i = 1, 2, j \neq i$.

Proposition: Under Assumptions 1, 2, and 4, there are no equilibria in which both railroads offer the same through rate with $p = p_1 + p_2$. There exists an equilibrium in which railroad i offers $p^*(p_j + c_i)$ and railroad j offers $p' > p^*(p_j + c_i)$.

Proof: Without loss of generality, suppose $p^*(p_j + c_i) \leq p^*(p_i + c_j)$. By Assumption 4, $p^*(p_j + c_i) < p_1 + p_2$, but $p^*(p_i + c_j)$ may or may not be lower than $p_1 + p_2$.

Suppose to the contrary that there is an equilibrium in which both railroads offer the through rate $p = p_1 + p_2$. In this equilibrium, railroad i earns

$$(p_i - c_i)Q(p).$$

But railroad i can undercut railroad j by $\epsilon > 0$ and win the through rate competition, in which case it earns

$$\begin{aligned} (p - \epsilon - p_j - c_i)Q(p - \epsilon) &> (p - p_j - c_i)Q(p) \quad (\text{By Assumptions 2 and 4}) \\ &= (p_i - c_i)Q(p), \quad (\text{By definition of } p) \end{aligned}$$

This contradicts the assumption that an equilibrium exists in which both railroads offer the through rate $p = p_1 + p_2$.

I now show that there can exist an equilibrium in which railroad i offers the through rate $p^*(p_j + c_i)$ and railroad j offers the through rate $p' = \infty$. First, observe that if railroad j offers the through rate $p' = \infty$, then railroad i can always win the through rate competition by offering any through rate $\tilde{p} < \infty$. By definition, $\tilde{p} = p^*(p_j + c_i)$ maximizes railroad i 's profit and so railroad i has no incentive to deviate from the through rate $p^*(p_j + c_i)$.

Second, consider whether j has an incentive to deviate. If railroad i offers the through rate $p^*(p_j + c_i)$ and railroad j offers the through rate $p' = \infty$, then railroad j loses the through rate competition and it earns

$$(p_j - c_j)Q(p^*(p_j + c_i)).$$

For railroad j to have a chance to earn a higher profit, it needs to undercut railroad i by offering, say, $p^*(p_j + c_i) - \epsilon$ for some $\epsilon > 0$. In this case, railroad j 's profit is

$$(p^*(p_j + c_i) - \epsilon - p_i - c_j)Q(p^*(p_j + c_i) - \epsilon).$$

Because $p^*(p_j + c_i) - \epsilon < p^*(p_j + c_i) \leq p^*(p_i + c_j)$, by Assumption 2, this profit is less than or equal to

$$(p^*(p_j + c_i) - p_i - c_j)Q(p^*(p_j + c_i)).$$

By Assumption 4,

$$\begin{aligned} (p^*(p_j + c_i) - p_i - c_j)Q(p^*(p_j + c_i)) &< (p_i + p_j - p_i - c_j)Q(p^*(p_j + c_i)) \\ &= (p_j - c_j)Q(p^*(p_j + c_i)). \end{aligned}$$

That is, any such deviation would lead to a lower profit for railroad j . This establishes that there is an equilibrium in which railroad i offers a through rate $p^*(p_j + c_i)$ and railroad j offers a through rate $p' = \infty$.

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AREAS OF EXPERTISE

- Industrial organization economics; Antitrust and Competition economics
- Applied econometrics
- Economic and econometric analysis of horizontal and vertical mergers
- Economic and econometric analysis of antitrust litigation topics, including: Class certification, damages, and liability issues in cases involving price fixing, exclusive dealing, monopolization, bundling, price discrimination, and exclusionary practices

INDUSTRIES OF EXPERTISE AND CASE HIGHLIGHTS

- Particular expertise in industries including: Wireline and wireless telecommunications; Digital advertising; Internet and other high technology markets; Media; Sports; Airlines; Railroads; Consumer Packaged Goods; Distribution services; Financial exchanges; Biotech; Healthcare; Hotels; Rental Cars; Insurance markets; Credit Cards; Energy markets; Retail
- Selected litigation highlights: CCB v. Rogers/Shaw; FTC v. Tempur Sealy/Mattress Firm; FTC v. Sysco/US Foods; DOJ and Private Google AdTech Litigation; DOJ v. Google Search Litigation; Various matters against Reynolds & Reynolds and CDK Global; 10X v. Vizgen; Various litigation matters involving Acthar; Rail Fuel Surcharge Litigation; NFL Sunday Ticket Antitrust Litigation; PGA Tour v. LIV Golf; Viamedia v. Comcast; Capacitors Price Fixing Jury Trial; Verizon-Tracfone Hearings; Sprint-T-Mobile Hearings; DOJ v. AT&T/Time Warner; Determination of Cable Royalty Funds
- Research published in leading peer-reviewed journals including *The American Economic Review*, *Economics Letters*, *The Rand Journal of Economics*, *The Journal of Law and Economics*, *The Journal of Industrial Economics*, *The International Journal of Industrial Organization*, *The Review of Industrial Organization*, *The Journal of Competition Law and Economics*, and *The Review of Network Economics*
- Co-author of the chapter on Econometrics and Regression Analysis in the ABA Treatise, *Proving Economic Damages: Legal and Economic Issues*, 2017

EDUCATION

- Ph.D., Economics, Stanford University, June 2001
- M.S., Economics, University of Wisconsin-Madison, August 1992
- B.A., Economics, Illinois Wesleyan University, Summa Cum Laude (4.0), May 1991

EMPLOYMENT HISTORY

Econic Partners

Founding Partner: April 2025 – Present

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President: December 2023 – March 2025

Head of North American Antitrust Practice: January 2016 – December 2023

Executive Vice President: April 2013 – December 2015

Senior Vice President: January 2009 – March 2013

Vice President: January 2008 – December 2008

Economist: January 2006 – December 2007

Kellogg School of Management, Northwestern University

Associate Professor of Management and Strategy: 2007 – 2008

Assistant Professor of Management and Strategy: 2000 – 2006

State Farm Insurance

Research Administrator: August 1992 – August 1995

RECENT PROFESSIONAL RECOGNITIONS

Global Competition Review, *Economist of the Year*, 2023

Who's Who Legal, *Global Elite Thought Leader in Competition*: 2022, 2023, 2024, 2025, 2026

Who's Who Legal, *Recommended Expert Witness in Arbitration*: 2024, 2026

LIVE TESTIMONIAL EXPERIENCE

Live testimony in front of arbitration panel in confidential arbitration regarding wholesale roaming rate for wireless telecommunications: October 21, 2025.

Testimony as Economic Expert on behalf of Hattie Mitchell et al., In the Matter of *Arrieona Beal v. Hattie Mitchell et al. v. NL Industries, Inc. and John Does 1-50*, In the Circuit Court of Milwaukee County State of Wisconsin, Case No. 2021-CV-003276, Deposition: July 22, 2025.

Testimony as Economic Expert on behalf of Google, LLC, In the Matter of *United States of America et al. v. Google LLC*, In the United States District Court for the District of Columbia, CV No. 20-3010, Live Trial Testimony at Remedies Hearing: May 2, 2025.

Testimony as Economic Expert on behalf of Google, LLC, In the Matter of *United States of America et al. v. Google LLC* (Case No. 1:20-cv-03010-APM), and *State of Colorado et al. v. Google LLC* (Case No. 1-20-cv-03715-APM), In the United States District Court for the District of Columbia, Deposition: November 3, 2022; November 4, 2022; Live Trial Testimony: November 2, 2023; November 3, 2023; November 6, 2023; Deposition: April 8, 2025.

Testimony as Economic Expert on behalf of Google LLC, *In Re Google Digital Advertising Antitrust Litigation*, In the United States District Court for the Southern District of New York, Case No. 1:21-md-3010 (PKC), Deposition: March 31, 2025; April 1, 2025.

Testimony as Economic Expert on behalf of 10X Genomics, Inc., In the Matter of *10X Genomics, Inc. and Fellows of Harvard College v. Bruker Spatial Biology, Inc. et al.*, In the United States District Court for the District of Delaware, C.A. No. 22-261-MFK, Deposition: February 25, 2025.

Testimony as Economic Expert on behalf of Tempur Sealy International, Inc., In the Matter of *Federal Trade Commission v. Tempur Sealy International, Inc. and Mattress Firm Group Inc.*, In the United States District Court for the Southern District of Texas Houston Division, Case No. 4:241-CV-02508, Deposition: October 29, 2024; Live Trial Testimony: November 25, 2024.

Testimony as Economic Expert on behalf of 10X Genomics, Inc., In the Matter of *10X Genomics, Inc. and President and Fellows of Harvard College v. Vizgen, Inc.; Vizgen, Inc. v. 10X Genomics, Inc. and President and Fellows of Harvard College (Counterclaim)*, In the United States District Court for the District of Delaware, Civil Action No. 22-595-MFK, Deposition: October 23, 2024.

Testimony as Economic Expert on behalf of The Kroger Company and Albertsons Companies, Inc., In the Matter of the *State of Colorado ex rel. Philip J. Weiser, Attorney General v. The Kroger Co.; Albertsons Companies, Inc.; and C&S Wholesale Groceries, LLC*, In the District Court, City and County of Denver, Colorado, Case No. 24CV30459, Live Trial Testimony: October 17, 2024; October 18, 2024.

Testimony as Economic Expert on behalf of The Kroger Company and Albertsons Companies, Inc., In the Matter of the *State of Washington v. The Kroger Company*, In the United States Superior Court of Washington for King County, Case No. 24-200977-9 SEA, Deposition: August 20, 2024; Live Trial Testimony: October 7, 2024.

- Testimony as Economic Expert on behalf of Google LLC, In the Matter of *United States of America et al. v. Google, LLC*, In the United States District Court for the Eastern District of Virginia Alexandria Division, Case No. 1:23-cv-00108-LMB-JFA, Deposition: March 14, 2024; Live Trial Testimony: September 26, 2024.
- Testimony as Economic Expert on behalf of The Kroger Company and Albertsons Companies, Inc., In the Matter of *FTC et al. v. Kroger and Albertsons*, In the United States District Court District of Oregon Portland Division, Case No. 3:24-cv-00347-AN, Deposition: July 22, 2024; Economic Expert Tutorial: July 26, 2024; Live Trial Testimony: September 11, 2024.
- Testimony as Economic Expert on behalf of Johns Manville Corporation, In the Matter of *Chase Manufacturing, Inc. d/b/a Thermal Pipe Shields v. Johns Manville Corporation*, In the United States District Court for the District of Colorado, Civil Action No. 19-cv-00872-MEH, Live Trial Testimony: May 2, 2024.
- Testimony as Economic Expert on behalf of AT&T, Application of Pacific Bell Telephone Company d/b/a AT&T California (U1001) To Relinquish Its Eligible Telecommunications Carrier Designation, Before the Public Utilities Commission of the State of California, A.23-03-002, Rebuttal Testimony: January 19, 2024; Live Testimony at Evidentiary Hearing: April 9, 2024.
- Testimony as Economic Expert on behalf of Trinity, In the Matter of *Commonwealth of Virginia, Ex. rel. and Joshua Harman v. Trinity Industries, Inc. et al. and Trinity Highway Products, LLC*, In the Circuit Court for the City of Richmond, Case No. CL 13-698, Deposition: January 30, 2024.
- Testimony as Economic Expert on behalf of Authenticom, Inc., *In Re Dealer Management Systems Antitrust Litigation*, United States District Court for the Northern District of Illinois Eastern Division, MDL 2817, Case No. 1:18-CV-864, Deposition: January 16, 2020; January 17, 2020; January 19, 2024.
- Testimony as Economic Expert on behalf of AT&T, Application of Pacific Bell Telephone Company d/b/a AT&T California (U 1001 C) for Targeted Relief from Its Carrier of Last Resort Obligation and Certain Associated Tariff Obligations, Before the Public Utilities Commission of the State of California, A.23-03-003, Opening Testimony: December 19, 2023.
- Testimony as Economic Expert on behalf of Express Scripts, Inc., In the Matter of *Series 17-03-615, a designated series of MSP Recovery Claims, Series LLC et al. v. Express Scripts, Inc. et al.*, In the United States District Court for the Northern District of Illinois Western Division, Case No. 3:20-cv-50056, Deposition: December 7, 2023.
- Testimony as Economic Expert on behalf of IQVIA Holdings Inc. and Propel Media, Inc., In the Matter of *Federal Trade Commission v. IQVIA Holdings Inc. and Propel Media, Inc.*, In the United States District Court for the Southern District of New York, Case No. 1:23-cv-06188-ER, Deposition: November 9, 2023; Live Trial Testimony: November 30, 2023.

Testimony of as Economic Expert on behalf of Light & Wonder, Inc., In the Matter of an Arbitration between *Mohawk Gaming Enterprises, LLC, d/b/a Akwesasne Mohawk Casino Resort, on Behalf of Itself and All Others Similarly Situated and Light & Wonder, Inc., a Nevada Company, Formerly a Delaware Corporation, and LNW Gaming Inc., a Nevada Corporation*, American Arbitration Association, Case No. 01-20-0015-6196, and *In Re Automatic Card Shufflers Litigation*, In the United States District Court Northern District of Illinois Eastern Division, Case No. 1:21-cv-1798, Deposition: November 13, 2023.

Testimony as Economic Expert on behalf of BNSF Railway Company et al., *In Re Rail Freight Fuel Surcharge Antitrust Litigation (No. II)*, In the United States District Court for the District of Columbia, MDL Docket No. 2925, Misc. No. 20-8 (BAH), Deposition: October 23, 2023; October 24, 2023.

Testimony as Economic Expert on behalf of Express Scripts Inc, In the Matter of *City of Rockford v. Mallinckrodt ARD, Inc. et al.* (Case No. 3:17-cv-50107), and *Series 17-03-615, a designated series of MSP Recovery Claims, Series LLC et al. v. Express Scripts Inc. et al.* (Case No. 3:20-cv-50056), In the United States District Court for the Northern District of Illinois Western Division, Deposition: November 18, 2022; August 4, 2023.

Testimony as Economic Expert on behalf of Verra Mobility Corp., In the Matter of *Pluspass, Inc. v. Verra Mobility Corp. et al.*, In the United States District Court Central District of California – Western Division, No. 2:20-cv-10078-FWS-SK, Deposition: May 24, 2023.

Testimony as Economic Expert on behalf of United Chemi-Con, In the Matter of *Avnet Incorporated v. Hitachi Chemical Company (In Re Capacitors Antitrust Litigation*, No. 17-mdl-2801-JD), United States District Court Northern District of California, No. 17-cv-7046-JD, Live Trial Testimony: May 18, 2023.

Testimony as Economic Expert on behalf of Rogers Communications Inc., In the Matter of the *Competition Act*, R.S.C. 1985, c. C-34 as amended; and In the Matter of the proposed acquisition by Rogers Communications Inc. of Shaw Communications Inc.; and In the Matter of an application by the Commissioner of Competition for one or more orders pursuant to section 92 of the *Competition Act*, Between the Commissioner of Competition and Rogers Communications Inc. and Shaw Communications Inc., the Competition Tribunal, CT-2022-002, Live Trial Testimony: November 30, 2022; December 1, 2022.

Testimony as Economic Expert on behalf of National Football League, *In Re National Football League Sunday Ticket Antitrust Litigation*, In the United States District Court Central District of California, Case No. ML 15-02668-PSG (JEMx), Deposition: November 23, 2022.

Testimony as Economic Expert on behalf of American Airlines, Inc., In the Matter of *United States of America et al. v. American Airlines Group Inc. and JetBlue Airways Corporation*, In the United States District Court for the District of Massachusetts, Civil Action No. 1:21-cv-11558-LTS, Deposition: August 22, 2022; Live Trial Testimony: October 17, 2022; October 24, 2022.

- Testimony as Economic Expert on behalf of Comcast Corporation, In the Matter of *Viamedia, Inc. v. Comcast Corporation and Comcast Spotlight, LP*, In the United States District Court Northern District of Illinois Eastern Division, Case No. 16-cv-5486, Deposition: January 5, 2018; October 21, 2022.
- Testimony as Economic Expert on behalf of KOA Corporation and KOA Speer Electronics, Inc., In the Matter between *Sean Allott and Panasonic Corporation et al.*, In the Ontario Superior Court of Justice, Court File No. 1899-2015 CP, Deposition: August 16, 2022.
- Testimony as Economic Expert on behalf of Arconic, Inc. et al., In the Matter of *Arconic, Corp., and Howmet Aerospace, Inc. v. Novelis, Inc., and Novelis, Corp.*, United States District Court for the Western District of Pennsylvania, Case No. 2:17-cv-014340-JFC, Deposition: April 29, 2022.
- Testimony as Economic Expert on behalf of Norfolk Southern Railway Corporation, “Reciprocal Switching,” In Front of the Surface Transportation Board, Docket No. EP 711 (Sub-No. 1), Live Testimony: March 16, 2022.
- Live testimony in front of arbitration panel in confidential arbitration regarding wholesale roaming rate for wireless telecommunications: December 13, 2021; December 14, 2021.
- Testimony as Economic Expert on behalf of Nippon Chemi-Con and United Chemi-Con, *In Re Capacitors Antitrust Litigation*, No. C 14-3264-JD, and *In Re Capacitors Antitrust Litigation (No. III)*, No. MD 17-2801 JD, United States District Court for the Northern District of California Division, No. C 14-3264-JD, Deposition: March 14, 2020; Live Jury Trial Testimony: December 8, 2021.
- Testimony as Economic Expert on behalf of Norfolk Southern Railway Company, *In Re Rail Freight Fuel Surcharge Antitrust Litigation*, In the United States District Court for the District of Columbia, MDL No. 1869, Case No. 07-0489 (PLF/GMH), Deposition: November 18, 2021.
- Testimony as Economic Expert on behalf of JPMorgan, Goldman Sachs and Glencore, *In Re Aluminum Warehousing Antitrust Litigation*, MDL 2481, In the United States District Court Southern District of New York, No. 16-CV-5955, Deposition: November 5, 2021.
- Testimony as Economic Expert on behalf of Cox Automotive, Inc. et al., In the Matter between *Cox Automotive, Inc. et al. vs. The Reynolds and Reynolds Company*, American Arbitration Association, Case No. 01-19-0000-4548, Deposition: October 21, 2021.
- Testimony as Economic Expert on behalf of the Joint Defense Group, In the Matter between *Cygnus Electronics Corporation and Sean Allott and Panasonic Corporation et al.*, In the Ontario Superior Court of Justice, Court File No. 3795-14 CP, Deposition: September 29, 2021.
- Testimony as Economic Expert on behalf of American Express, In the Matter of *B & R Supermarket, Inc., d/b/a Milam’s Market et al., Individually and on Behalf of All Others Similarly Situated v. Visa, Inc. et al.*, In the United States District Court Eastern District of New York, Case No. 117-cv-02738-MKB-VMS, Deposition: August 6, 2021.

- Testimony as Economic Expert on behalf of Bio-Rad Laboratories, Inc., In the Matter of *Bio-Rad Laboratories, Inc. and President and Fellow of Harvard College v. 10X Genomics, Inc., and 10X Genomics, Inc. v. Bio-Rad Labs, Inc. and President and Fellow of Harvard College as Counterclaimants*, In the United States District Court for the District of Massachusetts, Civil Action No. 1:19-cv-12533-wgy, Deposition: June 1, 2021.
- Testimony as Economic Expert on behalf of Joint Applicants, In the Matter of *TracFone Wireless, Inc. (U4321C), América Móvil, S.A.B. de C.V. and Verizon Communications, Inc. for Approval of Transfer of Control over TracFone Wireless, Inc.*, Public Utilities Commission of the State of California, Application 20-11-001, Opening Testimony: March 12, 2021; Rebuttal Testimony: April 9, 2021; Live Trial Testimony: May 5, 2021; Supplemental Testimony: May 28, 2021.
- Testimony as Economic Expert on behalf of United Airlines, *In Re Domestic Airline Travel Litigation*, United States District Court for the District of Columbia MDL 1404 (CKK), Deposition: October 20, 2020.
- Testimony as Economic Expert on behalf of Peabody Energy Corporation and Arch Coal, Inc., In the Matter of *Federal Trade Commission v. Peabody Energy Corporation and Arch Coal, Inc.*, In the United States District Court for the Eastern District of Missouri, Civil Action No. 4-20-cv-000317-SEP, Deposition: June 29, 2020; Live Trial Testimony: July 24, 2020.
- Testimony as Economic Expert on behalf of Trinity, In the Matter of *Jackson County, Missouri, Individually and on behalf of a class of others similarly situated, v. Trinity Industries, Inc., and Trinity Highway Products, LLC*, In the Circuit Court of Jackson County, Missouri at Independence, Case No. 1516-CV23684, Stage 1 Testimony: May 24, 2017; Stage 2 Deposition: November 14, 2019.
- Testimony as Economic Expert on behalf of Joint Applicants, In the Proposed Merger of T-Mobile US, Inc. and Sprint Communications, Inc., Public Utilities Commission, State of California, San Francisco, California, Docket Nos. A.18-07-011 and A.18-07-012, Direct Rebuttal Testimony: January 29, 2019; Live Testimony: February 7, 2019; Direct Supplemental Testimony: November 7, 2019.
- Testimony as Economic Expert on behalf of Turner Network Sales, Inc., In the Matter of *DISH Network L.L.C. v. Turner Network Sales, Inc.*, JAMS Arbitration No. 1100103066, Deposition: August 9, 2019; Live Trial Testimony: August 29, 2019.
- Testimony of Economic Expert on behalf of Marriott Vacations Worldwide Corporation et al., In the Matter of *RCHFU, LLC et al. v. Marriott Vacations Worldwide Corporation et al.*, In the United States District Court for the Eastern District of Colorado, Civil Action No. 1:16-cv-01301-PAB-GPG, Deposition: July 12, 2019.
- Testimony as Economic Expert on behalf of Oscar Insurance Company of Florida, In the Matter of *Oscar Insurance Company of Florida v. Blue Cross and Blue Shield of Florida, Inc., d/b/a/ Florida Blue; Health Options Inc., d/b/a/ Florida Blue HMO; and Florida Health Care Plan Inc., d/b/a/ Florida Health Care Plans*, In the United States District Court Middle District of Florida Orlando Division, Case No. 6:18-cv-01944, Live Preliminary Injunction Hearing Testimony: January 23, 2019.

- Testimony as Economic Expert on behalf of Wilh. Wilhelmsen Holding ASA, In the Matter of the *Federal Trade Commission v. Wilh. Wilhelmsen Holding ASA Wilhelmsen Maritime Services As Resolute Fund II, L.P. Drew Marine Intermediate II B.V. and Drew Marine Group, Inc.*, In the United States District Court for the District of Columbia, No. 1:18-cv-00414-TSC, Deposition: May 24, 2018; Live Trial Testimony: June 12, 2018; June 13, 2018.
- Testimony as Economic Expert on behalf of Joint Sports Claimants, In the Matter of *Determination of Cable Royalty Funds*, United States Copyright Royalty Judges in the Library of Congress, Docket No. 14-CRB-0010-CD (2010-2013), Live Testimony: March 12, 2018.
- Testimony as Economic Expert on behalf of Energy Solutions, Inc., In the Matter of the *United States of America v. Energy Solutions, Inc., Rockwell Holdco, Inc., Andrews County Holdings, Inc., and Waste Control Specialists, LLC*, In the United States District Court for the District of Delaware, Civil Action No. 16-cv-01056-SLR, Deposition: April 17, 2017; Live Trial Testimony: May 2, 2017; May 3, 2017.
- Testimony as Economic Expert on behalf of Facebook, Inc., In the Matter of *Social Ranger, LLC v. Facebook, Inc.*, In the District Court of Delaware, C.A. No. 14-1525-LPS, Deposition: March 6, 2017.
- Testimony as Economic Expert on behalf of Regal Entertainment Group, In the Matter of *iPic – Gold Class Entertainment, LLC et al., v. Regal Entertainment Group, AMC Entertainment Holdings, Inc. et al.*, In the District Court of Harris County, Texas, 234th Judicial District, No. 2015-68745, Deposition: January 12, 2016; February 15, 2017; Live Trial Testimony: January 21, 2016.
- Testimony as Economic Expert on behalf of Anthem Inc., In the Matter of the *United States of America et al. v. Anthem Inc. and Cigna Corp.*, In the District Court of the District of Columbia, No. 16-cv-01493 (ABJ), Deposition: November 9, 2016; Phase 1 Live Trial Testimony: December 1, 2016; December 2, 2016; Phase 2 Live Trial Testimony: December 22, 2016.
- Testimony of Dr. Mark A. Israel, In the Matter of *Distribution of Cable Royalty Funds*, Before the Copyright Royalty Judges, Washington, D.C., No. 14-CRB-0010-CD, September 15, 2017; Written Direct Testimony: December 22, 2016.
- Testimony as Economic Expert on behalf of Defendants, In the Matter of *Darren Ewert v. Nippon Yusen Kabushiki Kaisha et al.*, Supreme Court of British Columbia, No. S-134895, Deposition: September 14, 2016.
- Testimony in Commercial Arbitration on Issues Related to Mobile Wireless Competition, New York, NY, April 12, 2016.
- Testimony as Economic Expert on behalf of Federal Trade Commission, In the Matter of *Federal Trade Commission et al. v. Sysco Corporation and USF Holding Corp.*, Civil Action No. 15-cv-00256 (APM), Deposition: April 28, 2015; Live Trial Testimony: May 7, 2015; May 8, 2015; May 14, 2015.
- Appearance before California Public Utility Commission, Public Hearings on Comcast/Time Warner Merger, Los Angeles, April 2015.

Appearances in Federal Communications Commission, Economists Panels:

- Comcast/Time Warner, January 2015
- AT&T/T-Mobile, July 2011
- Comcast/NBCUniversal, August 2010

EXPERT REPORTS, AFFIDAVITS, AND DECLARATIONS

Declaration of Mark A. Israel in Support of Defendants' Response to Show Cause and Opposition to Plaintiffs' Opposition for Preliminary Injunction, *In Re Nexstar-TENGA Merger Litigation*, In the United States District Court for the Eastern Division of California, Sacramento Division, Case No. 2:26-cv-00976-TLN-CKD, April 1, 2026.

Declarations of Mark A. Israel in Support of Defendants' Opposition to Plaintiffs' Motion for Temporary Restraining Order, In the Matters of *DirectTV, LLC v. Nexstar Media Group, Inc., and TENGA Inc.* (Case No. 2:26-cv-00976-TLN-CKD), and *State of California et al. v. Nexstar Media Group, Inc., and TENGA Inc.* (Case No. 2:26-cv-00978-TLN-CKD), In the United States District Court for the Eastern District of California, Sacramento Division, March 24, 2026.

Affidavits in confidential arbitration regarding wholesale roaming rate for wireless telecommunications, Initial Affidavit: May 15, 2025; Reply Affidavit: September 29, 2025.

Expert Report of Mark Israel, Ph.D., In the Matter of *Arrieona Beal v. Hattie Mitchell et al. v. NL Industries, Inc. and John Does 1-50*, In the Circuit Court of Milwaukee County State of Wisconsin, Case No. 2021-CV-003276, April 14, 2025.

Expert Reports of Mark A. Israel, In the Matters of *United States of America et al. v. Google LLC* (Case No. 1:20-cv-03010-APM), and *State of Colorado et al. v. Google LLC* (Case No. 1:20-cv-03715-APM), In the United States District Court for the District of Columbia, Initial Report: June 4, 2022; Rebuttal Report: August 5, 2022; Reply Report: September 23, 2022; March 14, 2025.

Expert Reports of Mark A. Israel, Ph.D., In the Matter of *Twin Bridges Waste and Recycling, LLC and Consolidated Waste Services, LLC v. County Waste and Recycling Service, Inc. et al.*, In the United States District Court Northern District of New York, Case No. 1:21-cv-0263, Initial Report: January 26, 2025; Amended Report: February 14, 2025.

Expert Report of Mark A. Israel, Ph.D., In the Matter of *10X Genomics, Inc. and President and Fellows of Harvard College v. Bruker Spatial Biology, Inc., Bruker Nano, Inc., and Bruker Corp.*, In the United States District Court for the District of Delaware, Case No. 22-261-MFK, December 20, 2024.

Expert Reports of Mark A. Israel, *In Re Google Digital Advertising Antitrust Litigation*, In the United States District Court for the Southern District of New York, Case No. 1:21-md-3010 (PKC), Initial Report: December 13, 2024; Supplemental Report: December 13, 2024.

- Supplemental Pretrial Expert Reports of Mark A. Israel, Ph.D., In the Matter of *Loop, LLC, d/b/a AutoLoop v. CDK Global, LLC*, In the United States District Court for the Western District of Wisconsin, Case No. 3:24-cv-00571-JDP, Initial Report: November 8, 2024; Reply Report: November 27, 2024.
- Declarations of Mark A. Israel on behalf of AT&T, Pacific Bell Telephone Company d/b/a AT&T, California's (U 1001 C) Opening Comments, Order Instituting Rulemaking Proceeding to Consider Changes to the Commission's Carrier of Last Resort Rules, Before the Public Utilities Commission of the State of California, Case No. R.24-06-012, September 30, 2024; Reply Comments: October 30, 2024.
- Expert Report of Mark A. Israel, Ph.D., In the Matter of *Federal Trade Commission v. Tempur Sealy International, Inc. and Mattress Firm Group Inc.*, In the United States District Court for the Southern District of Texas Houston Division, Case No. 4:241-CV-02508, October 14, 2024.
- Expert Report of Mark A. Israel, Ph.D., In the Matter of *10X Genomics, Inc. and President and Fellows of Harvard College v. Vizgen, Inc.; Vizgen, Inc. v. 10X Genomics, Inc. and President and Fellows of Harvard College (Counterclaim)*, In the United States District Court for the District of Delaware, Civil Action No. 22-595-MFK, September 25, 2024.
- Expert Report of Dr. Mark A. Israel, In the Matter of *State of Washington v. The Kroger Co. et al.*, In the State of Washington King County Superior Court, Case No. 24-2-00977-9 SEA, July 12, 2024.
- Expert Report of Dr. Mark A. Israel, In the Matter of the *State of Colorado ex rel. Philip J. Weiser, Attorney General v. The Kroger Co.; Albertsons Companies, Inc.; and C&S Wholesale Groceries, LLC*, In the District Court, City and County of Denver, Colorado, Case No. 24CV30459, July 8, 2024.
- Expert Report of Dr. Mark A. Israel, In the Matter of *The Kroger Company and Albertsons Companies, Inc.*, In the United States of America Federal Trade Commission Office of Administrative Law Judges, Docket No. 9428, July 5, 2024.
- Expert Report of Dr. Mark A. Israel, In the Matter of *Federal Trade Commission et al. v. The Kroger Company and Albertsons Companies, Inc.*, In the United States District Court District of Oregon Portland Division, Case No. 3:24-cv-00347-AN, July 5, 2024.
- Expert Reports of Mark A. Israel, Ph.D., *In Re Dealer Management Systems Antitrust Litigation*, United States District Court for the Northern District of Illinois Eastern Division, MDL 2817, No. 1:18-CV-864, Initial Report: August 26, 2019; Reply Report: December 19, 2019; Supplemental Report: November 21, 2023; Supplemental Reply Report: April 11, 2024; Supplemental Sur-Reply Expert Report: June 10, 2024.
- Expert Reports of Mark Israel, In the Matter of *Chase Manufacturing, Inc. d/b/a Thermal Pipe Shields v. Johns Manville Corporation*, In the United States District Court for the District of Colorado, Civil Action No. 1:19-cv-00872-MEH, Initial Report: November 20, 2021; Updated Report: April 16, 2024.
- Expert Report of Mark A. Israel, In the Matter of *United States of America et al. v. Google LLC*, In the United States District Court for the Eastern District of Virginia, Case No. 1:23-cv-00108 (LMB/JFA), January 23, 2024.

Affidavit in confidential arbitration regarding wholesale roaming rate for wireless telecommunications, Initial Affidavit: January 15, 2024.

Declaration of Mark Israel, Bryan Keating, and Allan Shampine, In the Matter of *Safeguarding and Securing the Open Internet*, Before the Federal Communications Commission, WC Docket No. 23-320, December 14, 2023.

Expert Report(s) of Mark A. Israel, Ph.D., *In Re Rail Freight Fuel Surcharge Antitrust Litigation (No. II)*, In the United States District Court for the District of Columbia, MDL Docket No. 2925, Misc. No. 20-8 (BAH), Initial Report: August 15, 2023; Supplemental Report: December 13, 2023.

Reports of Dr. Mark A. Israel, In the Matter between *Topher's Beard Company and Olin Corporation et al.*, Canadian Federal Court Proposed Class Proceeding, Court File No.: T-1365-20, Initial Report: May 23, 2023; Sur-Reply Report: December 1, 2023.

Expert Reports of Mark A. Israel, In the Matter of *Commonwealth of Virginia, Ex. rel. and Joshua M. Harman v. Trinity Industries, Inc., and Trinity Highway Products, LLC*, In the Court of Circuit Court for the City of Richmond, Case No. CL 13-698, Initial Report: October 12, 2023; Supplemental Report: November 15, 2023.

Expert Report of Mark A. Israel, In the Matter of *Series 17-03-615, a designated series of MSP Recovery Claims, Series LLC et al. v. Express Scripts, Inc. et al.*, In the United States District Court for the Northern District of Illinois Western Division, Case No. 3:20-cv-50056-IDJ-LAJ, November 13, 2023.

Submission of Mark A. Israel and Bryan G. M. Keating, “An Economic Analysis of TTC Wireless Access,” In the Matter of *Conditions of License relating to the Provision of Services within the Toronto Transit Commission (TTC) Subway System* and In the Matter of *Arbitration Rules and Procedures for Provision of Service within the Toronto Transit Commission (TTC) Subway System*, Between Telus Communications Inc. and Bell Mobility Inc. and Rogers Communications Inc., November 10, 2023.

Verified Statement of Mark A. Israel, Ph.D., “Reciprocal Switching for Inadequate Rail Service,” Surface Transportation Board, Docket No. EP 711 (Sub-No. 2), November 6, 2023.

Expert Report of Mark A. Israel, Ph.D., In the Matter of *Federal Trade Commission v. IQVIA Holdings Inc. and Propel Media, Inc.*, In the United States District Court for the Southern District of New York, Civil Action No. 1:23-cv-06188-ER, October 25, 2023.

Expert Report of Mark A. Israel, Ph.D., *In Re Automatic Card Shufflers Litigation*, In the United States District Court for the Northern District of Illinois Eastern Division, Case No. 1:21-CV-01798, August 20, 2023.

Expert Reports of Mark A. Israel, Ph.D., In the Matter of *City of Rockford, on behalf of itself and all others similarly situated v. Mallinckrodt ARD, Inc. formerly known as Questcor Pharmaceuticals, Inc. et al.*, In the United States District Court for the Northern District of Illinois Western Division, Case No. 3:17-cv-50107, Initial Report: October 17, 2022; Reply Report: July 10, 2023.

- Submissions in confidential arbitration regarding MVNO service for wireless telecommunications, Initial Submission: May 12, 2023; Response Submission: May 29, 2023.
- Expert Report of Mark A. Israel, Ph.D., In the Matter of *Pluspass, Inc. v. Verra Mobility Corp. et al.*, In the United States District Court Central District of California – Western Division, No. 2:20-cv-10078-FWS-SK, May 10, 2023.
- Declarations of Mark A. Israel on behalf of AT&T, Application of Pacific Bell Telephone Company d/b/a AT&T California (U 1001 C) for Targeted Relief from Its Carrier of Last Resort Obligation and Certain Associated Tariff Obligations, Before the Public Utilities Commission of the State of California, A.23-03-003, Declaration: March 3, 2023; Reply Declaration: April 17, 2023; Amended Declaration: May 17, 2023.
- Expert Report of Mark A. Israel, Ph.D., In the Matter of *TCS John Huxley America, Inc.; TCS John Huxley Europe Limited; TCS John Huxley Asia Limited; and Taiwan Fulgent Enterprise Co., Ltd. Vs. Scientific Games Corporation; Bally Technologies, Inc., d/b/a SHFL Entertainment or Shuffle Master; and Bally Gaming, Inc., d/b/a Bally Technologies, f/k/a Bally Gaming and Systems, f/k/aa SHFL Entertainment, Inc., f/k/a Shuffle Master, Inc.*, In the United States District Court for the Northern District of Illinois Eastern Division, Case No. 1:19-CV-01846, April 14, 2023.
- Expert Report of Mark A. Israel, Ph.D., In the Matter of *Home Depot U.S.A., Inc. v. Lafarge North America Inc.*, In the United States District Court Eastern District of Pennsylvania, Case No. 2:18-cv-05305-MMB, March 21, 2023.
- Expert Report of Mark A. Israel, Ph.D., *In Re National Football League Sunday Ticket Antitrust Litigation*, In the United States District Court Central District of California, Case No. ML 15-02668-PSG (JEMx), November 4, 2022.
- Expert Reports of Mark A. Israel, In the Matter of the *Competition Act*, R.S.C. 1985, c. C-34; and In the Matter of the proposed acquisition by Rogers Communications Inc. of Shaw Communications Inc.; and In the Matter of an application by the Commissioner of Competition for one or more orders pursuant to section 92 of the *Competition Act*, Between Commissioner of Competition and Rogers Communications Inc. and Shaw Communications Inc. and the Attorney General of Alberta and Videotron Ltd., the Competition Tribunal, CT-2022-002, Initial Report: September 23, 2022; Reply Report: October 20, 2022.
- Reports of Dr. Mark A. Israel, In the Matter of *Viamedia, Inc. v. Comcast Corporation and Comcast Cable Communications Management, LLC*, In the United States District Court for the Northern District of Illinois Eastern Division, Case No. 16-cv-5486, Rebuttal Report: November 30, 2017; Errata Sheet for Rebuttal Report: January 4, 2018; Rebuttal Report: September 21, 2022.
- Expert Declaration of Mark Israel, In the Matter of *Phil Mickelson et al. v. PGA Tour, Inc.*, In the United States District Court for the Northern District of California San Jose Division, Civil Action No. 5:22-cv-04486-BLF, August 7, 2022.

- Expert Report of Mark A. Israel, Ph.D., In the Matter of *United States of America et al. v. American Airlines Group Inc. and JetBlue Airways Corporation*, In the United States District Court for the District of Massachusetts, Civil Action No. 1:21-cv-11558-LTS, July 11, 2022.
- Expert Reports of Mark A. Israel, Ph.D., *In Re Rail Freight Fuel Surcharge Antitrust Litigation*, In the United States District Court for the District of Columbia, MDL No. 1869, Case No. 07-489, Initial Report: April 15, 2021; Surrebuttal Report: May 10, 2022.
- Expert Reports of Mark A. Israel, Ph.D., In the Matter of *Arconic Inc. v. Novelis Inc., Novelis Corp.*, In the United States District Court for the Western District of Pennsylvania, No. 2:17-CV-01434, Initial Report: February 11, 2022; Reply Report: March 18, 2022.
- Verified Statement of Mark A. Israel, Ph.D., “Reciprocal Switching,” Surface Transportation Board, Docket No. EP 711 (Sub-No. 1), February 14, 2022.
- Expert Report of Mark A. Israel, In the Matter between *Sean Allott and Panasonic Corporation et al.*, In the Ontario Superior Court of Justice, Court File No. 1899-2015 CP, January 17, 2022.
- Expert Reports of Mark A. Israel, Ph.D., *In Re Aluminum Warehousing Antitrust Litigation*, In the United States District Court Southern District of New York, MDL No. 2481, Initial Report: September 17, 2021; Supplemental Declaration: January 14, 2022.
- Affidavits in confidential arbitration regarding wholesale roaming rate for wireless telecommunications, Initial Affidavit: August 23, 2021; Reply Affidavit: November 15, 2021.
- Expert Report of Mark A. Israel, Ph.D., In the Matter of *Cox Automotive, Inc. et al. v. The Reynolds and Reynolds Company*, American Arbitration Association, Case No. 01-19-0000-4548, June 25, 2021.
- Expert Report of Mark A. Israel, In the Matter of *Bio-Rad Laboratories, Inc. and President and Fellow of Harvard College v. 10X Genomics, Inc., and 10X Genomics, Inc. v. Bio-Rad Labs., Inc. and President and Fellow of Harvard College as Counterclaimants*, In the United States District Court for the District of Massachusetts, Civil Action No. 1:19-cv-12533-wgy, May 14, 2021.
- Expert Report of Mark A. Israel, In the Matter of *B & R Supermarket, Inc., d/b/a Milam’s Market, Grove Liquors LLC, Strouk Group LLC, d/b/a Monsieur Marcel, and Palero Food Corp. and Cagueyes Food Corp., d/b/a Fine Fare Supermarket v. Mastercard International Inc., Visa Inc., Visa U.S.A., Inc., Discover Financial Services, and American Express Company*, In the United States District Court for the Eastern District of New York, Case No. 17-CV-02738 (MKB) (JO), March 22, 2021.
- Expert Report of Dr. Mark A. Israel, In the Matter of *Joshua M. Harman Qui Tam v. Trinity Industries, Inc. et al.*, In the Commonwealth of Massachusetts, Superior Court Department, Civil Action No. 2014-02364-D, February 26, 2021.
- Verified Statement of Mark Israel, “Review of Commodity, Boxcar, and TOFC/COFC Exemptions,” Surface Transportation Board, Docket No. EP 704 (Sub-No. 1), January 29, 2021.

- Expert Report of Mark A. Israel, Ph.D., *In Re Comtech/Gilat Merger Litigation*, Court of Chancery of the State of Delaware, Consolidated C.A. No. 2020-0605-JRS, September 24, 2020.
- Declaration of Mark Israel and Allan Shampine, In the Matter of *AMC Networks Inc. v. AT&T Inc.*, Before the Federal Communications Commission, MB Docket No. 20-254, File No. CSR-8993, August 20, 2020.
- Expert Report of Mark A. Israel, In the Matter between *Ryan Kett and Mitsubishi Materials Corporation, Mitsubishi Cable Industries, Ltd., Mitsubishi Shindoh Co., Ltd., Mitsubishi Aluminum Co., Ltd., Tachibana Metal Mfg. Co., Ltd., and Diamet Corporation*, In the Supreme Court of British Columbia, Case No. VLC-S-S-1813758, July 15, 2020.
- Expert Reports of Mark A. Israel, Ph.D., In the Matter of *Federal Trade Commission v. Peabody Energy Corporation and Arch Coal, Inc.*, In the United States District Court for the Eastern District of Missouri, Civil Action No. 4-20-cv-000317-SEP, Initial Report: May 26, 2020; Reply Report: June 19, 2020.
- Expert Reports of Mark A. Israel, Ph.D., *In Re Domestic Airline Travel Antitrust Litigation*, United States District Court for the District of Columbia, MDL1404 (CKK), Initial Report: September 30, 2019; Rebuttal Report: November 14, 2019.
- Expert Reports of Mark A. Israel, In the Matter of *DISH Network L.L.C. v. Turner Network Sales, Inc.*, JAMS Arbitration No. 1100103066, Initial Report: July 23, 2019; Reply Report: August 2, 2019.
- Submission of Mark A. Israel, Maya Meidan, and Robert J. Calzaretta, Jr., “The Atlantic Joint Business Generates Substantial Consumer Benefits,” Competition and Markets Authority, United Kingdom, July 1, 2019.
- Submission of Philip Haile and Mark Israel, “Alternative Approaches to Airport Slot Allocation: Objectives and Challenges,” Department for Transport, United Kingdom, June 20, 2019.
- Submission of Mark A. Israel, Maya Meidan, and Robert J. Calzaretta, Jr., “The Atlantic Joint Business Has Not Harmed Competition on Nonstop Overlap Routes, Including Focus Routes,” Competition and Markets Authority, United Kingdom, June 14, 2019.
- Expert Reports of Mark A. Israel, In the Matter of *RCHFU, LLC et al. v. Marriott Vacations Worldwide Corporation et al.*, In the United States District Court for the District of Colorado, Civil Action No. 16-01301-PAB-GPG, Initial Report: December 28, 2018; Supplemental Rebuttal Report, June 14, 2019.
- Submission of Mark Israel, “The Fidelity/Stewart Merger Does Not Raise Competitive Concerns in the New York Title Insurance Industry,” Revised Section 1506 Application Regarding the Proposed Acquisition of Stewart Title Insurance Company by Fidelity National Financial, Inc., New York State Department of Financial Services, April 12, 2019.
- Second Report of Dr. Mark A. Israel, Between *UK Trucks Claim Limited and (1) – (5) Fiat Chrysler Automobiles NV and (1) – (4) MAN Truck & Bus AG & ORS*, In the Competition Appeal Tribunal, Case No. 1282/7/7/18, April 11, 2019.

- Expert Report of Mark A. Israel, In the Matter between *Ryan Kett, Erik Oun and Jim Wong and Kobe Steel, Ltd., Shinko Metal Products Co., Ltd., Shinko Aluminum Wire Co., Ltd., Shinko Wire Stainless Company, Ltd., Kobelco & Materials Copper Tube Co., and Nippon Koshuha Steel Co., Ltd.*, In the Supreme Court of British Columbia, Case No. S-1710805, March 28, 2019.
- Expert Report of Dr. Mark A. Israel, Between *Road Haulage Association and (1) – (10) MAN SE and Others and (1) Daimler AG, (2) Volvo Lastvagnar Aktiebolag*, In the Competition Appeal Tribunal, Case No. 1289/7/7/18, March 22, 2019.
- Submission of Robert J. Calzaretta, Jr., Mark A. Israel, and Maya Meidan, “Assessing the Effects of ATI and JV Overlaps on Nonstop Fares: An Event Study Approach,” submitted as part of a Supplement to Joint Motion to Amend Order 2010-7-8 for Approval of and Antitrust Immunity for Amended Joint Business Agreement, In the Application of American Airlines, Inc., British Airways PLC, OpenSkies SAS, Iberia Líneas Aéreas de España, S.A., Finnair OYJ, Aer Lingus Group DAC, Before the U.S. Department of Transportation, Washington, DC, Docket DOT-OST-2008-0252-, January 11, 2019.
- Declarations of Mark A. Israel, In the Matter of *Oscar Insurance Company of Florida v. Blue Cross and Blue Shield of Florida, Inc., d/b/a Florida Blue; Health Options Inc., d/b/a Florida Blue HMO; and Florida Health Care Plan Inc., d/b/a Florida Health Care Plans*, In the United States District Court Middle District of Florida Orlando Division, Case No. 6:18-cv-01944, Declaration: November 19, 2018; Supplemental Declaration: December 21, 2018.
- Reply Declaration of Mark Israel, Michael Katz, and Bryan Keating, In the Matter of Applications of T-Mobile US, Inc. and Sprint Corporation, Consolidated Applications for Consent to Transfer Control of Licenses and Authorizations, Federal Communications Commission, WT Docket No. 18-197, September 17, 2018.
- Expert Report of Gustavo Bamberger, Robert Calzaretta, and Mark Israel, In the Joint Application of Hawaiian Airlines, Inc. and Japan Airlines, Co., Ltd., Appendix 6 to “Joint Application for Approval of and Antitrust Immunity for Alliance Agreements,” Department of Transportation, Case No. DOT-OST-2018-0084, June 13, 2018.
- Expert Reports of Mark A. Israel, In the Matter between *Cygnus Electronics Corporation and Sean Allott and Panasonic Corporation et al.*, In the Ontario Superior Court of Justice, Court File No. 3795/14CP, Initial Report: November 17, 2017; Reply Report: February 23, 2018; Supplemental Report: May 22, 2018.
- Expert Report of Mark A. Israel, In the Matter of the *Federal Trade Commission v. Wilh. Wilhelmsen Holding ASA Wilhelmsen Maritime Services As Resolute Fund II, L.P. Drew Marine Intermediate II B.V. and Drew Marine Group, Inc.*, In the United States District Court for the District of Columbia, No. 1:18-cv-00414-TSC, May 11, 2018.
- Declaration of Mark A. Israel, In the Matter between *Robert Foster and Murray Davenport and Sears Canada Inc. et al.*, In the Ontario Superior Court of Justice, Court File No. 766-2010 CP, November 1, 2017.

- Expert Report of Mark Israel and Bryan Keating, “Economic Analysis of Dr. Evans’ Claims as They Relate to *Restoring Internet Freedom*,” Federal Communications Commission, WC Docket No. 17-108, October 31, 2017.
- Declaration of Mark A. Israel, Allan L. Shampine, and Thomas A. Stemwedel, In the Matter of *Restoring Internet Freedom*, Federal Communications Commission, WC Docket No. 17-108, July 17, 2017.
- Expert Report of Dr. Mark A. Israel, In the Matter of *St. Clair County, Illinois, and Macon County, Illinois, Individually and on behalf of all other counties in the State of Illinois, v. Trinity Industries, Inc. and Trinity Highway Products, LLC*, In the United States District Court for the Southern District of Illinois, Civil Action No.: 3:14-cv-1320, April 25, 2017.
- Expert Reports of Mark A. Israel, In the Matter of the *United States of America v. Energy Solutions, Inc., Rockwell Holdco, Inc., Andrews County Holdings, Inc., and Waste Control Specialists, LLC*, In the United States District Court for the District of Delaware, Civil Action No. 16-cv-01056-SLR, Initial Report: March 27, 2017; Rebuttal Report: April 10, 2017.
- Expert Report of Mark A. Israel, In the Matter of *Jackson County, Missouri, Individually and on behalf of a class of others similarly situated, v. Trinity Industries, Inc., and Trinity Highway Products, LLC*, In the Circuit Court of Jackson County, Missouri at Independence, Case No. 1516-CV23684, March 24, 2017.
- Expert Report of Mark A. Israel, In the Matter of *Honeywell International Inc. v. iControl Networks, Inc. and Alarm.com Holdings, Inc.*, In the United States District Court for the District of New Jersey, No. 2:17-cv-01227, February 26, 2017.
- Expert Report of Mark Israel, In the Matter of *Social Ranger, LLC v. Facebook, Inc.*, In the United States District Court for the District of Delaware, C.A. No. 14-1525-LPS, November 23, 2016.
- Expert Report of Mark A. Israel, In the Matter between *Darren Ewert and DENSO Corporation et al.*, In the Supreme Court of British Columbia, Vancouver Registry, No. S-135610, November 15, 2016.
- Expert Reports of Mark A. Israel, In the Matter of the *United States of America et al. v. Anthem Inc. and Cigna Corp.*, In the United States District Court, District of Columbia, No. 16-cv-01493 (ABJ), Initial Report: October 7, 2016; Supplemental and Rebuttal Report: October 28, 2016.
- Verified Statements of Mark Israel and Jonathan Orszag, “Review of Commodity, Boxcar, and TOFC/COFC Exemptions,” Surface Transportation Board, Docket No. EP 704 (Sub-No. 1), Initial Verified Statement: July 26, 2016; Reply Verified Statement: August 26, 2016.
- Declarations of Mark Israel, Daniel Rubinfeld, and Glenn Woroch, “Analysis of the Regressions and Other Data Relied Upon in the Business Data Services FNPRM And a Proposed Competitive Market Test,” Federal Communications Commission, WC Docket Nos. 16-143, 15-247, 05-25, RM-10593, Second Declaration: June 28, 2016; Third Declaration: August 9, 2016.

- Expert Declaration of Mark A. Israel, In the Matter of *Liberian Broadcasting, Inc. and LBI Media, Inc. v. Comcast Corporation and Comcast Cable Communications, LLC*, Federal Communications Commission, MB Docket No. 16-121, June 7, 2016.
- Expert Report of Mark A. Israel, In the Matter of *La Crosse County, Individually, and on behalf of all others similarly situated v. Trinity Industries, INC. and Trinity Highway Products, LLC*, In the United States District Court, Western District of Wisconsin, Case No. 3:15-cv-00117-scl, May 27, 2016.
- Expert Report of Mark A. Israel, In the Matter between *Darren Ewert and Nippon Yusen Kabushiki Kaisha et al.*, In the Supreme Court of British Columbia, Vancouver Registry, No. S-134895, May 20, 2016.
- Declarations of Mark Israel, Daniel Rubinfeld, and Glenn Woroch, In the Matter of *Special Access Rates for Price Cap Local Exchange Carriers*, Federal Communications Commission, WC Docket No. 05-25, Declaration: February 19, 2016; Supplemental Declaration: March 24, 2016; Second Supplemental Declaration: April 20, 2016.
- Declaration of Mark Israel, Daniel Rubinfeld, and Glenn Woroch, “Competitive Analysis of the FCC’s Special Access Data Collection,” Federal Communications Commission, WC Docket No. 05-25, January 26, 2016.
- Declaration of Dr. Mark Israel, In the Matter of *iPic – Gold Class Entertainment, LLC et al., v. Regal Entertainment Group, AMC Entertainment Holdings, Inc. et al.*, In the District Court of Harris County, Texas, 234th Judicial District, No. 2015-68745, January 18, 2016.
- Declaration of Dennis Carlton, Mark Israel, Allan Shampine & Hal Sider, “Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans,” Federal Communications Commission, WC Docket No. 15-247, January 7, 2016.
- Declaration of Mark A. Israel, Attached to “Response of AT&T Mobility LLC to Notice of Apparent Liability for Forfeiture,” Federal Communications Commission, File No. EB-IHD-14-00017504, July 17, 2015.
- Reports in the Matter of *Federal Trade Commission et al. v. Sysco Corporation and USF Holding Corp.*, In the United States District Court for the District of Columbia, Civil Action No. 1:15-cv-00256 (APM), Declaration: February 18, 2015; Report: April 14, 2015; Rebuttal Report: April 21, 2015.
- Declaration of Mark A. Israel, Bryan G. M. Keating, and David Weiskopf, “Economic Analysis of the Effect of the Comcast-TWC Transaction on Voice and Broadband Services in California,” December 3, 2014.
- Expert Report of Mark A. Israel, “Economic Analysis of the Effect of the Comcast-TWC Transaction on Broadband: Reply to Commenters,” Federal Communications Commission, MB Docket No. 14-57, September 22, 2014.
- Supplemental Declaration of Mark Israel and Allan Shampine, In the Matter of *Amendment of the Commission’s Rules Related to Retransmission Consent, Appendix A to “Reply Comments of the National Association of Broadcasters,”* Federal Communications Commission, MB Docket No. 10-71, July 24, 2014.

- Declaration of Mark Israel and Allan Shampine, In the Matter of *Amendment of the Commission's Rules Related to Retransmission Consent, Appendix B to "Comments of the National Association of Broadcasters,"* Federal Communications Commission, MB Docket No. 10-71, June 26, 2014.
- Expert Report of Mark A. Israel, "Implications of the Comcast/Time Warner Cable Transaction for Broadband Competition," Federal Communications Commission, MB Docket No. 14-57, April 8, 2014.
- Declaration of Michael L. Katz, Philip A. Haile, Mark A. Israel, and Andres V. Lerner, "Sprint's Proposed Weighted Spectrum Screen Defies Economic Logic and Is Inconsistent with Established Facts," Federal Communications Commission, WT Docket No. 12-269, March 14, 2014.
- Reply Declaration of Mark A. Israel, "Competitive Effects and Consumer Benefits from the Proposed Acquisition of Leap Wireless by AT&T: A Reply Declaration," Federal Communications Commission, WT Docket No. 13-193, October 23, 2013.
- Declaration of Mark A. Israel, "An Economic Analysis of Competitive Effects and Consumer Benefits from the Proposed Acquisition of Leap Wireless by AT&T," Federal Communications Commission, WT Docket No. 13-193, August 1, 2013.
- Supplemental Reply Declaration of Michael L. Katz, Philip A. Haile, Mark A. Israel, and Andres V. Lerner, "Comments on Appropriate Spectrum Aggregation Policy with Application to the Upcoming 600 MHz Auction," Federal Communications Commission, WT Docket No. 12-269, June 13, 2013.
- Reply Declaration of Michael L. Katz, Philip A. Haile, Mark A. Israel, and Andres V. Lerner, "Comment on the Submission of the U.S. Department of Justice Regarding Auction Participation Restrictions," Federal Communications Commission, WT Docket No. 12-269, June 13, 2013.
- Reply Declaration of Michael L. Katz, Philip A. Haile, Mark A. Israel, and Andres V. Lerner, "Spectrum Aggregation Policy, Spectrum-Holdings-Based Bidding Credits, and Unlicensed Spectrum," Federal Communications Commission, GN Docket No. 12-268, March 12, 2013.
- Declaration of Igal Hendel and Mark A. Israel, "Econometric Principles That Should Guide the Commission's Analysis of Competition for Special Access Service," Federal Communications Commission, WC Docket No. 05-25, February 11, 2013.
- Declarations of Mark A. Israel and Michael L. Katz, "Economic Analysis of Public Policy Regarding Mobile Spectrum Holdings," Federal Communications Commission, WT Docket No. 12-269, Declaration: November 28, 2012; Reply Declaration: January 7, 2013.
- Declaration of Mark Israel, "An Economic Assessment of the Prohibition on Exclusive Contracts for Satellite-Delivered, Cable-Affiliated Networks," Federal Communications Commission, MB Docket Nos. 12-68, 07-18, & 05-192, September 6, 2012.
- Expert Report of Mark Israel, "Implications of the Verizon Wireless & SpectrumCo/Cox Commercial Agreements for Backhaul and Wi-Fi Services Competition," Federal Communications Commission, WT Docket No. 12-4, August 1, 2012.

- Expert Report of Mark A. Israel, Michael L. Katz, and Allan L. Shampine, “Promoting Interoperability in the 700 MHz Commercial Spectrum,” Federal Communications Commission, WT Docket No. 12-69, July 16, 2012.
- Affidavits of Dr. Mark A. Israel in the Matter of *Bloomberg L.P. v. Comcast Cable Communications, LLC*, Federal Communications Commission, MB Docket No. 11-104, Declaration: June 21, 2012; Declaration: June 8, 2012; Supplemental Declaration: September 27, 2011; Declaration: July 27, 2011.
- Expert Report of Robert Willig, Mark Israel, Bryan Keating, and Jonathan Orszag, “Response to Supplementary Comments of Hubert Horan,” Docket DOT-OST-2009-1055, October 22, 2010.
- Expert Report of Robert Willig, Mark Israel, Bryan Keating, and Jonathan Orszag, “Measuring Consumer Benefits from Antitrust Immunity for Delta Air Lines and Virgin Blue Carriers,” Docket DOT-OST-2009-1055, October 13, 2010.
- Expert Report of Mark Israel and Michael L. Katz, “Economic Analysis of the Proposed Comcast-NBCU-GE Transaction,” Federal Communications Commission, MB Docket No. 10-56, July 20, 2010.
- Expert Report of Mark Israel and Michael L. Katz, “The Comcast/NBCU Transaction and Online Video Distribution,” Federal Communications Commission, MB Docket No. 10-56, May 4, 2010.
- Expert Report of Mark Israel and Michael L. Katz, “Application of the Commission Staff Model of Vertical Foreclosure to the Proposed Comcast-NBCU Transaction,” Federal Communications Commission, MB Docket No. 10-56, February 26, 2010.
- Expert Report of Robert Willig, Mark Israel, and Bryan Keating, “Competitive Effects of Airline Antitrust Immunity: Response of Robert Willig, Mark Israel, and Bryan Keating” in Docket DOT-OST-2008-0252, January 11, 2010.
- Affidavit of Dr. Mark A. Israel on Class Certification in the Matter of Puerto Rican Cabotage Antitrust Litigation, in the United States District Court for the District of Puerto Rico, MDL Docket No. 3:08-md-1960 (DRD), December 10, 2009.
- Expert Report of Robert Willig, Mark Israel, and Bryan Keating, “Competitive Effects of Airline Antitrust Immunity,” Docket DOT-OST-2008-0252, September 8, 2009.
- Expert Report and Supplemental Expert Report of Dennis W. Carlton and Mark Israel in the Matter of *Toys “R” Us-Delaware, Inc., and Geoffrey Inc. v. Chase Bank USA N.A.*, in American Arbitration Association New York, New York, Commercial Arbitrations No. 13-148-02432-08, Expert Report: February 27, 2009; Supplemental Expert Report: March 20, 2009.
- Expert Reports of James Levinsohn and Mark Israel, In the Matter of *2006 NPM Adjustment Proceeding pursuant to Master Settlement Agreement*, October 6, 2008; January 16, 2009; March 10, 2009.

SELECTED EXPERT WORK IN REVIEW OF MERGERS/TRANSACTIONS

Successful acquisition of Lumen’s mass market fiber business by AT&T, 2025. Served as lead economic expert for the merging parties. Made multiple submissions to the Department of Justice and contributed to white paper demonstrating benefits from the transaction due to complementarity between Lumen’s fiber business and AT&T’s wireless business, as well as lack of any basis to find harm due to de minimis overlap. Deal cleared with no second request.

Successful acquisition of General Mills’ US Yogurt Business by Lactalis, 2025. Served as lead economic expert for General Mills. Made multiple presentations to the Department of Justice showing lack of material substitution between General Mills’ yogurt products and Lactalis’ yogurt products and explaining the deficiencies in the DOJ’s economic modeling approach. Deal cleared with no conditions.

Successful acquisition of Viterra by Bunge Global, 2025. Served as lead economic expert for the merging parties in the United States and Canada. Performed extensive economic analysis and modeling to show lack of horizontal or vertical merger harms and significant efficiencies across a wide variety of agricultural products. Responded to modeling performed by a Canadian economic expert. Deal ultimately cleared with conditions.

Successful acquisition of Ansys by Synopsys, 2025. Served as lead economic expert for the merging parties. Developed economic analysis demonstrating lack of concern over vertical foreclosure issues for presentation to competition agencies in the US, EU, and UK.

Successful acquisition of NWEA by Houghton Mifflin Harcourt, 2023. Served as lead economic expert for Veritas Capital, owner of Houghton Mifflin Harcourt. Provided analyses demonstrating no significant competitive overlaps, no significant vertical concerns, and substantial pro-competitive benefits via integration of curriculum materials and assessment tools. Deal cleared by DOJ without a second request.

Successful merger of NortonLifelock and Avast to form Gen Digital, 2022. Served as lead economic expert for the parties in the United States. Presented economic analyses demonstrating very low levels of customer overlap between the two consumer cybersecurity firms and thus lack of horizontal merger concerns. Deal cleared by DOJ.

Successful acquisition of Sanderson Farms by Joint Venture of Cargill and Continental Grain, 2022. Served as potential testifying expert on behalf of all three parties. Presented economic analyses demonstrating lack of horizontal concerns to the DOJ.

Successful merger of Sony’s Crunchyroll and AT&T’s Funimation anime streaming platforms. 2021. Served as lead economic expert for AT&T. Made multiple presentations to DOJ, extremely limited consumer switching between them, as well as extensive competition with a broader marketplace including Netflix, Amazon, and others. DOJ closed the investigation allowing the merger to proceed with no conditions.

Successful acquisition of Innovative Industries, Inc. by Ex Libris. 2020. Served as lead economist in interactions with FTC. Demonstrated that the acquisition would not harm competition due to the *de minimis* extent of head-to-head competition between Ex Libris and Innovative and the recent decline of Innovative’s business. FTC closed investigation allowing acquisition to proceed with no conditions.

Successful acquisition of TD Ameritrade by Charles Schwab. 2020. Served as lead economist in interactions with DOJ. Presented analyses demonstrating broad market for investor dollars rather than narrow market for RIA Custodian Services. DOJ closed investigation allowing acquisition to proceed with no conditions.

Successful acquisition of Reinhart Foodservice by Performance Food Group Company. 2019. Served as lead economic expert on behalf of the parties in the FTC's investigation of the merger. Presented data analyses showing ample competition and lack of harm to competition in any geographic market. FTC closed the investigation with no conditions.

Successful acquisition of SGA's Food Group of companies by US Foods. 2019. Served as lead economic expert on behalf of the parties in the FTC's investigation of the merger. Presented detailed economics and econometric analyses showing ample competition and lack of harm to competition in any geographic market. FTC cleared the merger subject to divestitures in three geographic markets in the Fall of 2019.

Successful acquisition of Time Warner by AT&T Inc. 2017-2019. Lead economist throughout the DOJ investigation. Then director of all economic work during trial, serving as the central connection point between all experts and counsel and directing development of all aspects of the economic case. Defendants ultimately prevailed in trial and the merger closed in June 2018.

Successful acquisition of Keystone Foods by Tyson Foods, Inc. 2018. Served as lead economic expert for U.S. jurisdiction. Presented economic analyses demonstrating that competition would remain strong post-merger. Ultimately, antitrust agencies in the U.S., China, Japan, and Korea cleared the transaction.

Successful acquisition of NEX Group PLC by CME Group Inc. 2018. Co-lead economic expert with Thomas Stemwedel. Presented several econometric analyses demonstrating that Treasury futures contracts and cash Treasury securities were economic complements rather than substitutes. Based heavily on these Compass Lexecon submissions, the DOJ and CMA closed their investigations without requiring any divestitures.

Successful acquisition of VCA Inc. by Mars, Inc. 2017. Co-lead economic expert with Mary Coleman. Made multiple presentations to FTC demonstrating ample competition in general, emergency, and specialty veterinary services, including econometric analyses showing lack of direct competitive impact of Mars and VCA on one another. Transaction was ultimately cleared subject to a small number of divestitures.

Successful acquisition of Mobileye by Intel. 2017. Served as lead economic expert for Intel. Assisted counsel in preparing FTC presentations and materials demonstrating lack of significant head-to-head competition and lack of valid vertical foreclosure theories. Investigation was closed without Second Request.

FTC litigation against DraftKings, Inc. and FanDuel Inc. (Civil Action No. 17-cv-1195 (KBJ)). 2017. Served as economic expert for FTC and prepared to serve as FTC's testifying expert against the merger, prior to the parties' abandonment of the deal. Developed economic and econometric evidence that the merging parties were closest substitutes and thus likely would have increased prices as a result of their proposed merger.

- Successful merger of ASE Group and SPIL.* 2017. Lead economic expert on behalf of ASE Group. Submitted reports and testified to the Taiwan Fair Trade Commission, which ultimately cleared the transaction, then made multiple presentations to U.S. FTC, which also cleared the transaction. Economic analyses focused on implications of profit margins for market definition and competitive effects, ultimately demonstrating that the transaction was unlikely to cause significant harm to competition.
- Successful acquisition of Alarm.com of two business units (Connect and Piper) from iControl Networks.* 2017. Led team that demonstrated substantial and growing competition in home security and connected home marketplace and thus lack of competitive harm from acquisition. Work focused on importance of downstream market definition as well as empirical evidence of impact of competition on Alarm.com pricing and profitability.
- Successful acquisition of Samsung Electronics, Ltd.'s printer business by HP Inc.* 2016. Led team in evaluating the competitive effects of the acquisition, including assessing shares and competitive effects in overlap areas. Notably, the transaction gained regulatory approval in the U.S. during the initial review period without issuing a Second Request.
- Successful acquisition of Sun Products Corp. by Henkel AG.* 2016. Led team demonstrating lack of competitive impact despite overlaps in laundry detergent and related products.
- Successful acquisition of Starwood Hotels & Resorts by Marriott International.* 2016. Led team that performed detailed analysis of competitive conditions, extensive econometric analysis of pricing, and full review of Marriott's internal pricing models to demonstrate that Starwood and Marriott were not close competitors, combined ownership of the brands would not lead to upward pricing pressure, and competition would remain robust post-merger.
- Successful acquisition of PR Newswire by GTCR.* 2016. Lead economic expert for GTCR. Made presentations to DOJ showing lack of competitive harm from the transaction, based on detailed analysis of win/loss data, including calculations showing no possible upward pricing pressure (UPP) concerns regardless of the level of margins.
- Successful acquisition of Schurz Communications' Broadcast Stations by Gray Television.* 2015. Lead economic expert for Gray. Made presentations to DOJ demonstrating output expanding effects of proposed transaction in light of the scale economies in television production and advertising and the small size of the DMAs affected by the transaction.
- Successful acquisition of the Communications Business of Danaher Corporation by NetScout Systems.* 2015. Lead economic expert for NetScout. Made presentations to DOJ describing proper economic framework for analysis of competition and potential merger harms, and demonstrated that the presence of multiple viable competitors and numerous other credible threats to be used by powerful buyers in a dynamic industry made theories of anti-competitive harm from the merger implausible.
- Successful acquisition of Windmill Distribution Co. by Manhattan Beer Distributors.* 2015. Lead economic expert for Manhattan Beer Distributors. Submitted White Paper to DOJ demonstrating, based on margin data, that the merger would be highly unlikely to lead to anti-competitive effects. Transaction was granted early termination from the Hart Scott Rodino process by the DOJ.

Proposed acquisition of Time Warner Cable by Comcast Corporation. 2014-2015. Served as lead economic expert on broadband issues on behalf of Comcast Corporation. Submitted multiple Declarations and made multiple presentations to DOJ and FCC, explaining lack of horizontal, bargaining, or vertical/foreclosure concerns with regard to broadband competition as a result of the transaction.

Successful acquisition of Leap Wireless by AT&T. 2014. Lead economic expert for AT&T. Submitted multiple Declarations to FCC and made presentation to DOJ, demonstrating the transaction would generate substantial consumer benefits, while generating at most minimal upward pricing pressure in a properly defined mobile wireless services market and no issues related to spectrum concentration or other competitive concerns.

Successful merger of American Airline and US Airways. 2013. Lead consulting expert, managing Compass Lexecon team of over 25 economists supporting multiple experts. Made multiple presentations to DOJ, worked on expert reports in litigation, and assisted counsel with the analysis leading to settlement of litigation, permitting transaction to close.

Successful merger of T-Mobile USA and MetroPCS. 2013. Lead economic expert for T-Mobile USA. Conducted economic analyses of competitive effects and consumer benefits from the transaction, as well as consumer benefits from reduced costs and increased network quality. Presented analyses to both DOJ and FCC.

FTC investigation of acquisition of Dollar Thrifty Automotive Group by Hertz. 2012. Served as a lead economic expert for FTC and prepared to serve as FTC's testifying expert against the merger, prior to case settlement. Conducted empirical analyses based on previous rental car mergers demonstrating likely price increases from the transaction.

Decision by Federal Communications Commission not to extend the ban on exclusive contracts for satellite-delivered, cable-affiliated networks. 2012. Lead economic expert for National Cable and Telecommunications Association. Submitted economic analysis demonstrating that the ban on exclusive distribution of satellite-delivered, cable affiliated networks is no longer warranted given increased marketplace competition. FCC made decision to allow the ban to sunset.

Successful sale of wireless spectrum by SpectrumCo and Cox ("Cable Companies") to Verizon Wireless and successful completion of related commercial agreements. 2012. On behalf of the Cable Companies, performed economic analyses demonstrating lack of competitive harm from the transaction on markets for backhaul and Wi-Fi services. Presented analyses to FCC.

Successful acquisition by LIN Media of broadcast television stations from NVTN. 2012. Lead economic expert for LIN Media. Prepared economic analysis demonstrating lack of competitive concern over potential issues related to SSA and JSA Arrangements.

Proposed acquisition of T-Mobile USA by AT&T. 2011. Served as one of the lead economists, initially for T-Mobile (along with Michael Katz) and ultimately for both parties (along with Michael Katz and Dennis Carlton). Made multiple presentations to DOJ and FCC. Appeared in FCC Workshop, ex parte meeting.

Successful application for antitrust immunity by Delta and Virgin Blue. 2010. Together with Robert Willig, Bryan Keating, and Jon Orszag, prepared economic analyses demonstrating substantial net consumer benefits from antitrust immunity. Submitted results in expert reports to Department of Transportation.

Successful joint venture between Comcast and NBC Universal (and ultimate full acquisition of NBC Universal by Comcast). 2010. Served as one of the lead economists (along with Michael Katz) on behalf of the merging parties. Wrote multiple reports submitted to FCC (with Michael Katz) demonstrating lack of significant competitive concerns from the transaction. Made multiple presentations to DOJ and FCC. Appeared in FCC Workshop of economists, ex parte meeting.

Successful application for antitrust immunity for oneworld alliance and associated joint venture of American Airlines, British Airways, and Iberia Airlines. 2009-2010. Together with Robert Willig and Bryan Keating, prepared economic analyses demonstrating substantial net consumer benefits associated with antitrust immunity for the joint venture. Submitted results in expert reports to Department of Transportation.

Successful acquisition by PepsiCo of bottlers, PBG and PAS. 2009. Performed econometric and simulation analyses demonstrating pro-competitive effect of merger on PepsiCo's own brands, other brands distributed by PBG and PAS, and overall marketplace. Presented results to FTC (together with Dennis Carlton).

Successful merger of Delta Airlines and Northwest Airlines. 2008. In support of Dennis Carlton, developed empirical and theoretical analyses to demonstrate merger's pro-competitive nature. Work focused on (ultimately settled) private litigation opposing the merger.

Successful acquisition of Harcourt Education by Houghton Mifflin. 2007. Along with Daniel Rubinfeld and Frederick Flyer, developed econometric analyses demonstrating lack of competitive harm from proposed merger. Presented results to DOJ.

Successful acquisition of Chicago Board of Trade by Chicago Mercantile Exchange. 2007. Along with Robert Willig and Hal Sider, developed and presented multiple empirical analyses demonstrating lack of competitive harm from merger. Submitted multiple white papers and made multiple presentations to DOJ.

OTHER CONFIDENTIAL CONSULTING WORK IN THE FOLLOWING INDUSTRIES

Automobiles and Components

Consumer Durables

Consumer Services

Financial Services

Energy

Food, Beverage, and Tobacco

Healthcare Equipment and Services

Media

Pharmaceuticals, Biotechnology, and Life Sciences

Retail

Semiconductors and Semiconductor Equipment

Software and Related Services

Technology: Hardware and Equipment

Telecommunication Services

Transportation

Utilities

PUBLICATIONS AND RESEARCH IN PROGRESS

“Vertical Mergers with Bilateral Contracting and Upstream and Downstream Investment,” (with Daniel P. O’Brien), available at <https://ssrn.com/abstract=3886048>, Forthcoming in the *Journal of Economics & Management Strategy*, April 2026.

“The Horizontal Effects of Competitor Alliances,” (with Daniel O’Brien and Josephine Xu), available at <https://ssrn.com/abstract=6271201>, Forthcoming in *Concurrences*, April 2026.

“Retail Price Parity as a Channel-Coordination Mechanism in Dual Distribution,” (with Michele Bisceglia, Salvatore Piccolo, and Paolo Ramezzana), available at <https://ssrn.com/abstract=6422058>, Submitted to *Management Science*, March 2026.

“Competitor Alliances,” (with Daniel O’Brien and Josephine Xu), available at <https://ssrn.com/abstract=6272898>, Submitted to *The Journal of Law and Economics*, February 2026.

“Lessons from Foreclosure Parables: The Need to Tether Vertical Merger Analysis,” (with Daniel P. O’Brien), available at <https://ssrn.com/abstract=4726861>, Submitted to *The Review of Industrial Organization*, December 2025.

“RPM and Vertical Integration with Upstream Competition and Noncontractible Efforts,” (with Michele Bisceglia, Salvatore Piccolo, and Paolo Ramezzana), available at <https://ssrn.com/abstract=4913199>, Forthcoming in *The Journal of Industrial Economics*, November 2025.

“The Challenges of Cartelization with Many Products and Ongoing Technological Advancements: LCD Crystal Displays Worldwide,” (with Dennis W. Carlton, Ian MacSwain, and Allan Shampine), Chapter 10 in *Cartels Diagnosed: New Insights on Collusion*, Joseph E. Harrington, Jr. and Maarten Pieter Schinkel, eds., December 2024.

“Dynamic Lerner Condition and Horizontal Merger Assessment,” (with Rodrigo Montes, Loren Poulsen, and Jason Wu), available at <https://ssrn.com/abstract=4817343>, May 2024.

- “Evaluating a Theory of Harm in a Vertical Merger: AT&T/Time Warner,” (with Dennis W. Carlton, Georgi V. Giozov, and Allan L. Shampine), Chapter 5 in *Antitrust Economics at a Time of Upheaval: Recent Competition Policy Cases on Two Continents*, John Kwoka, Jr., Tommaso M. Valletti, and Lawrence J. White, eds., August 2023.
- “Cheap Exclusion in Markets with Multiple Complements,” (with Erica Benton and Daniel P. O’Brien), Volume 89 in the *International Journal of Industrial Organization*, July 2023.
- “A Retrospective Analysis of the AT&T/Time Warner Merger” (with Dennis W. Carlton, Georgi V. Giozov, and Allan L. Shampine), Volume 65, Number S2, in the *Journal of Law and Economics*, November 2022.
- “New Merger Guidelines Should Keep the Consumer Welfare Standard” (with Jonathan Orszag and Jeremy Sandford), *CPI Antitrust Chronicle*, November 2022.
- “International Broadband Price Comparisons Tell Us Little about Competition and Do Not Justify Broadband Regulation,” working paper (with Michael Katz and Bryan Keating), commissioned by NCTA – The Internet & Television Association, May 11, 2021.
- “Effects of the 2010 Horizontal Merger Guidelines on Merger Review: Based on Ten Years of Practical Experience,” (with Dennis W. Carlton), Volume 58, Issue 2, in the *Review of Industrial Organization*, November 2020.
- “An Evaluation of the Impact of the 2010 Horizontal Merger Guidelines,” (with Dennis W. Carlton), available at <https://ssrn.com/abstract=3547653>, March 2020.
- “Lessons from AT&T/Time Warner,” (with Dennis W. Carlton and Allan L. Shampine), *Competition Policy International*, July 2019.
- “Are You Pushing Too Hard? Lower Negotiated Input Prices as a Merger Efficiency,” (with Thomas A. Stemwedel and Ka Hei Tse), Volume 82, Issue 2, Pages 623-642, in the *Antitrust Law Journal*, April 2019.
- “Vertical Integration in Multichannel Television Markets: Revisiting Regional Sports Networks Using Updated Data,” (with Georgi Giozov, Nauman Ilias, and Allan Shampine), Volume 4:1 in *The Criterion Journal on Innovation*, 2019.
- “Are Legacy Airline Mergers Pro- or Anti-Competitive? Evidence from Recent U.S. Airline Mergers,” (with Dennis Carlton, Ian MacSwain, and Eugene Orlov), Volume 62, Pages 58-95, in the *International Journal of Industrial Organization*, January 2018.
- “Competitive Effects of International Airline Cooperation,” (with Robert J. Calzaretta and Yair Eilat), Volume 13, Issue 3, Pages 501-548, in the *Journal of Competition Law & Economics*, September 2017.
- “Econometrics and Regression Analysis,” (with Chris Cavanagh, Paul Denis, and Bryan Keating), Chapter 6 in the *American Bar Association’s Proving Antitrust Damages: Legal and Economic Issues, Third Edition*, 2017.
- “Do Premiums Increase After Health Insurance Mergers? – A Reassessment of Guardado et al.’s Findings,” (with Robert C. Bourke, Ben Wagner, and David A. Weiskopf), available at <https://ssrn.com/abstract=2933062>, March 2017.

- “Complementarity without Superadditivity,” (with Steven Berry, Philip Haile, and Michael Katz), Volume 151, Pages 28-30, in *Economics Letters*, December 2016.
- “Antitrust in a Mobile World,” (with Yonatan Even, Jonathan M. Jacobson, Scott Martin, and Dr. Helen Weeds), Chapter 17 in *International Antitrust Law & Policy: Fordham Competition Law 2015*, James Keyte, ed., 2016.
- “Buyer Power in Merger Review,” (with Dennis W. Carlton and Mary Coleman), Chapter 22 in *The Oxford Handbook of International Antitrust Economics*, Volume 1, Roger D. Blair and D. Daniel Sokol, eds., 2015.
- “Airline Network Effects and Consumer Welfare,” (with Bryan Keating, Dan Rubinfeld, and Robert Willig), *Review of Network Economics*, available at <https://ssrn.com/abstract=2473243>, November 2013.
- “The Evolution of Internet Interconnection from Hierarchy to ‘Mesh’: Implications for Government Regulation,” (with Stanley M. Besen), Volume 25 in *Information Economics and Policy*, July 2013.
- “The Delta-Northwest Merger: Consumer Benefits from Airline Network Effects (2008),” (with Bryan Keating, Daniel L. Rubinfeld, and Robert D. Willig), *The Antitrust Revolution*, Sixth Edition, John E. Kwoka, Jr. and Lawrence J. White, eds., July 2013.
- “Proper Treatment of Buyer Power in Merger Review,” (with Dennis W. Carlton), *Review of Industrial Organization*, July 2011.
- “Response to Gopal Das Varma’s Market Definition, Upward Pricing Pressure, and the Role of the Courts: A Response to Carlton and Israel,” (with Dennis W. Carlton), *The Antitrust Source*, December 2010.
- “Will the New Guidelines Clarify or Obscure Antitrust Policy?” (with Dennis W. Carlton), *The Antitrust Source*, October 2010.
- “Should Competition Policy Prohibit Price Discrimination?” (with Dennis W. Carlton), *Global Competition Review*, 2009.
- “The Empirical Effects of Collegiate Athletics: An Update Based on 2004-2007 Data,” (with Jonathan Orszag), Paper commissioned by National Collegiate Athletic Association, available at http://www.epi.soe.vt.edu/perspectives/policy_news/pdf/NCAASpending.pdf, February 2009.
- “Services as Experience Goods: An Empirical Examination of Consumer Learning in Automobile Insurance,” *The American Economic Review*, December 2005.
- “Tenure Dependence in Consumer-Firm Relationships: An Empirical Analysis of Consumer Departures from Automobile Insurance Firms,” *The Rand Journal of Economics*, Spring 2005.
- “The Impact of Youth Characteristics and Experiences on Transitions Out of Poverty,” (with Michael Seeborg), *Journal of Socio-Economics*, 1998.
- “Racial Differences in Adult Labor Force Transition Trends,” (with Michael Seeborg), *Journal of Economics*, 1991.

SELECTED PROFESSIONAL PRESENTATIONS

Penn Carey Law Antitrust Association 2026 Annual Symposium, Antitrust at an Inflection Point: Remedies, Regulation, and the New Political Economy, “Legal and Economic Tools for Ecosystem Regulation,” Panelist, April 10, 2026.

LexMundi 2024 Cross-Border Transactions Global Seminar, “U.S. Merger Control Fireside Chat,” Speaker, February 2024.

American Bar Association Section of Antitrust Law, “Nuts & Bolts of Presenting Economic Evidence to the Agencies: Common Pitfalls and Best Practices,” Panelist, October 2019.

Dechert LLP, 2019 Annual Antitrust Spring Seminar, Keynote Speaker, March 2019.

Concurrences Review and The George Washington University Law School, 6th Bill Kovacic Antitrust Salon: Where is Antitrust Policy Going?, “A Judge’s Eye View on Antitrust: Mergers, Cartels, Remedies...,” Panelist, September 2018.

Fordham Competition Law Institute, 45th Annual Conference on International Antitrust Law and Policy, “Merger Remedies,” Panelist, September 2018.

Georgetown Center for Business and Public Policy, “Airline Competition Conference,” Panelist, July 2017.

J.P. Morgan Special Situations Investor Forum, “The Antitrust Merger Review Process,” Panelist, March 2017.

American Bar Association Section of Antitrust Law, “Economic Issues Raised In The Comcast – Time Warner Cable Merger,” Panelist, February 2016.

Fordham Competition Law Institute, 42nd Annual Conference on International Antitrust Law and Policy, “Antitrust in a Mobile World,” Panelist, October 2015.

American Bar Association Section of Antitrust Law, “Merger Practice Workshop,” Faculty Member, October 2015.

Searle Center Conference on Antitrust Economics and Competition Policy, Panel on Recent Transactions in the Telecom Industry, Panelist, September 2015.

National Bureau of Economic Research, Summer Institute 2015, Industrial Organization Meetings, “Panel Discussion of the Comcast-Time Warner Merger,” Panelist, July 2015.

Federal Communications Bar Association, “How the Antitrust Agencies and the FCC are Likely to Analyze Vertical Mergers,” Panelist, November 2014.

The Coca Cola Company Global Antitrust Forum, “Round Table Discussion on Use of Economics and Economists,” Panel Chair, November 2014.

Compass Lexecon Competition Policy Forum, Lake Como Italy, “Consolidation of the Telecoms Industry in the EU and the U.S.,” Panelist, October 2014.

The IATA Legal Symposium 2014, Aviation Law: Upfront and Center, “Merger Analysis – A sudden shift in approach by DOJ in the American Airlines and US Airways merger,” Panelist, February 2014.

Georgetown Law 7th Annual Global Antitrust Enforcement Symposium, “Merger Enforcement and Policy,” Panelist, September 2013.

American Bar Association Section of Antitrust Law, “Airline Mergers: First Class Results or Middle-Seat Misery?” Panelist, May 2013.

American Bar Association Section of Antitrust Law, “Go Low or Go Home! Monopsony a Problem?” Panelist, March 2012.

Federal Communications Bar Association Transactional Committee CLE Seminar, “The FCC’s Approach to Analyzing Vertical Mergers,” Panelist, October 2011.

The Technology Policy Institute Aspen Forum, “Watching the Future: The Economic Implications of Online Video,” Panelist, August 2011.

American Bar Association Forum on Air & Space Law, 2011 Update Conference, “Antitrust Issues: What’s on the Horizon for the Industry,” Panelist, February 2011.

American Bar Association Section of Antitrust Law, “Antitrust in the Airline Industry,” Panelist, September 2010.

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BEFORE THE SURFACE TRANSPORTATION BOARD

STB DOCKET NO. FD 36873

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

Supplemental Verified Statement of David T. Hunt

July 20, 2026

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1. Introduction

My name is David T. Hunt. I am a Vice President with Oliver Wyman, LLC, a leading general management consulting firm with more than 60 offices in 31 countries.

I sponsored the traffic diversion analysis and related analyses developed by Oliver Wyman and included in the Amended Application requesting Surface Transportation Board (“STB” or “Board”) authority for Union Pacific (“UP”) to control Norfolk Southern (“NS”) filed April 29, 2026 (the “Hunt VS”).

The Board’s Decision No. 21 in the UP-NS merger proceeding contains six requests for supplemental information related to analyses that I sponsored.¹ Exhibit 1.1 summarizes the six requests. This Supplemental Verified Statement responds to each request.

Exhibit 1.1: STB Decision 21 Requests Addressed by Oliver Wyman

No.	Question	Question Request
PB-1	Competitive response assumption	Confirm whether Applicants’ diversion analyses and public benefit summaries reflect Applicants’ assumption that no competitive response, by any market participant, in any form, will occur during the first three years after consummation. If Applicants’ analyses and summaries incorporate a competitive response, detail how that response was incorporated into the model and affects the diversion and benefit estimates.
PB-2	Most likely competitive responses	Taking into account analyses reflected in documents produced in response to Decision No. 13, identify and describe the most likely competitive responses from any mode of transportation to the proposed Transaction and how each response would impact Applicants’ ability to attract new traffic. For each response, (a) provide a quantitative estimate or, if not feasible, a detailed qualitative assessment of the potential reduction in projected diversions, including carload and intermodal on an individual basis and rail-to-rail and truck-to-rail on an individual basis; (b) provide the resulting impact on projected net revenues and annual public benefits; and (c) discuss the impact on earnings available for fixed charges.
PB-4	CGP impact on diversion/ benefits	Confirm whether Applicants’ diversion analysis and public benefit summaries reflect any impact from CGP.
PB-6	Business, commercial, and pricing changes	Beyond conversion of routes to single-line service, elaborate on the extent to which other changes to business or commercial strategies or practices, including pricing, are planned or modeled to achieve projected traffic diversions. Specify (a) the extent to which rate adjustments outside CGP are planned to achieve projected diversions and (b) the extent to which modeled revenue projections reflect any reduction in revenue per carload or other pricing adjustment for any shipper or group of shippers outside CGP.
MS-1	Impact on competing/ alternative routes	For each route on which Applicants’ combined market share will increase if the Transaction is approved, elaborate on the potential impact on competing or alternative routes, including whether those competing or alternative routes’ viability may be jeopardized due to insufficient post-Transaction traffic.
MS-2	Impact of recent industry transactions	Because the diversion analysis does not account for industry changes since 2023 from transactions involving CP-KCS, CSXT-Pan Am, and CN-Iowa Northern, discuss the impact of these transactions on Applicants’ ability to achieve the truck-to-rail

¹ U.S. Surface Transportation Board Decision No. 21 in Docket No. FD 36873, decided May 26, 2026.

and rail-to-rail diversions modeled by Hunt’s diversion and projected market share analysis, including relevant intermodal services such as Falcon Premium and the BNSF/Grupo México/J.B. Hunt service.

2. PB-1: Competitive Response Assumptions

STB Request

Confirm whether Applicants’ diversion analyses and public benefit summaries reflect Applicants’ assumption that no competitive response, by any market participant, in any form, will occur during the first three years after consummation. If Applicants’ analyses and summaries incorporate a competitive response, detail how that response was incorporated into the model and affects the diversion and benefit estimates.

My report submitted with the Amended Application presented two models: a truck-to-rail (“T2R”) model and a rail-to-rail (“R2R”) model. The extent to which the diversion models account for competitive response depends on the type of competitive response at issue. Competitive response can take the form of *structural changes* (e.g., a subsequent merger) or non-structural *normal course competition* (e.g., more competitive pricing or improved service offerings as competitors strive to retain customers). The T2R model and the R2R model do not incorporate structural changes. However, the T2R and R2R models both directly incorporate normal course competitive responses to the introduction of single-line rail service, such as changes to price or service offerings based on historical shipper behavior incorporated in the models as explained below.

More specifically, both the T2R and R2R models incorporate historical data that reflects actual shipper choices in mature markets where carriers have already responded to the presence of single-line rail service by adjusting their price and service offerings. As a result, the models do not require additional market-level assumptions about how competing carriers may adjust price, reliability, transit time, or other service attributes when new single-line rail service is introduced. Those responses are already embedded in the market data.

I alluded to this feature of the R2R and T2R models in my prior report. Regarding the T2R model, Section 3.5 of the Hunt VS explains:

“For example, a 1,500-mile Houston-Cleveland tank-truck lane that would gain single-line service post-merger is matched to similar lanes where single-line rail service already exists. The rail share observed in those comparable markets is then used to predict the rail share for the improved lane. This approach naturally incorporates the key drivers of shipper choice – price, reliability, and transit time – because it relies on actual shipper behavior in markets where single-line rail competes directly with truck.”

Although this statement about the T2R model focuses on shipper behavior, the comparison to similar lanes where single-line rail service already exists also captures the competitive responses of other carriers in those markets. Specifically, by matching a lane that will gain new single-line rail service to comparable lanes in other US regions, the T2R model reflects the market equilibrium that actually emerges after truck carriers and interline rail carriers adjust their pricing and service offerings in response to single-line rail competition. Thus, the predicted truck and

rail shares incorporate not only shipper preferences but also the historical competitive responses of truck and rail carriers in similar markets.

Said differently, the T2R diversion model looks to markets where a competitive process analogous to that associated with the UP-NS merger has already run its course. In those markets, truck and rail competitors have made their ordinary business decisions about price, service, reliability, and transit time. Shippers have made their choices in light of those decisions. The model uses those documented choices of transportation service providers and shippers to predict what may happen in similar markets.

The same basic point applies to rail-to-rail diversion. The R2R model described in my report uses impedances and junction frequency “as practical proxies for the underlying factors that drive shipper preference on price, reliability, and transit time.”² Because the R2R model was calibrated using historical data, the calibrated relationship reflects shipper behavior in markets where competing rail carriers have already responded to the availability of single-line service through their pricing, service levels, reliability, and transit-time offerings. Accordingly, the R2R model incorporates historical competitive responses to single-line rail service, rather than requiring those responses to be separately assumed. Just as the shipper choices observed in the data reflect normal course competitive responses, so too does the diversion model not assume that other railroads do nothing; rather, it is using market outcomes after railroads have already competed as the basis for the projected rail-to-rail diversions.

3. PB-2: Most Likely Competitive Responses

STB Request

Taking into account analyses reflected in documents produced in response to Decision No. 13, identify and describe the most likely competitive responses from any mode of transportation to the proposed Transaction and how each response would impact Applicants’ ability to attract new traffic. For each response, (a) provide a quantitative estimate or, if not feasible, a detailed qualitative assessment of the potential reduction in projected diversions, including carload and intermodal on an individual basis and rail-to-rail and truck-to-rail on an individual basis; (b) provide the resulting impact on projected net revenues and annual public benefits; and (c) discuss the impact on earnings available for fixed charges.

Competitive response can take the form of *structural changes* (e.g., a subsequent merger) or non-structural *normal course competition* (e.g., more competitive pricing or service offerings as competitors strive to retain customers). As I discussed in response to Request PB-1, the R2R and T2R models already incorporate normal course competition through the incorporation of historical data from analogous competitive environments.

I would not expect structural competitive responses from the trucking industry to impact the results of my T2R diversion analysis. The trucking industry is already characterized by participants that provide nationwide, single-line service. This makes it possible to use the T2R to compare market shares in lanes with existing single-line railroad service to archetype lanes where UP-NS will introduce new single-line service. This approach reflects the rail share in markets where trucking companies – which offer single-line service – have already made any

² Hunt Verified Statement (“VS”), April 30, 2026, Section 3.5.

price, service adjustments, or other responses to account for single-line rail service. Therefore, the estimated UP-NS diversions fully account for a foreseeable trucking industry response and no adjustments for structural responses are warranted.

By contrast, there are structural responses from the railroad industry that would be expected to impact the results of my R2R diversion analysis. In particular, structural responses from other railroads could involve different combinations of mergers. For the purposes of this response, therefore, I considered three hypothetical mergers that would likely have the greatest impact on the estimated UP-NS diversions: BNSF-CSX, CPKC-CSX, and BNSF-CPKC-CSX.

To estimate the reduction in UP-NS diversion volumes and gross revenues under these three merger scenarios, I assumed no other railroad industry structural responses occur simultaneously. I also focused exclusively on the Board's request for information regarding the reduction in UP-NS diversion volumes and revenues. I used my existing UP-NS traffic study as a baseline to project how much traffic might not divert to UP-NS in the event of the assumed structural response. I did not create a new diversion model to estimate whether or how much additional volume and revenue might be diverted from UP-NS as the result of a structural response.

My analysis was comprehensive, in that it considered R2R, T2R merchandise/bulk, T2R intermodal, T2R assembled automobiles, and extended haul diversions.

As described below, my analysis showed the difference between a BNSF-CSX and a BNSF-CPKC-CSX response was minimal—that is, adding CPKC had very little impact. Given these results, I decided that merger combinations involving CN would have similar minor incremental impacts to the BNSF-CSX scenario and therefore did not model CN.

3.1. Overall Volume Impacts of Additional Merger Assumptions

Should BNSF and CSX merge, I estimate that UP-NS net diversions would be reduced by 63,000 carloads and 629,000 intermodal units annually, for a total reduction of 692,000 carloads/units per year. Should CPKC and CSX merge, I estimate that UP-NS net diversions would be reduced by 15,000 carloads and 59,000 intermodal units annually, for a total reduction of 73,000 carloads/units per year. Finally, if BNSF, CPKC, and CSX merge, I estimate that UP-NS diversions would be reduced by 70,000 carloads and 629,000 intermodal units annually, for a total reduction of 699,000 carloads/units per year.

Exhibits PB2.1 through PB2.3 below show the details. The top table in each exhibit contains the total estimated diversions for UP-NS, without considering responsive railroad mergers.³ These tables are broken out by the diversion source (e.g., T2R intermodal, R2R extended haul) and service types. The middle tables use the same format to show the estimated reduction in UP-NS diversion traffic under the three hypothetical merger scenarios. The bottom table in each exhibit is the sum of the top and middle tables, which is the revised UP-NS estimated diversions considering other potential railroad mergers.

³ Hunt Verified Statement, Exhibit 2-4, inclusive of errata corrections filed concurrently with this supplemental statement

Exhibit PB2.1: Scenario 1 Variant of Hunt Verified Statement Exhibit 2-4, considering UP-NS merger and assumed BNSF-CSX merger⁴

Total UP-NS diversion estimate is on top, changes in the middle, and revised UP-NS diversions on the bottom. All values in thousands of carloads or intermodal units

Estimated total annual diversions from UP-NS merger						
	Merchandise	Bulk	Automotive	Subtotal Carload	Intermodal	Total
A. Total rail to rail diversion	122	31	53	206	302	508
<i>A1. R2R extended haul diversions</i>	97	28	43	167	211	378
<i>A2. R2R new traffic</i>	25	3	10	39	91	130
B. Total T2R diversions	193	0	5	198	1,178	1,376
C. Long haul drayage diversions	0	0	0	0	70	70
D. Total gross diversions	315	31	58	404	1,550	1,954
E. R2R extended haul offsets	(84)	(34)	(32)	(150)	(211)	(360)
F. Long haul drayage offsets	0	0	0	0	(70)	(70)
G. Net diversions	231	(4)	26	254	1,269	1,523
Estimated total annual reductions in UP-NS diversions should BNSF-CSX merge						
	Merchandise	Bulk	Automotive	Subtotal Carload	Intermodal	Total
A. Total rail to rail diversion	(14)	(3)	(15)	(32)	(80)	(112)
<i>A1. R2R extended haul diversions</i>	(5)	(2)	(6)	(13)	(14)	(27)
<i>A2. R2R new traffic</i>	(9)	(1)	(9)	(19)	(66)	(85)
B. Total T2R diversions	(41)	-	(1)	(43)	(563)	(605)
C. Long haul drayage diversions	0	0	0	0	0	-
D. Total gross diversions	(55)	(3)	(17)	(75)	(643)	(718)
E. R2R extended haul offsets	4	3	5	12	14	26
F. Long haul drayage offsets	0	0	0	0	0	-
G. Net diversions	(51)	(0)	(12)	(63)	(629)	(692)
Estimated total annual diversions for UP-NS considering a merger of BNSF-CSX						
	Merchandise	Bulk	Automotive	Subtotal Carload	Intermodal	Total
A. Total rail to rail diversion	108	28	38	174	222	395
<i>A1. R2R extended haul diversions</i>	92	25	36	154	197	350
<i>A2. R2R new traffic</i>	16	2	1	20	25	45
B. Total T2R diversions	152	-	4	155	615	771
C. Long haul drayage diversions	0	0	0	0	70	70
D. Total gross diversions	260	28	41	329	908	1,236
E. R2R extended haul offsets	(79)	(31)	(27)	(138)	(197)	(334)
F. Long haul drayage offsets	-	-	-	-	(70)	(70)
G. Net diversions	181	(4)	14	191	641	832

⁴ Workpaper "C-STB-Decision21-PB2-Summary v20260714.xlsx," Tab "PB2-Volume"

Exhibit PB2.2: Scenario 2 Variant of Hunt Verified Statement Exhibit 2-4 considering UP-NS merger and assumed CPKC-CSX merger⁵

Total UP-NS diversion estimate is on top, changes in the middle, and revised UP-NS diversions on the bottom. All values in thousands of carloads or intermodal units

Estimated total annual diversions from UP-NS merger						
	Merchandise	Bulk	Automotive	Subtotal Carload	Intermodal	Total
A. Total rail to rail diversion	122	31	53	206	302	508
<i>A1. R2R extended haul diversions</i>	97	28	43	167	211	378
<i>A2. R2R new traffic</i>	25	3	10	39	91	130
B. Total T2R diversions	193	0	5	198	1,178	1,376
C. Long haul drayage diversions	0	0	0	0	70	70
D. Total gross diversions	315	31	58	404	1,550	1,954
E. R2R extended haul offsets	(84)	(34)	(32)	(150)	(211)	(360)
F. Long haul drayage offsets	0	0	0	0	(70)	(70)
G. Net diversions	231	(4)	26	254	1,269	1,523
Estimated total annual reductions in UP-NS diversions should CPKC-CSX merge						
	Merchandise	Bulk	Automotive	Subtotal Carload	Intermodal	Total
A. Total rail to rail diversion	(7)	(0)	(5)	(13)	(18)	(31)
<i>A1. R2R extended haul diversions</i>	(4)	(0)	(3)	(7)	(8)	(15)
<i>A2. R2R new traffic</i>	(3)	(0)	(2)	(5)	(10)	(16)
B. Total T2R diversions	(8)	-	(0)	(8)	(48)	(56)
C. Long haul drayage diversions	0	0	0	0	0	-
D. Total gross diversions	(15)	(0)	(5)	(21)	(66)	(87)
E. R2R extended haul offsets	4	0	2	6	8	14
F. Long haul drayage offsets	0	0	0	0	0	-
G. Net diversions	(12)	(0)	(3)	(15)	(59)	(73)
Estimated total annual diversions for UP-NS considering a merger of CPKC-CSX						
	Merchandise	Bulk	Automotive	Subtotal Carload	Intermodal	Total
A. Total rail to rail diversion	115	30	47	193	284	477
<i>A1. R2R extended haul diversions</i>	93	27	40	160	203	362
<i>A2. R2R new traffic</i>	22	3	8	33	81	114
B. Total T2R diversions	185	-	5	190	1,130	1,320
C. Long haul drayage diversions	0	0	0	0	70	70
D. Total gross diversions	300	30	52	383	1,484	1,866
E. R2R extended haul offsets	(80)	(34)	(30)	(144)	(203)	(346)
F. Long haul drayage offsets	-	-	-	-	(70)	(70)
G. Net diversions	220	(4)	23	239	1,211	1,450

⁵ Ibid.

Exhibit PB2.3: Scenario 3 Variant of Hunt Verified Statement Exhibit 2-4 considering UP-NS merger and assumed BNSF-CPKC-CSX merger⁶

Total UP-NS diversion estimate is on top, changes in the middle, and revised UP-NS diversions on the bottom. All values in thousands of carloads or intermodal units

Estimated total annual diversions from UP-NS merger						
	Merchandise	Bulk	Automotive	Subtotal Carload	Intermodal	Total
A. Total rail to rail diversion	122	31	53	206	302	508
<i>A1. R2R extended haul diversions</i>	97	28	43	167	211	378
<i>A2. R2R new traffic</i>	25	3	10	39	91	130
B. Total T2R diversions	193	0	5	198	1,178	1,376
C. Long haul drayage diversions	0	0	0	0	70	70
D. Total gross diversions	315	31	58	404	1,550	1,954
E. R2R extended haul offsets	(84)	(34)	(32)	(150)	(211)	(360)
F. Long haul drayage offsets	0	0	0	0	(70)	(70)
G. Net diversions	231	(4)	26	254	1,269	1,523
Estimated total annual reductions in UP-NS diversions should BNSF-CPKC-CSX merge						
	Merchandise	Bulk	Automotive	Subtotal Carload	Intermodal	Total
A. Total rail to rail diversion	(17)	(3)	(15)	(35)	(80)	(116)
<i>A1. R2R extended haul diversions</i>	(6)	(3)	(6)	(15)	(14)	(29)
<i>A2. R2R new traffic</i>	(11)	(1)	(9)	(21)	(66)	(87)
B. Total T2R diversions	(46)	-	(1)	(48)	(563)	(611)
C. Long haul drayage diversions	0	0	0	0	0	-
D. Total gross diversions	(63)	(3)	(17)	(83)	(643)	(726)
E. R2R extended haul offsets	5	3	5	13	14	27
F. Long haul drayage offsets	0	0	0	0	0	-
G. Net diversions	(58)	(0)	(12)	(70)	(629)	(699)
Estimated total annual diversions for UP-NS considering a merger of BNSF-CPKC-CSX						
	Merchandise	Bulk	Automotive	Subtotal Carload	Intermodal	Total
A. Total rail to rail diversion	105	27	38	170	222	392
<i>A1. R2R extended haul diversions</i>	91	25	36	152	196	349
<i>A2. R2R new traffic</i>	14	2	1	18	25	43
B. Total T2R diversions	147	-	4	150	615	766
C. Long haul drayage diversions	0	0	0	0	70	70
D. Total gross diversions	252	27	41	321	907	1,228
E. R2R extended haul offsets	(79)	(31)	(27)	(137)	(196)	(333)
F. Long haul drayage offsets	-	-	-	-	(70)	(70)
G. Net diversions	174	(4)	14	184	640	824

R2R diversions considered the historical route when “giving back” diverted traffic. In Scenario 1, for example, if the estimated diversions were new traffic and the historical route was a BNSF-CSX move, then 100% of the diversions were returned to BNSF-CSX. If the estimated diversions were extended haul (e.g., BNSF-NS or UP-CSXT) then diverted traffic was given back so the total market traffic was split 50:50. Scenario 2 used the same approach under the assumption of a CPKC-CSX merger. Scenario 3 also used the same approach, although any

⁶ Ibid.

combination of the three railroads was considered. Thus, if UP-NS diverted traffic from a BNSF-CPKC, BNSF-CSX, or CPKC-CSX route, 100% was given back to the historical route.

The largest diversion impact would be to T2R intermodal, which shows a 48% reduction from 1,178,000 units to 615,000 units in both Scenario 1 and Scenario 3. The majority of the lanes where UP-NS will operate intermodal service will also be lanes where BNSF-CSX could offer a competitive service. Adding CPKC to BNSF-CSX in Scenario 3 did not open any new intermodal lanes in markets with UP-NS estimated truck-to-rail intermodal diversions, so the results are identical. These lanes were given a 50:50 split of the diversions, with no attempt made to estimate if additional trucks could be diverted from those lanes. Based on input from railroad experts, in lanes where one railroad would have a clear distance advantage (more than 250 miles) a 60/40 split was used, while lanes where other hypothetical merging roads could not offer a competing service remain with UP-NS.⁷

T2R merchandise/bulk followed a similar approach by considering the relative distance between the UP-NS routes and the routes of other potential merging carriers. The T2R merchandise/bulk was modeled at a county-to-county level rather than at the Bureau of Economic Analysis economic area (“BEA”) level used in T2R intermodal. The more detailed geography led to smaller reductions than estimated for T2R intermodal, with a 24% decline from 193,000 carloads to 147,000 carloads for T2R merchandise in Scenario 3.

The following sections provide details of the methodology used to generate Exhibits PB2.1 through PB2.3. The detailed methodological descriptions focus on Scenario 1 above, as summarized in Exhibit PB2.1. The other two scenarios, summarized in Exhibit PB2.2 and Exhibit PB2.3, use an identical methodology and so the discussions below broadly apply to them as well.

3.2. Rail-to-Rail Diversion

In Scenario 1 and Exhibit PB2.1 total R2R diversions are estimated to decrease from 508,000 to 395,000, a decline of 112,000, should BNSF-CSX merge.⁸ The following rules were used in estimating the “give-back” traffic:

1. BNSF-CSX historical traffic diverted to UP-NS was assumed to remain on BNSF-CSX (gave back 100% of this traffic).
2. BNSF-NS historical traffic diverted to UP-NS was given back so that the market was 50:50.
 - Markets were split 50:50 only if UP-NS had diverted more than 50% of the carloads. If the R2R diversion model gave UP-NS less than half the total carloads for that origin-destination-service type, then no UP-NS diversions were “given back” to BNSF-CSX.
 - For example, in a market where BNSF-NS moved 100 carloads and 60 were diverted to UP-NS, then the diversions were reduced by 10 carloads so the market was split 50:50. If instead, the R2R diversion model estimated 40 of the 100 carloads would divert to UP-NS, then zero was given back.

⁷ The only lanes considered non-competitive for intermodal traffic in a BNSF-CSX or BNSF-CPKC-CSX merger involve the Lehigh Valley. See “HC-STB-Decision21-PB2-T2IM v20260625.xlsx.”

⁸ Workpaper “HC-R2R Traffic vFinal v260702-STB-Dec21-PB2.xlsx.” Rounding is done after the calculations, thus 508,000 minus 395,000 is 112,000 when the subtraction is prior to rounding.

3. UP-CSX historical traffic diverted to UP-NS was given back using the same rule as BNSF-NS.
4. Diversions from routes involving BNSF or CSX but not falling under the first three rules used the same rule as BNSF-NS where the market was split 50:50. An example would be Boston, MA-CSX-Chicago, IL-CN-Duluth, MN. The assumption being that BNSF could replace CN or potentially improve the route.
5. If BNSF or CSX did not serve at least the origin or termination, 100% of the diversions were retained on UP-NS.

3.3. Truck-to-Rail Merchandise and Bulk Diversions

Total T2R merchandise/bulk diversions are estimated to decrease from 193,000 to 152,000 rail carloads, a decline of 41,000 carloads, in the event of a BNSF-CSX merger.⁹ The following rules were used in estimating the traffic that would shift to BNSF-CSX:

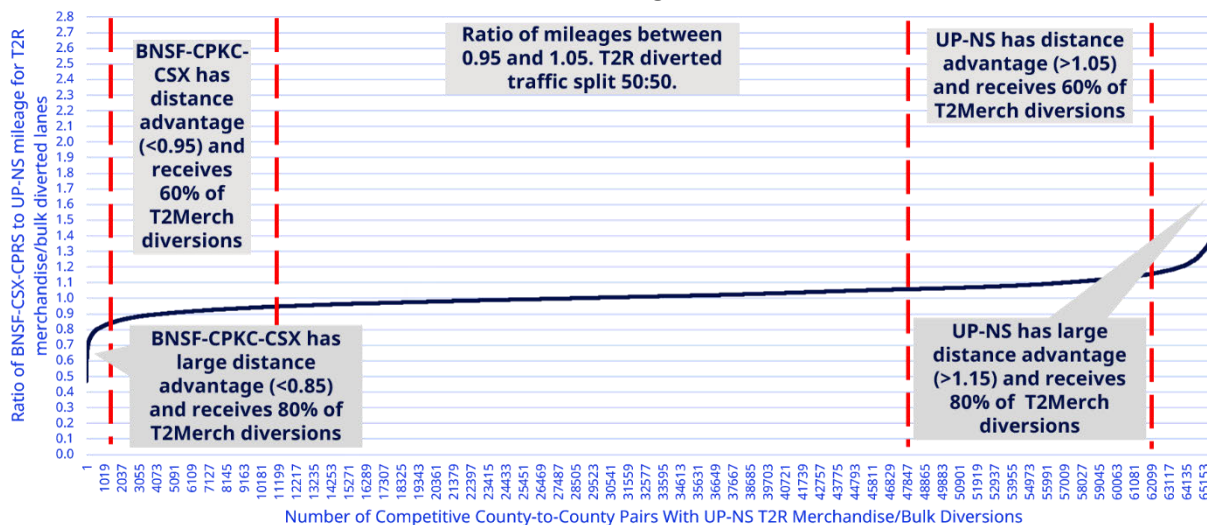
1. If BNSF-CSX cannot directly serve the origin county and the destination county, then UP-NS retains 100% of the T2R diversions.
2. If distances are not available for both UP-NS and BNSF-CSX, then split diversions 50:50.
3. If UP-NS cannot directly serve the origin and destination county but BNSF-CSX can, then split diversions 50:50.
4. If BNSF-CSX can serve the origin and destination county, then:
 - If the ratio of BNSF-CSX/UP-NS mileage is <0.85 then BNSF-CSX gets 80% of diverted traffic;
 - If the ratio of BNSF-CSX/UP-NS mileage is ≥ 0.85 and <0.95 then BNSF-CSX gets 60% of diverted traffic;
 - If the ratio of BNSF-CSX/UP-NS mileage is ≥ 0.95 and <1.05 then BNSF-CSX gets 50% of diverted traffic;
 - If the ratio of BNSF-CSX/UP-NS mileage is ≥ 1.05 and <1.15 then BNSF-CSX gets 40% of diverted traffic; and
 - If the ratio of BNSF-CSX/UP-NS mileage is ≥ 1.15 then BNSF-CSX gets 20% of diverted traffic.
5. All mileages were based on Quantanet network routes for consistency.

I decided on the above mileage ratios for determining market shares based on a review of the cumulative distribution curve for mileage ratios as shown in Exhibit PB2.4. Exhibit PB2.4 graphs the ratio of BNSF-CPKC-CSX to UP-NS mileages for the competitive county-to-county pairs where there were UP-NS T2R merchandise/bulk diversions. The y-axis is the mileage ratio where values below one indicate a BNSF-CPKC-CSX distance advantage and values above one indicate a UP-NS distance advantage. The graph appears skewed in favor of UP-NS, but that is to be expected since T2R diversions only occurred in lanes where UP-NS improves the existing rail service. Since the exercise is to estimate how many UP-NS estimated diversions would be lost to other rail carriers, lanes where BNSF-CPKC-CSX would provide sole service are not

⁴ Workpaper “HC-STB-Decision21-PB2-T2Merch v20260707.xlsx”.

considered. Because the graph is skewed with more lanes showing a UP-NS distance advantage, I used an equal distribution so there was a 10-point range for BNSF-CPKC-CSX or UP-NS to gain a 60/40 split (0.85-0.95 distance ratio for BNSF-CPKC-CSX vs. 1.05-1.15 distance ratio for UP-NS).

Exhibit PB2.4: Ratio of BNSF-CPKC-CSX to UP-NS mileages for T2R diverted merchandise/bulk lanes¹⁰



Scenarios 2 and 3 were done using the same methodology. The same ratio of mileages (merging carrier mileage divided by UP-NS mileage) used to apportion the diverted traffic in Scenario 1 were used for Scenarios 2 and 3 because the values used were based on an equal distribution informed by Exhibit PB2.4 rather than exact values from Exhibit PB2.4.

3.4. Truck-to-Rail Intermodal Diversion

The estimated UP-NS T2R intermodal diversions are projected to decrease from 1,178,000 to 615,000 units under a hypothetical BNSF-CSX merger.¹¹ Railroads compete with trucks and with other railroads for intermodal traffic over broad geographic catchment areas around terminals.¹² While my methodology for estimating structural competitive response impacts for T2R intermodal is similar to the method I used for T2R merchandise/bulk, my assumptions reflect the different geographic competitive dynamics. In T2R merchandise/bulk, the traffic originates and terminates in a specific county, while in T2R intermodal the traffic can originate and terminate in a large catchment area of counties, prompting an expansion of the distance difference between UP-NS and BNSF-CSX. The assumptions for T2R intermodal competitive response impacts were as follows:

1. If BNSF-CSX does, or can, provide intermodal service in a lane where UP-NS diversions are estimated, then the intermodal traffic is split 50:50 if the route mileages are within 250 miles of each other. This was most of the lanes;

¹⁰ Workpaper “HC-STB-Decision21-PB2-T2Merch v20260707.xlsx” Tab “Ratio.”

¹¹ Workpaper “HC-STB-Decision21-PB2-T2IM v20260625.xlsx.”

¹² Hunt VS, Exhibit B-7.

2. If BNSF-CSX does, or can, provide intermodal service in the lane where the diversions are estimated, but their route is 250 miles longer than the UP-NS route, then UP-NS retained 60% of the diversions and BNSF-CSX received 40%;
3. If BNSF-CSX does, or can, provide intermodal service in the lane where the diversions are estimated, but their route is 250 miles shorter than the UP-NS route, then UP-NS retained 40% of the diversions and BNSF-CSX received 60%; and
4. If BNSF-CSX does not serve the lane, then all the diversions remain on UP-NS. This only occurred on diversions involving the Lehigh Valley Line.

Distances were calculated by the railroads using PC*Miler|Rail by selecting the most likely BNSF-CSX terminal location in a region. The results were validated with UP and NS.¹³

As noted, Scenarios 2 and 3 used the same methodology. In Scenario 2, most lanes involving UP-NS estimated T2R intermodal diversions were not served by CPKC-CSX, for example California to New Jersey. This led to a reduction of 48,000 containers, 4% of the estimated 1.178 million diversions. For Scenario 3, the results were the same as Scenario 1 because adding CPKC to BNSF-CSX did not open new intermodal lanes involving estimated UP-NS diversions.

3.5. Truck-to-Rail Automotive Diversion

The estimated UP-NS T2R automotive diversions are projected to decrease from 5,000 to 4,000 under a hypothetical BNSF-CSX merger. The assumptions were:

1. BNSF-CSX needs to access the originating plant to capture a share of the T2R diversions; and¹⁴
2. BNSF-CSX needs to serve the destination region, but they could add a ramp at the destination if one is not already present.

If BNSF-CSX meets both criteria, then the T2R diversion estimate is split 50:50 between BNSF-CSX and UP-NS. If BNSF-CSX fails either criterion, then UP-NS retains all the traffic. Oliver Wyman made an initial pass at identifying BNSF-CSX access at the origin and destination and then validated the results with UP and NS.¹⁵

Using the same methodology, Scenario 2 had a negligible number of UP-NS T2R auto diversions lost, while the Scenario 3 results were identical to Scenario 1.

3.6. Long-Haul Drayage Extended Haul Diversions

Long-haul drayage consists of intermodal movements involving a western Class I railroad and a drayage from Chicago or Memphis eastward of greater than 150 miles. As discussed in Section 5.5 of my Verified Statement, the linehaul intermodal leg of this long-haul drayage traffic was assumed to be currently split 50:50 between the two western Class I railroads.¹⁶

¹³ Workpaper “HC-STB-Decision21-PB2-T2IM v20260625.xlsx.”

¹⁴ Conservative estimates regarding auto plant access were made. For example, although CSX does not access the Subaru plant near Tippecanoe County, IN, the model however, CSX could build an origin ramp in nearby Lafayette, IN.

¹⁵ Workpaper “HC-STB-Decision21-PB2-T2Auto v20260625.xlsx”

¹⁶ Hunt VS, Section 5.5.

The Transearch database was used to estimate the total addressable market for long-haul drayage at 175,000 units.¹⁷ Based on discussions with UP subject matter experts, it was assumed these 175,000 units were evenly split between UP and BNSF. Since only half of the estimated long-haul drayage moves were assumed to involve UP, there is no change required to the estimated UP-NS extended haul diversions as a result of hypothetical BNSF-CSX, CPKC-CSX, or BNSF-CPKC-CSX mergers.

3.7. Revenue Impacts

Under a hypothetical BNSF-CSX merger, I calculate that the UP-NS estimated \$4.04 billion revenue increase from diversions would be reduced by \$1.51 billion, for a new UP-NS total revenue gain from diversions of \$2.53 billion (see Exhibit PB2.6). A CPKC-CSX merger would reduce the UP-NS estimated diversion revenue by \$197 million to \$3.85 billion (see Exhibit PB2.7). A BNSF-CPKC-CSX merger would reduce the UP-NS estimated diversion revenue by \$1.56 billion to \$2.49 billion (see Exhibit PB2.8).

These estimates of the revenue impact of other possible mergers were derived by applying the ratio of the changes to volumes provided in Exhibits PB2.1 through PB2.3. I assumed that for the purpose of answering the STB’s question PB-2 regarding “*assessment of the potential reduction in projected diversions*” the diversions “lost” due to other Class I mergers would be similar to the overall diverted traffic, with respect to commodity mix and length of haul, and therefore applying the ratio of volume reductions to overall diversions for estimating revenue impacts would provide an unbiased estimate. Exhibit PB2.5, immediately below, provides a sample calculation for truck-to-rail intermodal traffic. The estimated T2IM diversions were 1,178,000 units and the estimated reduction due to a hypothetical BNSF-CSX merger are 563,000 units, for a ratio of 0.478. The same ratio was applied to the estimated \$2.1 billion revenue increase to estimate a reduction of \$0.99 billion.¹⁸ To improve precision, the calculations were done without rounding.

Exhibit PB2.5: Calculation illustrating how Exhibits PB2.6 through PB2.8 were developed using T2R intermodal from Scenario 1 (BNSF-CSX)¹⁹

	Volume (thousands)	Revenue (millions)
Total Diversion Est.	1,178	\$ 2,076
Est. Reduction From BNSF-CSX	(563)	\$ (992)
Ratio	-0.478	-0.478

To account for revenue adjustments for extended haul traffic diversions (revenue offsets), I calculated the ratio of the volume “give backs” to total diversions and applied it to the revenue offsets for each of the four service types. Since there were no adjustments to long-haul drayage diversions, I made no adjustments to the long-haul drayage offsets estimates.

¹⁷ Hunt, VS, Section 5.5.

¹⁸ Workpaper “C-STB-Decision21-PB2-Summary v20260714.xlsx” Tab “PB2-Revenue.”

¹⁹ Ibid.

Exhibit PB2.6: Scenario 1 Variant of Hunt Verified Statement Exhibit 8-1 considering UP-NS and a hypothetical BNSF-CSX merger²⁰

Original Exhibit 8-1 on top, changes in the middle, and revised UP-NS diversions revenue estimates on the bottom. All values in millions of US dollars

Estimated total annual revenue from UP-NS merger						
	R2R	T2R	Total	Offsets	Net revenue	
Merchandise		\$629	\$1,290	\$1,919	(\$414)	\$1,506
IM w/o LHD		\$558	\$2,076	\$2,633	(\$303)	\$2,330
Long-Haul Dray		\$119	\$0	\$119	(\$114)	\$5
Bulk		\$180	\$0	\$180	(\$114)	\$66
Auto		\$239	\$22	\$261	(\$123)	\$137
Total		\$1,724	\$3,388	\$5,113	(\$1,068)	\$4,044

Estimated total annual reductions in UP-NS diversion revenue should BNSF-CSX merge						
	R2R	T2R	Total	Offsets	Net revenue	
Merchandise		(\$72)	(\$275)	(\$347)	\$21	(\$326)
IM w/o LHD		(\$148)	(\$992)	(\$1,139)	\$20	(\$1,119)
Long-Haul Dray		\$0	\$0	\$0	\$0	\$0
Bulk		(\$18)	\$0	(\$18)	\$10	(\$8)
Auto		(\$68)	(\$6)	(\$75)	\$18	(\$57)
Total		(\$306)	(\$1,273)	(\$1,579)	\$69	(\$1,510)

Estimated total annual revenue from UP-NS merger considering a BNSF-CSX merger						
	R2R	T2R	Total	Offsets	Net revenue	
Merchandise		\$557	\$1,015	\$1,572	(\$393)	\$1,179
IM w/o LHD		\$410	\$1,084	\$1,494	(\$283)	\$1,211
Long-Haul Dray		\$119	\$0	\$119	(\$114)	\$5
Bulk		\$162	\$0	\$162	(\$104)	\$58
Auto		\$170	\$16	\$186	(\$105)	\$81
Total		\$1,419	\$2,115	\$3,534	(\$1,000)	\$2,534

²⁰ Ibid.

Exhibit PB2.7: Scenario 2 Variant of Hunt Verified Statement Exhibit 8-1 considering UP-NS and a hypothetical CPKC-CSX merger²¹

Original Exhibit 8-1 on top, changes in the middle, and revised UP-NS diversions revenue estimates on the bottom. All values in millions of US dollars

	R2R	T2R	Total	Offsets	Net revenue	
Merchandise		\$629	\$1,290	\$1,919	(\$414)	\$1,506
IM w/o LHD		\$558	\$2,076	\$2,633	(\$303)	\$2,330
Long-Haul Dray		\$119	\$0	\$119	(\$114)	\$5
Bulk		\$180	\$0	\$180	(\$114)	\$66
Auto		\$239	\$22	\$261	(\$123)	\$137
Total		\$1,724	\$3,388	\$5,113	(\$1,068)	\$4,044

Estimated total annual reductions in UP-NS diversion revenue should CPKC-CSX merge						
	R2R	T2R	Total	Offsets	Net revenue	
Merchandise		(\$36)	(\$55)	(\$90)	\$18	(\$73)
IM w/o LHD		(\$34)	(\$85)	(\$119)	\$11	(\$107)
Long-Haul Dray		\$0	\$0	\$0	\$0	\$0
Bulk		(\$2)	\$0	(\$2)	\$1	(\$1)
Auto		(\$25)	(\$0)	(\$25)	\$9	(\$16)
Total		(\$97)	(\$140)	(\$236)	\$39	(\$197)

Estimated total annual revenue from UP-NS merger considering a CPKC-CSX merger						
	R2R	T2R	Total	Offsets	Net revenue	
Merchandise		\$593	\$1,236	\$1,829	(\$396)	\$1,433
IM w/o LHD		\$524	\$1,991	\$2,515	(\$292)	\$2,223
Long-Haul Dray		\$119	\$0	\$119	(\$114)	\$5
Bulk		\$178	\$0	\$178	(\$113)	\$65
Auto		\$214	\$22	\$236	(\$115)	\$121
Total		\$1,628	\$3,249	\$4,877	(\$1,030)	\$3,847

²¹ Ibid.

Exhibit PB2.8: Scenario 3 Variant of Hunt Verified Statement Exhibit 8-1 considering UP-NS and a hypothetical BNSF-CPKC-CSX merger²²

Original Exhibit 8-1 on top, changes in the middle, and revised UP-NS diversions revenue estimates on the bottom. All values in millions of US dollars

	Estimated total annual revenue from UP-NS merger					
	R2R	T2R	Total	Offsets	Net revenue	
Merchandise		\$629	\$1,290	\$1,919	(\$414)	\$1,506
IM w/o LHD		\$558	\$2,076	\$2,633	(\$303)	\$2,330
Long-Haul Dray		\$119	\$0	\$119	(\$114)	\$5
Bulk		\$180	\$0	\$180	(\$114)	\$66
Auto		\$239	\$22	\$261	(\$123)	\$137
Total		\$1,724	\$3,388	\$5,113	(\$1,068)	\$4,044

	Estimated total annual reductions in UP-NS diversion revenue should BNSF-CPKC-CSX merge				
	R2R	T2R	Total	Offsets	Net revenue
Merchandise		(\$86)	(\$309)	(\$395)	\$25 (\$370)
IM w/o LHD		(\$148)	(\$992)	(\$1,140)	\$20 (\$1,120)
Long-Haul Dray		\$0	\$0	\$0	\$0 \$0
Bulk		(\$19)	\$0	(\$19)	\$10 (\$9)
Auto		(\$69)	(\$6)	(\$76)	\$18 (\$57)
Total		(\$322)	(\$1,307)	(\$1,629)	\$74 (\$1,556)

	Estimated total annual revenue from UP-NS merger considering a BNSF-CPKC-CSX merger					
	R2R	T2R	Total	Offsets	Net revenue	
Merchandise		\$543	\$981	\$1,525	(\$389)	\$1,136
IM w/o LHD		\$409	\$1,084	\$1,493	(\$283)	\$1,210
Long-Haul Dray		\$119	\$0	\$119	(\$114)	\$5
Bulk		\$161	\$0	\$161	(\$103)	\$58
Auto		\$169	\$16	\$185	(\$105)	\$80
Total		\$1,402	\$2,081	\$3,483	(\$995)	\$2,489

3.8. Public Benefit Impacts

The Verified Statement I submitted in connection with UP's and NS's Amended Application previously estimated that a UP-NS merger would deliver \$3.5 billion in annual shipper savings due to a shift of 2.1 million truckloads to rail each year.²³ This value would only increase if BNSF-CSX, CPKC-CSX, or BNSF-CPKC-CSX also were to merge. It would not decrease because any reduction in 2.1 million truckloads of traffic diverted to UP-NS would be offset by a corresponding increase in the amount of traffic that would be moved by other merged Class I railroads, still delivering lower single-line rail rates to shippers than with truck service. In fact, the number of shippers that could reduce logistics costs also would increase because any additional merger would create even more new single-line rail lanes, especially for T2R merchandise traffic.

²² Ibid.

²³ Hunt VS, Section 8.2.

4. PB-4: CGP Impact on Diversion/Benefits

STB Request

Confirm whether Applicants' diversion analysis and public benefit summaries reflect any impact from CGP.

The diversion analysis I performed for the Amended Application did not reflect any impact from Committed Gateway Pricing (CGP).²⁴

5. PB-6: Business, Commercial, and Pricing Changes

STB Request

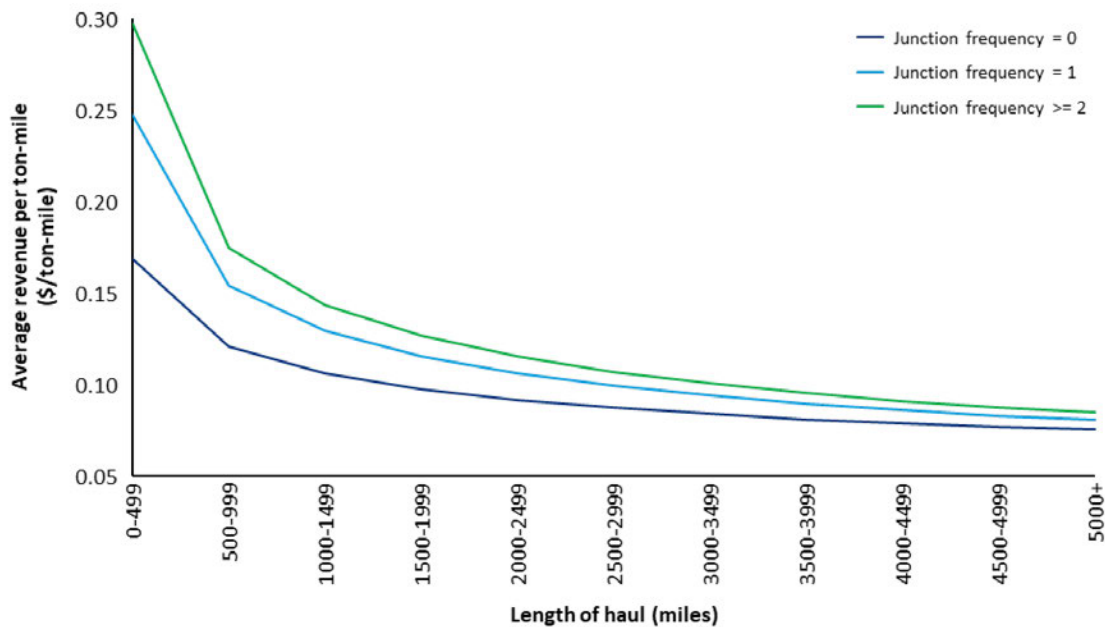
Beyond conversion of routes to single-line service, elaborate on the extent to which other changes to business or commercial strategies or practices, including pricing, are planned or modeled to achieve projected traffic diversions. Specify (a) the extent to which rate adjustments outside CGP are planned to achieve projected diversions and (b) the extent to which modeled revenue projections reflect any reduction in revenue per carload or other pricing adjustment for any shipper or group of shippers outside CGP.

My calculation that UP-NS would generate approximately \$4 billion in revenue from diverted traffic was based on the assumption that UP-NS would charge rates reflecting the provision of single-line service. My revenue calculations did not assume any changes to business or commercial pricing strategies or practices beyond what is observed in the data relating to reductions in rail-to-rail interchanges.

The R2R and T2R traffic diversion models reflect use of single-line pricing in projecting traffic diversions and revenues from those diversions. Section 3.2 of my prior Verified Statement demonstrated that single-line service is consistently priced lower on a revenue per ton-mile basis than interline service, across all lengths of haul. This is further demonstrated in Exhibit PB6.1 below, which contains a series of curves fit to the revenue per carload from the 2023 STB Confidential Carload Waybill Sample for a junction frequency (JF) of 0, 1, 2, or more. As the data shows, the average revenue per carload increases as the number of rail-to-rail interchanges increases with the JF 1 curve above the JF 0 curve, and the JF 2+ curve above the JF 1 curve.

²⁴ Hunt VS, Appendix E, Footnote 217

Exhibit PB6.1: Average revenue per ton-mile by junction frequency and length of haul²⁵



The R2R diversion model was calibrated using junction frequency as an independent variable. The model thus indirectly considers the impact reduced rail price has on market share, since the calibrated coefficients in the model reflect how fewer junctions historically show higher market shares. Junction frequency acts as a proxy for price, along with service quality and transit time, in the R2R model.²⁶

The T2R diversion model directly uses rail rates derived from the curves shown in Exhibit PB6.1 as an input when defining comparable archetypes for the look-alike model.

“The truck-to-rail model groups markets by distance and commodity type, and by transit-time and price differences relative to truck service. Where the UP-NS merger would create new single-line opportunities, the model matches those lanes to existing markets with similar service characteristics. These ‘lookalike’ or ‘archetype’ markets provide the observed shipper behavior used to forecast how the improved lane is likely to perform once mature.”²⁷

When I calculated the revenues associated with the diverted traffic, I used consistent assumptions about the revenues. That is, I calculated the \$4 billion estimated UP-NS revenue increase from diverted traffic using the lower rates associated with the reduction in railroads, and thus the lower junction frequencies, involved in the movement post-merger.²⁸ If UP-NS provided new single-line service for diverted traffic, regardless of whether the diversion was from rail or truck, then the estimated UP-NS revenue for that traffic was calculated as: *UP-NS miles x net tonnage x revenue per ton-mile by junction frequency*.

²⁵ Hunt VS, April 30, 2026, Exhibit B-32.

²⁶ Hunt, VS, April 30, 2026, Section 3.5, “Diversion Modeling of Price, Reliability, and Transit Time.”

²⁷ Ibid.

²⁸ Hunt VS, April 30, 2026, Exhibit 8-1.

The revenue per ton-mile was derived from historical data and considered the service type and commodity.

I reported in my Verified Statement that shippers switching from truck to new UP-NS single-line service would save an estimated \$3.5 billion annually in transportation costs.²⁹ Rail shippers switching from interline service to new UP-NS single-line service can expect to save an additional \$199 million per year, or an 11% reduction of their current rail price, based on historical differences between interline and single-line rail pricing.

Exhibit PB6.2: Rail shippers are estimated to save \$199 million annually by switching from interline to UP-NS single-line rail service³⁰

Values in millions of US dollars

Service Type	Pre-Merger Revenue	Post-Merger Revenue	Shipper Savings	Pct Savings	Avg LOH
General Merchandise	\$ 747	\$ 629	-\$ 118	-15.8%	1,319
Intermodal	\$ 582	\$ 558	-\$ 24	-4.2%	2,566
Bulk	\$ 218	\$ 180	-\$ 38	-17.6%	1,210
Assembled Autos	\$ 257	\$ 239	-\$ 18	-7.2%	2,018
Total	\$ 1,805	\$ 1,605	-\$ 199	-11.1%	

The estimates in Exhibit PB6.2 were obtained by starting with the R2R diverted traffic and adding one junction to the post-merger junction frequency. This reset the junction frequency to a pre-merger condition where UP and NS could only offer interline service. The price for the pre-merger interline route was calculated using the same methodology as the post-merger route, with the difference in pre- and post- revenue summing to the \$199 million in annual rail shipper savings. If a third carrier was involved (e.g., FEC to NS to UP), then the methodology compared a route with two interchanges pre-merger to a route with one interchange post-merger.³¹

6. MS-1: Impact on Competing/Alternative Routes

STB Request

For each route on which Applicants' combined market share will increase if the Transaction is approved, elaborate on the potential impact on competing or alternative routes, including whether those competing or alternative routes' viability may be jeopardized due to insufficient post-Transaction traffic.

6.1. Interpretation

Applicants asked Oliver Wyman to respond to the STB's Request MS-1, which we understood to require an analysis of the risk that non-Applicants would cease providing competitive or alternative service on Routes on which they are projected to lose traffic due to diversions by Applicants. In performing this analysis, we understood a "Route" to be an origin BEA/railroad combination to a destination BEA/railroad combination, broken out by STB service type, consistent with the definition used in the Verified Statement of Dr. Elizabeth Bailey,³² and consistent with the structure of the dataset I used for Exhibit E-2 in my Verified Statement that

²⁹ Hunt VS, April 30, 2026, Section 8.2, "Shipper Cost Benefits from Truck-to-Rail Diversions."

³⁰ Workpaper "HC-Revenue Calculation vFinal.xlsx_20260707.xlsx."

³¹ Ibid.

³² See Verified Statement of Elizabeth M. Bailey ¶ 125

addressed changes in market shares.³³ In the analysis, we also use the term “Location,” defined as an individual BEA/railroad combination. We understood the concept of “viability” being “jeopardized” to mean that a railroad would likely entirely cease serving a Route or Location as a result of post-merger traffic diversions.

6.2. Summary of Findings

Oliver Wyman’s analysis examines all Routes on which the Applicants' combined market share is projected to increase – and therefore on which competing carriers' market share is projected to decrease – across three service types: merchandise/bulk, intermodal, and automotive.

The analysis found only one current rail service to be at risk of loss of viability because of the projected diversions.

Supporting this conclusion are some additional observations from the traffic data and diversion results. I identified the Markets³⁴ where a more efficient UP-NS Route is projected to divert traffic from an existing rail Route. Examining the Routes³⁵ in these Markets identified UP-NS increased traffic on 3,993 existing and new Routes while traffic decreased on 4,331 existing, less-efficient Routes.³⁶ A similar comparison for all service types is shown in Exhibit MS1.1.

Exhibit MS1.1: Count of Routes increasing or decreasing traffic by service type³⁷

	Merch/Bulk	Intermodal	Automotive	Totals
UP-NS Routes with Gains	3,668	189	136	3,993
Existing Routes with Losses	3,840	333	158	4,331
Routes Unchanged	30,153	2,510	1,960	34,623
Total R2R Routes	37,661	3,032	2,254	42,947
Loss/Gain Ratio	1.05	1.76	1.16	1.08

The reason that the number of existing routes losing traffic exceeds the number of routes gaining traffic is illustrated in a Los Angeles BEA to Cincinnati BEA intermodal example in Exhibit MS1.2, where the UP-NS Route gains {{ }} units while three Routes (BNSF-CSXT, UP-CSXT, BNSF-NS) all show a decline in traffic.

³³ Hunt, VS, Appendix E. This supplemental response is based on workpaper “mkt_share.apdx_v26_e2_100pct” The dataset uses the same process and methodology as Exhibit E-2 in my Verified Statement, but for 100% of current state UP and NS traffic.

³⁴ “Market” is defined as origin BEA, destination BEA, service type

³⁵ “Route” is defined as origin BEA/railroad combination to a destination BEA/railroad combination, for a specific service type

³⁶ Workpaper “HC-MS-1_Route_Gain_Lost vFinal.xlsx” Tab “Pivot”

³⁷ Ibid.

Exhibit MS1.2: R2R traffic diversion results for Los Angeles-Riverside-Orange County, CA-AZ BEA to Cincinnati-Hamilton, OH-KY-IN BEA intermodal diversions³⁸

Origin BEA	Origin RR	Destination BEA	Dest. RR	Base Traffic	Change in Traffic	Projected Traffic
Los Angeles	BNSF	Cincinnati	CSXT	{{ }}	{{ }}	{{ }}
Los Angeles	UP	Cincinnati	CSXT	{{ }}	{{ }}	{{ }}
Los Angeles	UP	Cincinnati	NS	{{ }}	{{ }}	{{ }}
Los Angeles	BNSF	Cincinnati	NS	{{ }}	{{ }}	{{ }}

As the example illustrates, the diversion model projects what can be expected in the real world when introducing new single-line service in a Market. Applicants will gain share as they transform interline movements into new UP-NS single-line movements. Applicants will divert traffic from UP-CSX and BNSF-NS interline movements to the new UP-NS single-line service. Applicants will also capture traffic currently moving on BNSF-CSX interline Routes by offering a superior single-line alternative.

Although there are a large number of Routes with traffic reductions due to diversions, these are scattered across the U.S. and mostly involve the other Class I railroads. While lost traffic is a concern to any railroad, the overall impact is a small fraction of the total traffic on these carriers. CSX is projected to have the largest loss of any Class I at 4% of its 2023 traffic, while CN is projected to have the smallest loss at 0.6% of its 2023 U.S. traffic.

Exhibit MS1.3: R2R traffic diversion estimated impact on other Class I carriers³⁹

Carrier	Carload Diversion	Intermodal Diversions	Total Carloads/Units	2023 Total Carloads Carried ⁴⁰	Pct Div of Total
BNSF	-92,000	-213,000	-305,000	9,003,000	-3.4%
CSX	-95,000	-149,000	-244,000	6,063,000	-4.0%
CPKC ⁴¹	-17,000	-7,000	-24,000	2,296,000	-1.0%
CN ⁴²	-13,000	0	-13,000	2,359,000	-0.6%

R2R traffic diversions are spread across numerous Routes and the overall impact on Class I railroads is relatively modest, as demonstrated in Exhibits MS1.1 through MS1.3. However,

³⁸ Workpaper “HC-MS1_Service Viability_vFinal.xlsx,” Tab “RoutesWFlags” filtered for (origin_code = 160, dest_code = 49, serviceType = ‘Intermodal’).

³⁹ Hunt, Verified Statement, Exhibit 6-2, April 30, 2026. Table is adjusted to include total carloads and diversion percentage. Diversion values adjusted to account for errata.

⁴⁰ Analysis of Class I Railroads 2023, Association of American Railroads, Line 713, Total Carloads Carried. US total is 34.6 million, which will including double counting. Total includes carloads and intermodal box (rather than intermodal railcars).

⁴¹ CPKC is the sum of KCS and SOO (CP). This is only the U.S. traffic and excludes intra-Canada and intra-Mexico traffic. Adding SOO (CP) and KCS likely double counts some traffic.

⁴² CN is GTC(CN) and is only the U.S. traffic, excluding intra-Canada traffic

there are some Locations⁴³ where the percentage of diverted traffic may be more significant for both Class I and non-Class I railroads.

While the Board’s request is whether a “routes’ viability may be jeopardized” due to traffic diversions⁴⁴, my analysis focused on Locations because a low individual Route volume does not signal that a Route is at risk. Railroads currently serve large numbers of very low-volume Routes today, because many small flows are consolidated into economic movements. What determines whether rail service is viable is the aggregate volume at the yard, terminal, ramp or service area through which a Route is served. This analysis therefore assesses a Route’s viability indirectly; through the viability of the two Locations it connects; a Route remains viable so long as the Locations at both its origin and destination remain viable. Section 6.3.4 provides more details and analysis on this topic.

Additionally, attempting to perform a Route-level analysis requires knowledge of the exact routing used, including all intermediate yards and interchange Locations. This level of detail is not known without having the complete service design plan for every railroad, including assumptions about how future traffic might move. Using the Los Angeles to Cincinnati example in Exhibit MS1.2, BNSF-CSX interchanges a portion of the traffic at Chicago and a portion at St. Louis. If the {{ }} estimated diversions were removed from a Route, it is unclear which physical lines would be impacted since BNSF-CSX may opt to consolidate the remaining traffic through one gateway or may opt to continue using multiple gateways.

I therefore decided the best method for addressing the Board’s request was to focus on the Locations at either end of a Route. If a Location loses traffic such that it is in jeopardy of closing, then the Routes connect to that Location also could become jeopardized.

Applying Location-level screening criteria derived from both operational service requirements and the statistical distribution of volumes at which railroads actively operate facilities today, the analysis identifies no Location across any service type where projected post-merger traffic diversions reduce volumes to a level that would threaten continued railroad service. This holds across all three service types:

- For **merchandise/bulk**, no Location served by a competing carrier experiences a projected volume decline sufficient to threaten the viability of local train service to that area.
- For **intermodal**, no terminal operated by a competing carrier is projected to lose sufficient volume to place its continued operation at risk.
- For **automotive**, no automotive ramp operated by a competing carrier is projected to experience volume losses sufficient to threaten ramp viability.

As a supplementary check beyond the formal screening criteria, all Locations experiencing a projected volume decline of 30% or more were individually reviewed, regardless of minimum volume threshold considerations. Five such Locations in the US were identified and one route is flagged for potential service viability from this supplementary check.⁴⁵ Of these five Locations:

⁴³ “Location” defined as a yard, terminal, ramp or service area

⁴⁴ STB Decision 21, MS-1, Impact on Competing/Alternative Routes

⁴⁵ Five locations in Canada and Mexico met the screening criteria but are considered false positives because the underlying dataset captures only cross-border U.S. traffic and therefore materially understates the true traffic volumes at those locations.

- One (CFE at Fort Wayne, IN) realizes a post-merger decline in automotive volumes may jeopardize viability of the railroad’s westbound route to Chicago
- One (San Antonio, TX) retains post-merger volumes comfortably within the viable operating range
- Two (Charleston, SC and Rochester, NY) operate at pre-merger volumes within the exclusion band (roughly one carload per month) consistent with opportunistic or incidental movements rather than a core service offering, and
- One (El Paso, TX) reflects a waybill data anomaly, as FXE does not operate service points in the US.

As a sensitivity check, Locations experiencing a projected volume decline between 20% and 30% also were identified. Seven additional Locations were flagged similar to the Locations listed above. No material threats to the post-merger viability of these Locations were identified. See Section 6.8 for further details.

Sections 6.3 through 6.8 below describe the methodology and supporting analysis used to address MS-1 as well as the confirmatory checks that Oliver Wyman conducted.

6.3. Analytical Approach

6.3.1. Data Foundation

The primary dataset for the viability risks analysis is the 100pct Appendix E-2 exhibit dataset, which provides BEA-to-BEA traffic data by railroad and STB service type.⁴⁶ In this document:

- Actual volumes are sourced directly from the Class I and STB-provided waybill data, as embedded in the E-2 dataset; and
- Projected volumes adjust actual volumes based on the Oliver Wyman diversion model⁴⁷ (i.e., projected volume = actual volume + diversions, where diversions may be positive or negative for a given Route), as embedded in the E-2 dataset.

Volumes are expressed in loaded net tons; revenue empty flows are excluded as they are operationally dependent on loaded moves. The base year for all analysis is 2023.

6.3.2. Service Type Classification

Analysis is conducted separately for three service types, based on the definitions in the STB Carload Waybill Sample.⁴⁸ Merchandise and bulk traffic are consolidated into a single category.

- **Merchandise/bulk:** carload freight, including manifest merchandise and bulk commodity traffic
- **Intermodal:** trailer-on-flatcar and container-on-flatcar traffic moving between intermodal terminals

⁴⁶ Workpaper “apdx_v26_e2_100pct.csv”

⁴⁷ Hunt VS.

⁴⁸ Service type uses the Board definition found in the STB 2023 Confidential Carload Waybill Sample Reference Guide, March 5, 2025, Railinc, p. 63.

- **Automotive:** finished vehicle traffic moving in multilevel railcars between automotive ramps

6.3.3. Key Definitions

The following terms are used:

- **BEA:** Bureau of Economic Analysis economic area. BEAs are used as the geographic unit of analysis because the E-2 dataset aggregates origins and destinations to this level. A BEA typically encompasses a metropolitan area and its surrounding economic hinterland. Because a single BEA may contain multiple railroad facilities (or, conversely, a single facility or service area may span BEA boundaries), BEA is an imperfect proxy for individual terminals, ramps, or service areas. This limitation is accounted for in the viability screening criteria in Section 6.4.
- **Route:** An origin BEA/railroad combination to a destination BEA/railroad combination, for a specific service type.
- **Location:** An individual BEA/railroad combination for a specific service type – i.e., a specific railroad’s presence within a BEA.
- **At risk:** A Route or Location where projected post-merger volume meets the applicable screening criteria defined in Section 6.4.
- **Opportunistic service:** Routes or Locations operating below the applicable exclusion band (see Section 6.4) on a pre-merger basis. These are assumed to continue receiving service regardless of further volume reductions, as the carrier has demonstrated a willingness to serve them at below-threshold volumes.
- **Rubber tire interchange:** The transfer of intermodal units from one set of railcars to another at an interchange or gateway point, enabling re-consolidation of small-volume flows with larger consolidated movements. Rubber tire interchange allows railroads to provide intermodal service on Routes where individual Route volumes are too small to support a dedicated direct block.

6.3.4. Viability Assessment Framework

Viability risk could in principle be assessed along either of two dimensions:

- **Location viability risk:** whether a specific Location loses sufficient total volume to create the risk that the railroad would cease operations there entirely. If a Location becomes unviable, all Routes originating or terminating there are necessarily at risk.
- **Route viability risk:** whether an individual Route loses sufficient volume that origin-to-destination service would be discontinued, independent of the viability of its endpoints.

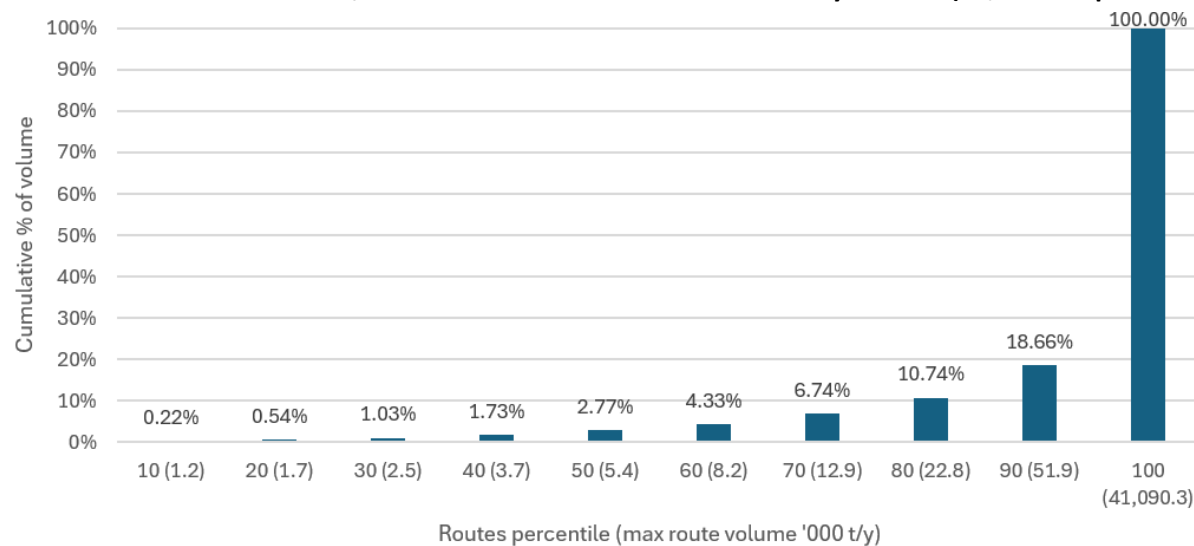
Oliver Wyman’s model applies the viability screen at the Location level rather than the Route level because a low individual Route volume does not signal that a Route is at risk. As the charts below show, railroads already serve large numbers of very low-volume Routes today, because they consolidate many small flows into economic movements. Route volume is therefore not a reliable basis for a viability screen. What determines whether rail service continues is instead the aggregate volume at the yard, terminal, ramp or service area (Location) through which a Route is served. This analysis therefore assesses a Route’s viability indirectly, through the viability of the

two Locations it connects; a Route remains viable so long as the Locations at both its origin and destination remain viable.

This analytical approach reflects the network economics of railroading. Rather than serving each origin-destination pair with dedicated capacity, railroads aggregate traffic at yards and terminals, move it through intermediate switching and gateway handling points, and – in the case of intermodal – re-consolidate small flows through rubber tire interchanges. A Route that carries little traffic on its own is part of a larger economic movement, and its standalone volume reveals little about whether service will be worth continuing. Historic Route-volume distributions bear this out.

The following charts show, for each service type, the cumulative distribution of Routes by volume. The horizontal axis groups Routes by size (the value in parentheses is the maximum net tons per year in each grouping, in thousands), and the vertical axis shows the cumulative share of total net tons represented at or below each grouping.

Exhibit MS1.4: Merchandise/bulk Routes: cumulative distribution by volume (33,752 unique Routes)⁴⁹



⁴⁹ Workpaper “HC-MS1_Service Viability_vFinal.xlsx, Tab “RoutesPercentiles.”

Exhibit MS1.5: Intermodal Routes: cumulative distribution by volume (2,932 unique Routes)⁵⁰

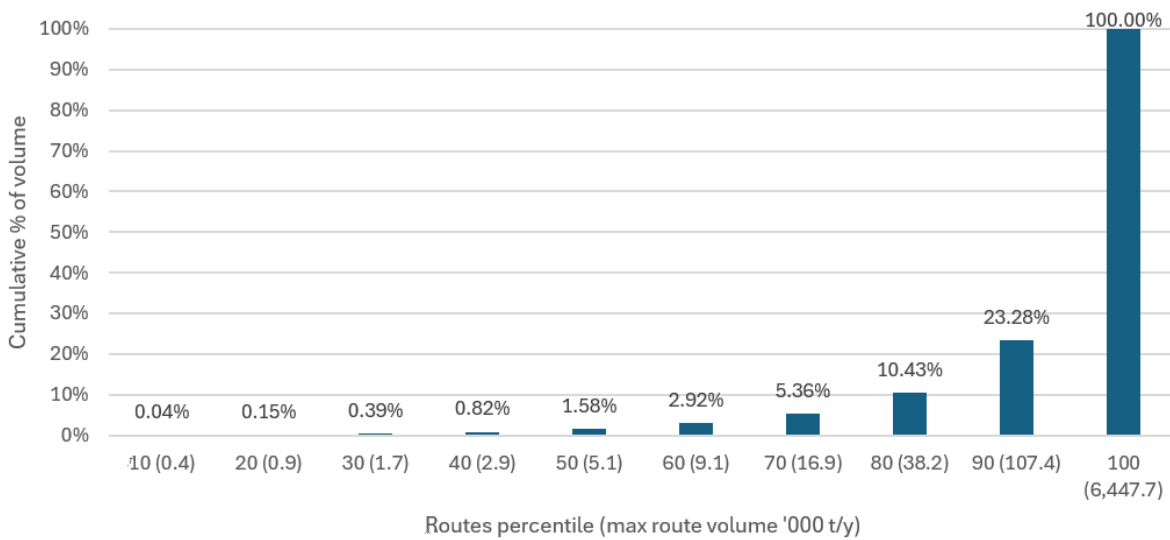
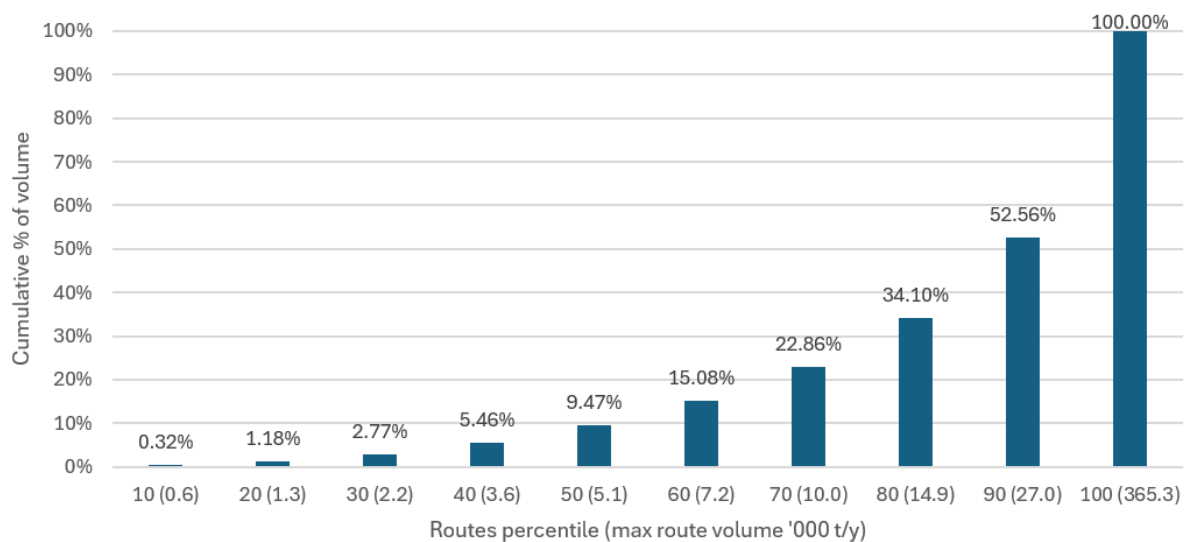


Exhibit MS1.6: Automotive Routes: cumulative distribution by volume (2,097 unique Routes)⁵¹



The pattern is consistent across all three service types. For merchandise/bulk, the lowest-volume 50% of the 33,752 active Routes together carry under 3% of total volume, and the distribution shows no distinct break point that would mark a natural viability cutoff. Intermodal shows the same long tail of low-volume activity. The lowest-volume 50% of its 2,932 Routes carry under 2% of the traffic. Automotive is only modestly less skewed, with the lowest-volume 50% of its 2,097 Routes carrying just under 10% of traffic. In every case, thousands of Routes are actively and continuously served at volumes that are comparatively small. This is precisely what the network traffic consolidation mechanisms described above make possible.

⁵⁰ Ibid.

⁵¹ Ibid.

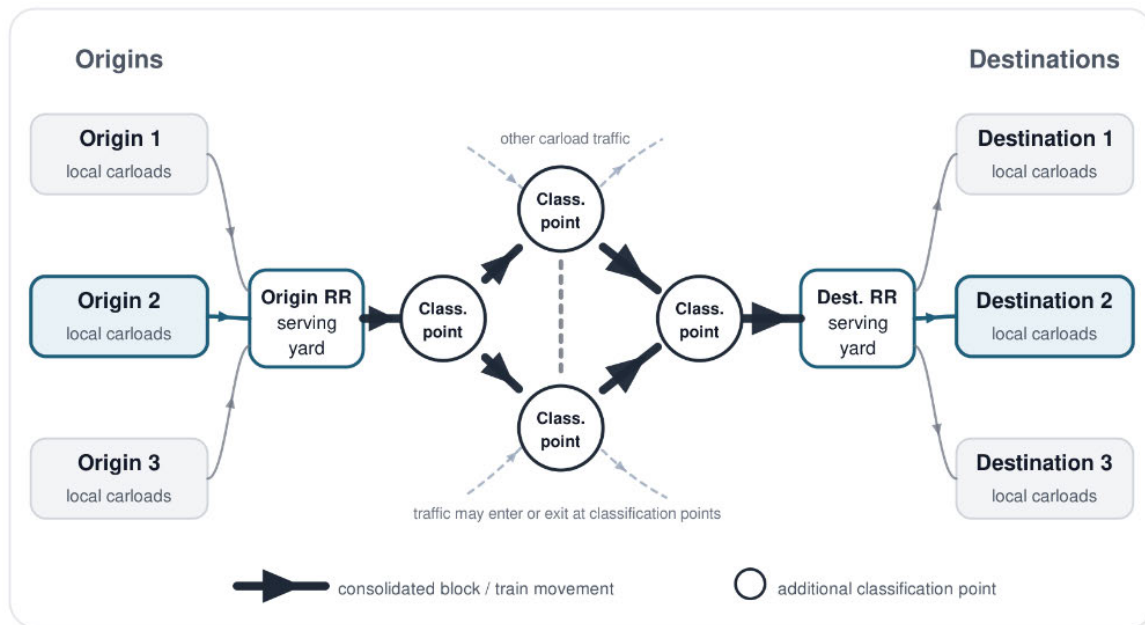
The conclusion is that individual Route volumes are not the operative driver of service for any service type. Accordingly, the viability screen focuses on Locations instead of Routes.

The way this Location-based logic applies differs somewhat by service type:

Merchandise/bulk – Merchandise service is organized around the consolidation of traffic at serving yards, with local trains providing pick-up and delivery across multiple customers within a geographic area. A volume decline on any single Route does not necessarily threaten service availability within that area; risk arises only when aggregate volumes across a whole branch line or local service area fall too low to support regular local train operations. The viability screen for merchandise/bulk therefore operates at the Location level rather than the Route level.

The process described above is depicted in the following diagram. In this example, a move from Origin 2 to Destination 2 might be quite small, but if there is sufficient other volume to serve every leg through the network, then there will be a pathway that is operationally and commercially viable to serve this Origin 2 to Destination 2 movement.

Exhibit MS1.7: Simplified example of merchandise network

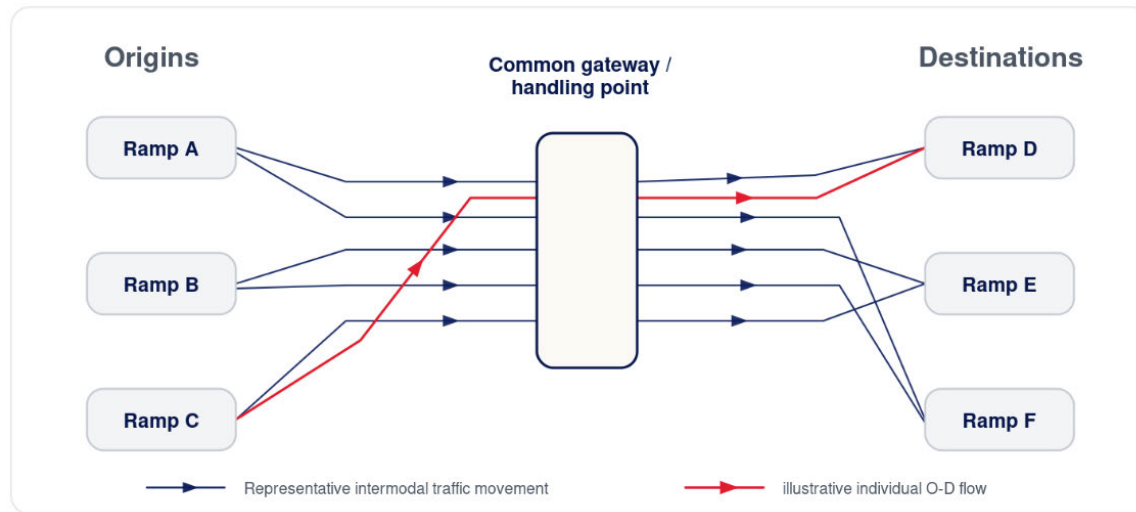


Intermodal service is offered on specific origin-destination pairs between terminals, and direct service may be withdrawn if Route volumes fall too low to support a dedicated block. However, through rubber tire interchange, gateway consolidation, and some intermediate switching, railroads routinely serve intermodal Routes at volumes well below any dedicated-block threshold, and this practice is expected to continue – which effectively removes Route viability from the assessment. Location risk arises only if aggregate terminal volumes fall too low to sustain even consolidated service. There is typically no more than one major intermodal terminal per railroad per BEA, except at major hubs such as Chicago, New York, and Southern California.

The process described above is depicted in the following diagram. In this example, all of the traffic movements shown are handled at a common intermediate point (e.g., Chicago). While the

highlighted move from Ramp C to Ramp D might be too low to justify direct service, as long as the volumes between each ramp and the common gateway are sufficient to justify ongoing service, there will be a commercially and operationally viable path for the C to D traffic. In the case of intermodal, the shipment might undergo a “steel wheel” switch or a crosstown dray (rubber tire interchange) between trains.

Exhibit MS1.8: Simplified view of intermodal traffic



Automotive service uses dedicated multilevel blocking but moves those blocks primarily via general merchandise and intermodal trains, with more intermediate switching than intermodal. It therefore behaves like the merchandise network, in that ramp Location volumes are the primary viability driver, and the assessment accordingly focuses on Locations. There is typically no more than one major automotive ramp per railroad per BEA, except in major manufacturing areas such as Eastern Michigan.

Going back to Exhibit MS1.7 depicting how merchandise traffic moves, if we remove the notion of the serving yards, so that the origins and destinations feed directly into the core network, this diagram would reasonably represent the automotive service network. As with merchandise, if there is sufficient volume on each leg of this network to justify ongoing service, the moves between any origin and destination within this network will be operationally and commercially viable.

The specific screening parameters applied to Locations are set out in Section 6.4. Locations in Canada and Mexico were excluded from the screening assessment due to the U.S. focus of STB’s proceeding and because intra-Canada and intra-Mexico traffic is not captured in the E-2 data and therefore the impact of diversions on those Locations cannot be reliably assessed. For transparency, however, Section 6.8 includes discussion of Canadian and Mexican Locations showing significant projected traffic declines.

6.4. Viability Screening Criteria

To determine the viability of a Route using Location data, we must first establish a set of rules or screening criteria for flagging potentially at-risk Locations. To do this, Oliver Wyman undertook two complementary analyses: (1) a conceptual derivation of what volumes operational logic would suggest are necessary to sustain service based on direct observation for intermodal and automotive, and operational requirements for merchandise/bulk, and (2) a statistical examination of actual historic volumes at which railroads currently operate Locations across all three service types. The two analyses are then reconciled into practical screening criteria to be applied in this analysis.

The analysis reveals that, for all three service types, railroads actively serve large numbers of Locations at volumes far below any observational or operationally derived conceptual threshold. This reflects the network economics of railroad operations, where consolidation, interchange, and intermediate handling allow efficient service even at low individual Route volumes.

Given these findings, and as Section 6.5 through 6.8 further explain, screening criteria were structured in three bands for each service type:

- **Exclusion band (below lower bound):** Locations with pre-merger volumes below the lower bound are treated as statistical outliers – likely artifacts of the BEA geographic proxy, data errors, or genuinely one-off movements – and are excluded from the at-risk analysis. I set this measure for intermodal and automotive at the maximum net tons handled by any of the smallest Locations that in total represent 1% of total tonnage handled. For merchandise/bulk, with its ability to handle a broader range of small Locations, and to account for approximately ~50% of tonnage moving in bulk Routes with very large volumes per Route, the cutoff is set at 0.5%. This approach yielded the following values:⁵²

Service Type	Percentile Applied	Maximum Location Size (net tons/year)
Merchandise/Bulk	0.5%	217,111
Intermodal	1%	84,148
Automotive	1%	31,099

- **Upper band (above upper threshold):** Locations with pre-merger volumes above the upper threshold are treated as viable over the long term and are flagged as at risk only if projected post-merger volume falls below the upper threshold and the volume decline is 30% or more. The 30% measure was used to screen out more modest decreases that happen to cross the upper band threshold but remain viable relative to both the lower band threshold and based on the historic distribution of volumes. In the case of the intermodal and automotive service types, this percentage also ensures that the post-diversion volume will always be comfortably above the lower band threshold. For merchandise/bulk, this upper threshold is largely aligned with the conceptual threshold developed. For intermodal and automotive, this threshold is based on an examination of known smaller intermodal and automotive facilities.

⁵² Workpaper “HC-MS1_Service Viability_vFinal.xlsx” Tab “CutoffValues.”

- **Middle band (between lower and upper bounds):** Locations in this band appear to be viable based on their presence in the historic data. Given the broad range of observed volumes, there is no clear viability cutoff point for this traffic. As a result, these Locations are flagged as at risk if the projected volume decline is 30% or more, without requiring a specific volume threshold to be crossed. This percentage was selected both to be consistent with the upper band analysis, and as conservative measure of impact that would allow more “severely impacted” Locations to be identified.

The end result is that the viability risk analysis uses the following criteria for flagging potential at-risk Locations:

Exhibit MS1.9: Thresholds for Location viability (net tons/year)⁵³

Band/Criteria	Merchandise/ Bulk	Intermodal	Automotive	Action
Exclusion band – any Location with historic volume below this threshold	202,000	84,148	31,099	Excluded from analysis as statistical anomalies or opportunistic service
Middle band – any Location with historic volume in the range shown that drops by more than 30%	N/A	84,148 to 150,000	31,099 to 60,000	Flagged as at risk
Upper band – any Location with historic volume above this threshold that drops below the threshold and also drops by more than 30% overall	202,000	150,000	60,000	Flagged as at risk

6.5. Merchandise/Bulk

6.5.1. Conceptual Merchandise Location Threshold

A conceptual threshold for a given Location can be derived from the minimum conditions needed to sustain regular local train service to a geographic service area:

Conceptual Location threshold: ~2,000 loaded cars/year (~202,000 net tons/year)⁵⁴

These threshold values are derived from:

- 2 local train movements per week (minimum frequency for regular service)
- 20 loaded cars per movement (minimum productive local train size)
- 50 operating weeks per year (accounting for holidays and maintenance)
- ~101 net tons per car (waybill-based average for merchandise/bulk)⁵⁵

⁵³ Workpaper “HC-MS1_Service Viability_vFinal.xlsx” Tab “Thresholds.”

⁵⁴ Note: $2 \times 20 \times 50 = 2,000$ cars/year. At 101 net tons/car: ~202,000 net tons/year.

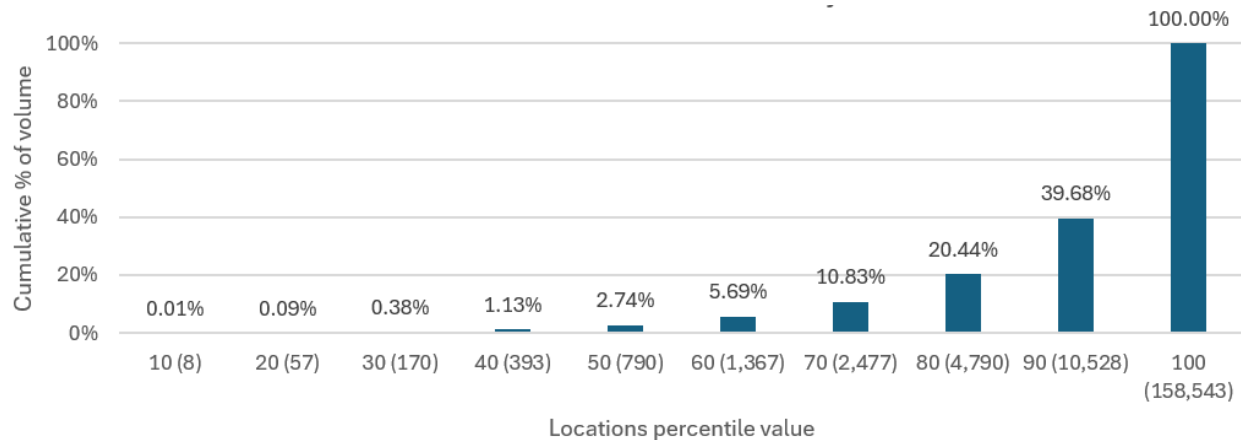
⁵⁵ Workpaper “HC-MS1_Service Viability_vFinal.xlsx, Tab “Thresholds.”

6.5.2. Statistical Analysis of Actual Merchandise Location Volumes

Examination of actual merchandise/bulk Location volumes in the E-2 dataset reveals a wide distribution, with large numbers of Locations actively served at volumes well below the conceptual threshold. The percentile distribution of net tons per year by Location is shown in Exhibit MS1.10.

Exhibit MS1.10: Merchandise/bulk: cumulative distribution of Locations by volume⁵⁶

Note: numbers in parentheses are maximum net tons/year for grouping in thousands



Merchandise/bulk Locations show a large population of small-volume active Locations. Approximately 31% of the 788 active merchandise/bulk Locations operate below 202,000 net tons/year (the conceptual threshold). Inasmuch as Locations are assessed at the BEA level and a BEA is typically larger than an actual railroad service area, the 31% figure is likely an undercount of merchandise/bulk Locations operating below the 202,000-ton level. These lower traffic Locations collectively account for only approximately 0.8% of total merchandise/bulk volume.

Given that for merchandise/bulk the bottom 0.5% of total traffic represents all Locations with a volume of 217,000 net tons/year or less, and the alignment of this value with the 202,000 net tons/year from the conceptual framework, I adopted a single measure for merchandise/bulk Locations with a value of 202,000 net tons/year, with Locations below the threshold of 202,000 excluded from the analysis.

6.6. Intermodal

Intermodal service is organized around direct terminal-to-terminal service. There is typically no more than one major intermodal terminal per railroad per BEA; for analytical purposes, each BEA/railroad combination is treated as having one terminal. All Routes originating or terminating at a flagged Location are considered at risk due to Location depletion.

⁵⁶ Workpaper “HC-MS1_Service Viability_vFinal.xlsx” Tab “LocationsPercentiles.”

6.6.1. Conceptual Intermodal Location Threshold

Conceptual Location threshold: ~10,000 intermodal units/year (~150,000 net tons/year)

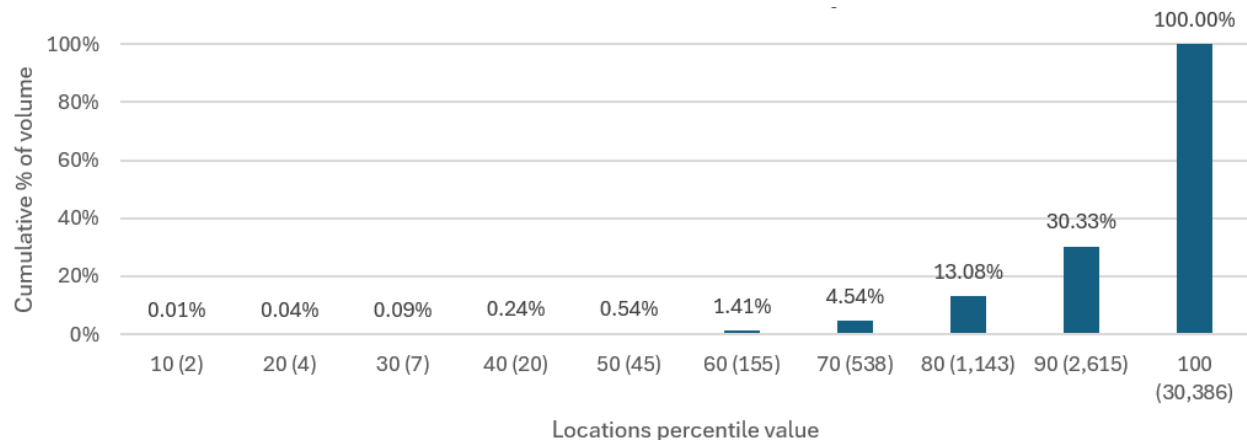
Examination of the data reveals that intermodal facilities are operated at relatively low volumes. By reviewing the historical data, I found a number of viable Locations reported to be operating at approximately 10,000 to 20,000 lifts per year (loaded and empty). If all loaded, 10,000 lifts/year translates to 150,000 net tons/year at 15 net tons per unit.⁵⁷ For example, the following {{ facilities fall into this category: {{ Based on this evaluation, I set the conceptual upper threshold at 150,000 net tons/year.

6.6.2. Statistical Analysis of Intermodal Location Volumes

Examination of the 308 active intermodal Locations in the E-2 dataset reveals the following percentile distribution, shown in Exhibit MS1.11.

Exhibit MS1.11: Intermodal: cumulative distribution of Locations by volume⁵⁸

Note: numbers in parentheses are maximum net tons/year for grouping in thousands



Intermodal Location volumes show a stepped distribution driven by major terminal clusters (Los Angeles, Chicago, etc.), with a large tail of smaller Locations. Approximately 59% of the 308 active intermodal Locations operate below 150,000 net tons/year (the conceptual threshold) when evaluated at the BEA level. These Locations collectively represent less than 1.4% of total intermodal volume.

For intermodal, the bottom 1% of total traffic represents all Locations with a volume of 84,148 net tons/year or less. The lower threshold is therefore set at 84,148 tons/year. Locations below this volume were excluded from the analysis. The upper threshold was set at 150,000 net tons/year.

6.7. Automotive

Automotive service operates between dedicated ramps using specialized multilevel railcar equipment. There is typically no more than one major automotive ramp per railroad per BEA. As

⁵⁷ Workpaper “HC-MS1_Service Viability_vFinal.xlsx” Tab “Thresholds.”

⁵⁸ Workpaper “HC-MS1_Service Viability_vFinal.xlsx” Tab “LocationsPercentiles.”

discussed earlier, only Location dimensions are assessed in this analysis. All Routes originating or terminating at a flagged Location are considered at risk due to Location depletion.

6.7.1. Conceptual Location Threshold

Conceptual Location threshold: ~3,000 multilevel cars/year (~60,000 net tons/year)

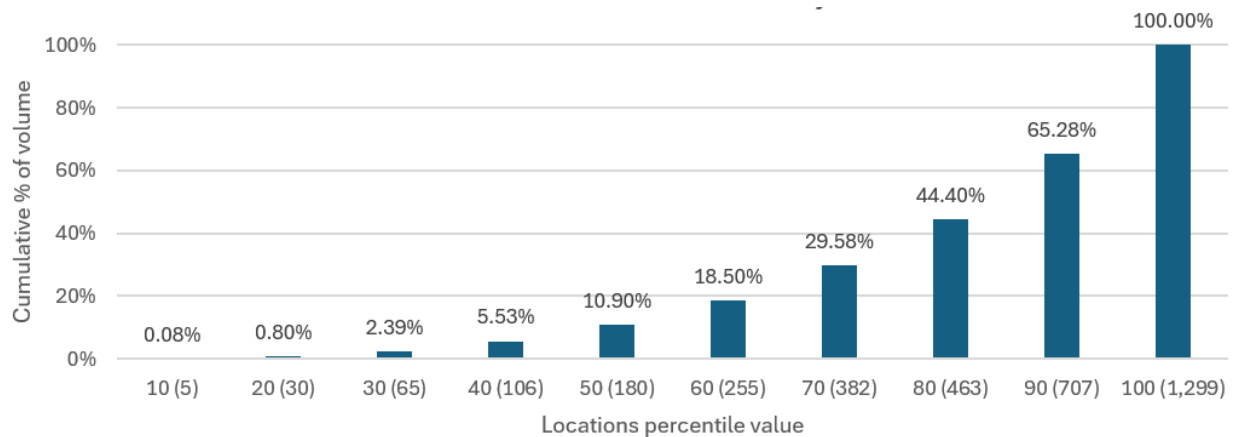
As with the intermodal Location threshold, the automotive Location threshold is anchored to the observed lower bound of actively operated ramps. Smaller {{UP}} ramps (e.g., {{ handle approximately 2,500–3,500 multilevel cars per year based on waybill data, yielding a reference upper threshold of ~3,000 cars/year (~60,000 net tons/year at ~20 net tons/car⁵⁹).

6.7.2. Statistical Analysis of Actual Automotive Location Volumes

Examination of the 164 active automotive Locations in the E-2 dataset reveals the following percentile distribution.

Exhibit MS1.12: Automotive: cumulative distribution of Locations by volume⁶⁰

Note: numbers in parentheses are maximum net tons/year for grouping in thousands



Automotive Location volumes have a broad distribution with a significant tail of smaller Locations. Approximately 30% of the 164 active automotive Locations operate below 60,000 net tons/year (the conceptual threshold) when evaluated at the BEA level. These Locations collectively represent less than 2.4% of the total automotive volume.

For automotive, the bottom 1% of total traffic represents all Locations with a volume of 31,099 net tons/year or less. Based on this, and my knowledge of viable smaller auto Locations, the lower threshold is set at 31,000 tons/year, with Locations below this volume excluded from the analysis. The upper threshold was set at 60,000 net tons/year.

6.8. Locations at Risk

Of all the Locations screened, only one current rail service was identified as at risk based on projected volume changes. Details of the Location and Route screening review are provided in

⁵⁹ Workpaper “HC-MS1_Service Viability_vFinal.xlsx” Tab “Thresholds.”

⁶⁰ Workpaper “HC-MS1_Service Viability_vFinal.xlsx” Tab “LocationsPercentiles.”

Section 6.8.1 and details on the service at risk – Chicago, Fort Wayne and Eastern Railroad automotive service to Chicago – are in Section 6.8.2.

6.8.1. Locations at Risk

Additional review of Locations with a significant volume decrease was performed to identify any near-misses in the screening process and ensure they should not be deemed as at risk. We identified 10 Locations showing projected volume drops of more than 30%, with an additional seven showing projected volume drops of between 20% and 30%. The 30% value was selected to be consistent with our general screening criteria, and the 20% value was used to provide an additional sensitivity check. The resulting near misses are shown below, divided into three tables – one for US Locations with a 30% or greater drop, one for the US Locations added in the sensitivity check, and one for Locations in Mexico and Canada.

Exhibit MS1.13: US Locations with volume losses greater than 30%⁶¹

Service Type	BEA Name	Country	Carrier	Class I railroad?	Actual tons	Projected tons	Relative change
Merch/Bulk	Charleston-North Charleston, SC	US	PR	N	{{ }}	{{ }}	-100.0%
Merch/Bulk	Rochester, NY-PA	US	BPRR	N	{{ }}	{{ }}	-46.7%
Merch/Bulk	El Paso, TX-NM	US	FXE	N	{{ }}	{{ }}	-42.7%
Automotive	Fort Wayne, IN	US	CFE	N	{{ }}	{{ }}	-34.7%
Automotive	San Antonio, TX	US	BNSF	Y	{{ }}	{{ }}	-30.8%

The three merchandise/bulk locations listed in Exhibit MS1.13 are not valid losses and arise due to the limitations of the input data to this analysis. The San Antonio automotive location remains viable due to its significant on-going volumes. The details by location are as follows:

- Charleston:** Palmetto Railways (PR) operates primarily as a switching carrier on behalf of both CSX and NS serving various port, automotive, and industrial sites. The 100% waybill database shows less than 1,200 net tons of traffic for the PR for 2023, about 12 carloads per year. At the same time, the PR reported handing 65,000 carloads in 2018, growing to 90,000 by 2024.⁶² The likely discrepancy is that CSX or NS are shown as the originating/terminating carriers for these shipments on the waybill, not the PR. Overall, this BEA shows over 14 million net tons of merchandise/bulk traffic originating/terminating in 2023, with the majority being handled by CSX. Under the merger forecast, CSX is shown as losing about 2% of this traffic to the UP-NS, some of which is likely switched by the PR. Overall, it appears that the 100% waybill data massively under represents the PR volumes, and that the small shifts between CSX and UP-NS should not have a material impact on the PR. It is possible that there will be virtually no impact at all on the PR as it will simply switch this diverted traffic on behalf of the UP-NS instead of for CSX.

⁶¹ Workpaper “MS1_Service Viability_vFinal.xlsx” Tab “LocationsWFlags.”

⁶² Progressive Railroading, “Palmetto Railways counts on intermodal facility, industrial park to boost carloads” (Palmetto Railway.pdf); Progressive Railroading, “Short-line traffic in 2025: More good than bad or ugly” (Short line traffic 2025.pdf)

- **Rochester:** As a location, Rochester is not served by the Buffalo & Pittsburgh Railroad (BPRR). This traffic should have been assigned to the Buffalo-Niagara Falls BEA, which is projected to have no material loss of traffic due to the proposed merger. Thus, this case is strictly a result of the limitations of the data used for the analysis.
- **El Paso:** Ferromex (FXE) operates strictly in Mexico, so El Paso is a BEA not served by FXE. This entry arises from a single Route that interchanges to the FXE at El Paso for which the final station in Mexico is unknown. The result is the assignment of this traffic to El Paso. Thus, this is not a valid loss and is strictly a result of the limitations of the waybill data used for the analysis.
- **San Antonio:** Both BNSF and UP serve San Antonio and have interchanges to both NS and CSXT. There are eight Routes where diversions occur and move to a single-line UP-NS service. None of the Routes go to zero and all of them continue to move through existing large volume interchange points with substantial volumes that will continue to be viable post-merger. BNSF remains well above the 60,000 tons/year upper band value for automotive, so this location is not at risk.
- **Fort Wayne:** Diversions from the Chicago, Ft. Wayne & Eastern Railroad (CFE) at Fort Wayne, IN could place this line at risk. Further analysis is presented in Section 6.8.2.

So, in summary, the viability the San Antonio auto facility is not threatened, and the three merchandise/bulk Locations are not “real” issues due to the limitations of the data being used. CFE is the only identified route facing a legitimate risk.

By lowering the threshold to a 20% volume loss as a sensitivity analysis, an additional seven Locations were identified.

Exhibit MS1.14: US Locations with volume losses between 20% and 30% (sensitivity analysis)⁶³

Service Type	BEA Name	Country	Carrier	Class I railroad?	Actual tons	Projected tons	Relative change
Merch/Bulk	Toledo, OH	US	BNSF	Y	{{ }}	{{ }}	-26.0%
Merch/Bulk	Washington-Baltimore, DC-MD-VA-WV-PA	US	TPR	N	{{ }}	{{ }}	-25.1%
Intermodal	Toledo, OH	US	BNSF	Y	{{ }}	{{ }}	-23.6%
Automotive	New York-No. New Jer.-Long Island, NY-NJ-CT-PA-MA-VT	US	CSXT	Y	{{ }}	{{ }}	-23.4%
Merch/Bulk	Columbus, OH	US	CFE	N	{{ }}	{{ }}	-23.3%
Intermodal	Albany, GA	US	CSXT	Y	{{ }}	{{ }}	-22.2%
Merch/Bulk	Knoxville, TN	US	CSXT	Y	{{ }}	{{ }}	-20.8%

The Locations included as part of the sensitivity analysis, while projected to experience a moderate decrease in volumes, all either retain sufficient volumes to maintain service viability

⁶³ Workpaper “MS1_Service Viability_vFinal.xlsx” Tab “LocationsWFlags.”

(three Locations: Toledo (intermodal), New York-New Jersey, and Knoxville), or are too small in actual volumes to be confidently evaluated for viability based on volumes alone (four Locations: Toledo (merchandise/bulk), Washington-Baltimore, Columbus, and Albany).

- **Toledo “BNSF”:** is served by a haulage agreement with CSXT.⁶⁴ Even with the predicted diversions, the remaining traffic from BNSF to this CSXT facility remains at {{419K}} net tons per year – well above the 150,000 net tons/year viability threshold. The facility itself services other traffic outside of this particular haulage agreement and remains viable post-merger.
- **Washington/Baltimore:** Tradepoint Rail (TPR) shows less than 40 car moves per year; likely is a result of the limitations of the 100% waybill data which substantially under-reports actual TPR volumes. TPR is a 2,400 car storage facility and provides local switching services to some local customers.⁶⁵ The diversions are related to the waybill routing on a small number of cars, when it is most likely that the services TPR is offering will not change if the rail routings change, and thus should be considered a false positive.
- **New York/New Jersey:** CSXT automotive volumes are projected to drop 23.4% at this Location but remaining annual net tons ({{ }}) remains above the 60,000 annual net tons per year viability threshold for the location.
- **Columbus:** CFE does not serve the Columbus area directly, but does publish a freight station for some stations in this BEA. Actual service is handled by its sister railroad the Indiana & Ohio Railway (IORY). The IORY handles hundreds of thousands of net tons in this BEA, with no meaningful impact projected from the UP-NS merger. The CFE volumes should be treated as part of the overall IORY volumes, and as a result this specific entry does not represent a valid at-risk Location.
- **Albany:** CSXT does not have an intermodal terminal in the Albany, GA area. This traffic is merchandise/bulk traffic, misclassified as intermodal. Given that CSX handles hundreds of thousands of net tons of merchandise/bulk traffic in this BEA, with no substantial losses due to the proposed merger, this entry does not represent a valid loss, and reflects the limitations of the available input data.
- **Knoxville:** while CSXT loses some volume at this Location, with a volume over three times the 150,000 net tons/year viability threshold for intermodal facilities, this Location’s viability is not threatened.

The five Locations in Mexico and Canada shown in Exhibit MS1.15 are likely false positives, as waybills and the E-2 dataset used for analysis only contain information about traffic moving into or out of the United States. This lack of data on real operations leads to a significant undercount of full actual and projected volumes at these non-US Locations, and thus to overestimation of projected relative decrease.

⁶⁴ BNSF, “BNSF Adds Service Between the PNW and Ohio” (BNSF Northwest.pdf); Freight Waves, “BNSF, CSX intermodal service will connect LA., Toledo (BNSF CSX intermodal Toledo.pdf)

⁶⁵ <https://www.tradepointatlantic.com/rail/> (Tradepoint Atlantic Privately Owned Railroad.pdf)

Exhibit MS1.15: Canadian and Mexican Locations with significant volume losses⁶⁶

Service Type	BEA Name	Country	Carrier	Class I railroad?	Actual tons	Projected tons	Relative change
Automotive	Queretaro, Mexico	Mexico	CPKC	Y	{{ }}	{{ }}	-100.0%
Automotive	Veracruz, Mexico	Mexico	FXE	N	{{ }}	{{ }}	-100.0%
Automotive	Queretaro, Mexico	Mexico	FXE	N	{{ }}	{{ }}	-82.3%
Intermodal	Ontario, Canada	Canada	CPKC	Y	{{ }}	{{ }}	-37.7%
Intermodal	Alberta, Canada	Canada	CPKC	Y	{{ }}	{{ }}	-33.4%

6.8.2. Projected Impact on Chicago, Ft. Wayne & Eastern Railroad (CFE)

In Fort Wayne, CFE serves inbound and outbound General Motors (GM) traffic while NS serves primarily outbound traffic from the GM Plant itself. The Diversions predict 2/3rds of the existing CFE outbound loads that interchange with UP today in Chicago would divert to NS post-merger. The remaining CFE traffic is still sufficient to support operation of the Fort Wayne automotive facility, and when combined with other traffic, a Chicago interchange service to UP, BNSF and other Chicago area railroads should remain viable, so all of the existing routes would remain viable post-diversion. However, this is a significant drop in outbound loads on CFE and does put this Route at risk.

As the main diversion on the CFE was for westbound traffic, we attempted to further examine the overall volumes the CFE would carry to Chicago for interchange across all carriers. We treated traffic to/from any of the following carriers as passing through Chicago: ALS, BNSF, CN, CPKC, DQE, FWR, FXE, KCTL, RCPE, TRAA, UP and WER. Based on this we developed the following estimates of pre-and post diversion traffic to Chicago:

Exhibit MS1.16: Estimated CFE Volumes to Chicago⁶⁷

Service Type	Base Tons	Base Cars / Platforms	Post UP-NS Projected Tons	Post UP-NS Projected Cars / Platforms
Automotive	{{ }}	{{ }}	{{ }}	{{ }}
Intermodal	{{ }}	{{ }}	{{ }}	{{ }}
Merch/Bulk	{{ }}	{{ }}	{{ }}	{{ }}

In order to estimate any associated empty moves, we also examined the traffic from Chicago:

Exhibit MS1.17: Estimated CFE Volumes from Chicago⁶⁸

Service Type	Base Tons	Base Cars / Platforms	Post UP-NS Projected Tons	Post UP-NS Projected Cars / Platforms
Automotive	{{ }}	{{ }}	{{ }}	{{ }}
Intermodal	{{ }}	{{ }}	{{ }}	{{ }}
Merch/Bulk	{{ }}	{{ }}	{{ }}	{{ }}

⁶⁶ Workpaper “MS1_Service Viability_vFinal.xlsx” Tab “LocationsWFlags.”

⁶⁷ Workpaper “MS1_Service Viability_vFinal.xlsx” Tab “CFE to Chicago.”

⁶⁸ Workpaper “MS1_Service Viability_vFinal.xlsx” Tab “CFE from Chicago.”

Based on the above, we estimated the westbound traffic to Chicago as follows:

Exhibit MS1.18: Estimated Car Counts (Loaded and Empty) to Chicago

Source of Traffic	Base Cars / Platforms	Post UP-NS Projected Cars / Platforms
Loaded Westbound Autos	{{ }}	{{ }}
Loaded Westbound Merch	{{ }}	{{ }}
Empty Auto Returns	{{ }}	{{ }}
Empty IM Returns	{{ }}	{{ }}
Empty Merch Returns	{{ }}	{{ }}
Total Westbound Cars	{{ }}	{{ }}

The above assumes that westbound empties for automotive brings the overall car flow into balance. For intermodal, lacking westbound movements, the eastbound intermodal equipment would return empty. For merchandise and bulk, consistent with most such traffic, we assumed that all cars were reverse routed on an empty basis. Note that intermodal is counted as platforms, making them roughly equivalent in size to the other service types.

Based on varying assumptions, this would yield the following westbound train sizes to Chicago:

Exhibit MS1. 19: Estimated Train Sizes in Cars/Platforms to Chicago⁶⁹

Service Assumption	Base Cars/Train	Projected Cars/Train
7 Days Per Week Service	{{ }}	{{ }}
5 Days Per Week Service	{{ }}	{{ }}
3 Days Per Week Service	{{ }}	{{ }}

The above is based on a 50-week year to account for holidays. This analysis shows that the estimated UP-NS diversions will have a significant impact on CFE's auto business, and on CFE's Chicago volumes. However, it also appears from this analysis that sufficient volumes will remain to maintain on-going service to the Chicago gateway. Note that there may be some additional traffic using the CFE as a bridge carrier, which is not included in the above values.

7. MS-2: Impact of recent industry transactions

STB Request

Because the diversion analysis does not account for industry changes since 2023 from transactions involving CP-KCS, CSXT-Pan Am, and CN-Iowa Northern, discuss the impact of these transactions on Applicants' ability to achieve the truck-to-rail and rail-to-rail diversions modeled by Hunt's diversion and projected market share analysis, including relevant intermodal services such as Falcon Premium and the BNSF/Grupo México/J.B. Hunt service.

The premise of Request MS-2 is incorrect. Although the 2023 100% base traffic data does not fully reflect the ultimate merged state of CP-KCS, CSXT-Pan Am, CN-Iowa Northern, or the

⁶⁹ Workpaper "MS1_Service Viability_vFinal.xlsx" Tab "CFE Summary."

BNSF-Montana Rail Link changes, the T2R and R2R models do incorporate these transactions when considering the competitive options available to shippers. As the models determine whether existing 2023 traffic will divert to UP-NS, they consider the above transactions complete and will only allow a diversion of that existing traffic if the merged UP-NS route offers improved service.

In other words, the model assumes that these rail combinations have already happened for purposes of comparing service options. The combined CP-KCS, CSXT-Pan Am, CN-Iowa Northern, and BNSF-Montana Rail Link networks are treated as existing single-line alternatives. Traffic is projected to divert to UP-NS only where new UP-NS single-line service is expected to outperform already available single-line alternatives.

Hunt Verified Statement Exhibit 4-4: Key assumptions for truck-to-rail-diversion modeling describes how the rail industry changes since 2023 were modeled:

“Base 2023 traffic does not include industry changes since 2023 from mergers/acquisitions involving CP-KCS, CSXT-Pan Am, and CN-Iowa Northern, and other network changes involving BNSF-Montana Rail Link.” [Emphasis added]

It also states:

“These combinations were considered when determining if UP-NS would provide improved rail service in a market. No effort was made to estimate any truck diversions that might have occurred from prior mergers/acquisitions or other network changes.”

As my prior Verified Statement indicated, the R2R and T2R models were not run to estimate the impacts of these transactions for purposes of creating a new 2023 base traffic file. This is consistent with prior STB merger submissions, which are typically based on available data that is 2 to 3 years old and does not reflect transactions, facility openings and closings, new rail services, economic changes, and other events occurring since the base year. The primary reason is that modeling these changes would introduce additional forecasts, thus introducing potential error and making it more difficult to isolate the impacts of the merger being studied. For example, the CPKC merger may have caused some traffic to divert from truck to rail or from one railroad to another, and the combined UP-NS system might then compete for some of that traffic. The models did not attempt to forecast those intervening effects and then forecast a further diversion from those forecasted effects. Rather, the models simply used the observed 2023 traffic base and estimated diversions from that base to the proposed UP-NS service.

Again, both the R2R and T2R models did consider these transactions for competitive purposes when looking at existing rail service in a market. These carriers (e.g., CPRS/KCS/KCSM as part of CPKC) were designated as “family” operations that the models treated as merged carriers. For instance, when the R2R model considered a market, it determined the best routes by comparing a merged CPKC and other known railroad transactions in the market to a merged UP-NS. Similarly, the T2R model compared UP-NS to a merged CPKC (or other relevant railroads) to determine whether the merged UP-NS would provide improved rail service in that market. All of the listed transactions were treated in this same way by designating them as being in the same family and thus allowing them to compete for the traffic.

The CN and UP Falcon Premium service and the BNSF, Grupo México, and J.B. Hunt Quantum de México service were not modeled in the diversion analysis due to two reasons: the timing of service launches and lack of overlap with lanes impacted by the UP-NS merger.

The Falcon Premium service was announced in May 2023 and launched the following month.⁷⁰ The Quantum de México service was announced in May 2025.⁷¹ Accordingly, the Falcon Premium service was not fully reflected in the 2023 waybill data, and the Quantum de México service had not yet been announced. Further, the Falcon Premium and the BNSF/Grupo México/J.B. Hunt service operates in north-south lanes where a UP-NS merger has minimal impact. The Falcon Premium service operates between Mexico and Canada, with CN advertising transit times along a Montreal and Toronto to/from Monterrey and Silao corridor.⁷² A UP-NS merger would not improve the ability of UP to participate in this north-south service between Canada and Mexico via Chicago and Laredo, with the possible exception of Mexico-Detroit traffic. Similarly, the Quantum de México service is a north-south service connecting Mexico with Dallas and Chicago.⁷³ US intermodal locations served by BNSF via the Quantum de México service could be served by UP currently.

⁷⁰ Union Pacific, "Falcon Premium - Our New Best-in-Class Intermodal Service," Announcement Number: PR2023-47, May 1, 2023 (UP_All Premium.pdf)

⁷¹ BNSF, "J.B. Hunt, BNSF and GMXT launch Quantum de México," May 2025 (BNSF-JBHunt.pdf)

⁷² Canadian National Railway, "The Falcon Premium: Canada-US-Mexico Intermodal Service," June 16, 2025 (The Falcon Premium_Canada-US-Mexico Intermodal Service_cn.ca.pdf)

⁷³ BNSF, "J.B. Hunt, BNSF and GMXT launch Quantum de México," May 2025.

VERIFICATION

I, David T. Hunt, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this statement.

Executed on this 20th day of July, 2026.

A handwritten signature in black ink, appearing to read "David T. Hunt", with a long horizontal flourish extending to the right.

David T. Hunt
Vice President
Oliver Wyman

Appendix A. MS-1 Data Processing for Analysis

A.1. Input Datasets

The following datasets are used in this analysis:

A. Post-processed diversion model outputs

(DiversionAnalysis.mkt_share.apdx_v26_e2_100pct): Re-combined with 100% waybill data to determine STCC4 commodity codes, net tons, and other attributes required to match the E-2 data structure. Primary source of projected post-merger Route volume changes.

B. Historical 100% 2023 waybills (DiversionAnalysis.waybills.CRA_2026_processed_2_v4): Used to infer service type for E-2 dataset records based on STCC4 commodity codes and as the basis for existing (pre-merger) market share volumes.

C. Intermodal terminal groupings (DiversionAnalysis.mkt_share.terminals_gp): Used to correct origin/destination BEA assignments for intermodal Routes where terminal groups span BEA boundaries.

D. Rail-to-rail intermodal diversion outputs

(DiversionAnalysis.mkt_share.im_with_stcc4_20260410): Diversion model results specific to intermodal traffic.

E. SPLC-to-BEA mapping function (DiversionAnalysis.mkt_share.fn_SPLC_to_BEAs): Used to assign origin/destination BEA codes to the intermodal diversion dataset.

A.2. Data Processing Sequence

The following data processing steps were applied to the input data to implement the screening of specified Locations and Routes as described above:

Step A. Build an enriched base dataset

- Load source E2 data into temp scope
- Parse Route strings to derive carrier sequence and originating/terminating carriers
- Map STCC4 commodity code to dominant service type using full historical waybills
- Combine E2 source tonnage fields (interline/single line) into unified actual/projected Route ton values

Step B. Build reassignment adjustment for intermodal BEA artifacts

- Identify terminal groups defined in traffic diversion model that span multiple BEAs
- Compare actual BEA pairs stated in E2 vs diversion-model assigned BEA pairs
- Determine reassigned-out and reassigned-in ton adjustment values to recover “movement” of volume between BEAs due to terminal group-based logic
- Produce reassignment-adjusted projected tons alongside unadjusted projected tons

Step C. Aggregate to Routes and flag for volume changes

- Service-type Route summary (origin BEA+RR – destination BEA+RR – service type level)
- Apply absolute/relative filters for rounding precision noise and floor projected tons at zero where needed

Step D. Build distribution diagnostics and percentile tables

- Combine origin and destination exposure into Location totals by service type and carrier
- Generate histograms and cumulative distributions for Routes and Locations
- Build percentile tables for Routes and Locations
- Determine cutoff values for bottom tail of Locations
- Use tail cutoff values as empirical inputs for screening thresholds

Step E. Build Location exposure and depletion flags

- Blend conceptual upper thresholds with tail cutoff-based empirical thresholds for Locations
- Apply threshold checks to flag Locations for depletion and significant decrease
- Classify Location size as significant vs. opportunistic against upper threshold

Step F. Build Route depletion and competitive context flags

- Apply Route thresholds to identify significant decrease for Route
- Join origin/destination Location flags to Routes and create combined at-risk flags

Step G. Generate review outputs

- Validation totals after each major regrouping step
- Location-level flagged outputs
- Route-level flagged outputs (including rejoin of at-risk Routes to base detailed E2 records)
- Threshold, percentile, histogram, and cumulative tables supporting calibration

All data processing steps were implemented as an SQL script⁷⁴ pulling data directly from input datasets.

A.3. Data Processing Outputs

Data pre-processing produced the following primary outputs for use in the review and analysis process:

- Location and Route percentiles by volume
- Location low-volume cutoff values
- Applied thresholds combining directly defined conceptual thresholds and percentile-based lower thresholds
- Reference tons/car or unit values based on waybill data
- Location detail with volume change metrics and inferred screening flags:

⁷⁴Workpaper MS1_E2_Service_Viability_Analysis_vFinal.sql.

- Actual and projected tons
- Absolute and relative volume change
- Flag for significant (above upper threshold) or opportunistic (below upper threshold) volume
- Flag for decrease magnitude (vs. relative change threshold)
- Flag for Location depletion risk (vs. Location-level thresholds)
- Route detail with volume change metrics and inferred screening flags:
 - Actual and projected tons
 - Absolute and relative volume change
 - Flag for decrease magnitude (vs. relative change threshold)
 - Flag for Location-driven risk (Location-level risk at origin or destination)

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

KRISTOF ZETENYI, PH.D.

July 20, 2026

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I. INTRODUCTION

A. Qualifications

1. My name is Kristof Zetenyi and I am a Vice President at Analysis Group, Inc. (“AG”), an economic, financial, and strategy consulting firm. I earned a B.S. in mathematics and economics from the University of Richmond and an M.A. and Ph.D. in economics from the University of Rochester. I specialize in industrial organization—the study of how markets function—and applied microeconomics—which applies economic theory, statistical methods, and empirical analysis to evaluate real-world economic questions.

2. I have over twelve years of experience as a professional economist. A large share of my career has focused on the economic analysis of issues related to antitrust and competition. In antitrust matters, including horizontal and vertical mergers, I have supported experts on behalf of plaintiffs, defendants, and the US Department of Justice (“DOJ”) and the Canadian Competition Bureau. I have consulted on numerous high-profile mergers and acquisitions for both the merging parties (e.g., *IQVIA / Propel Media*, *Penguin Random House / Simon & Schuster*) and the DOJ (e.g., *Deere / Precision Planting* and multiple confidential merger reviews in industries including healthcare and agriculture). Outside of mergers and acquisitions, I have applied antitrust economics to matters involving allegations of monopolization, monopsonization, and price fixing across industries, including health insurance, air travel, app distribution, optical disk drives, and newspapers. In 2022, I led a team in an antitrust matter that was recognized as the “Matter of the Year” and “Litigation of the Year – Non-cartel Defense” by Global Competition Review.

3. I also have extensive experience performing empirical and statistical analyses, including analyzing capacity in the transportation industry. For example, I have consulted on several matters in the airline industry, in which capacity and utilization are key issues. In particular, I analyzed whether slot allocation and slot concentration resulted in higher prices and lower quality in the context of the Mexican Competition Commission’s investigation of the Mexico City airport. I also studied capacity utilization in the context of price fixing allegations on transpacific routes. As a testifying expert, I performed empirical and statistical analyses of the removal, storage, and disposal of unhoused residents’ personal property during their encampment cleanups.

4. I have given guest lectures on topics in antitrust and competition for undergraduate- and graduate-level students at the Haas School of Business at the University of California, Berkeley, and at the University of Southern California. I frequently publish on issues related to antitrust and competition in journals such as *Antitrust Report*, *Antitrust Magazine*, *The Antitrust Bulletin*, *Concurrences*, and *CPI Antitrust Chronicle*. I currently serve as Vice Chair of the Economics Committee of the American Bar Association (“ABA”) Antitrust Law Section.

5. My qualifications, experience, and the matters in which I have provided expert testimony are summarized in my curriculum vitae, attached hereto as **Appendix A**.

B. Assignment

6. I have been asked by Applicants in this proceeding to provide an empirical analysis to address the Surface Transportation Board’s request for additional information regarding whether “the UP and NS lines used to host passenger services have sufficient capacity

to support projected freight increases while maintaining current passenger service levels.”¹ I understand that the Applicants have identified all segments on UP- or NS-owned lines that host passenger service and that are projected to experience merger-related growth of one freight train per day or more. I will refer to the Amtrak passenger services that operate over those identified segments as the “Relevant Amtrak Services” and the other passenger services that operate over those identified segments as the “Relevant Commuter Services.” I will refer to the Relevant Amtrak Services and the Relevant Commuter Services together as the “Relevant Passenger Services.”

7. For each Relevant Passenger Service, the Applicants provided data on historical monthly passenger service performance and capacity utilization (“CU”) for the segment expected to have the highest projected post-merger CU among the growth-affected line segments used by that service (the “Selected Segment”). I was asked to assess, based on historical data, whether the projected merger-related increases in CU for those Selected Segments are expected to increase delay for the Relevant Passenger Services.

C. Materials Considered

8. My opinions, and the bases for those opinions, are set forth in this statement and the attached exhibits and appendices. In reaching these opinions, I rely on the data as provided by the Applicants and have not independently verified the underlying operational inputs, including segment selection, capacity calculations, train volume data, and Operating Plan projections.

¹ See *Union Pacific—Control—Norfolk Southern*, Decision No. 21, Docket No. FD 36873 (STB served May 26, 2026), at 32.

9. I understand that the Applicants identified the Relevant Passenger Services and the corresponding Selected Segments by selecting the line segment with the highest projected “growth capacity utilization”—that is, the segment with the highest ratio of projected post-merger trains per day to post-merger fluid capacity for each Relevant Passenger Service. The Applicants selected 25 Relevant Passenger Services, 9 that operate over UP lines (6 Relevant Amtrak Services and 3 Relevant Commuter Services) and 16 that operate over NS lines (15 Relevant Amtrak Services and 1 Relevant Commuter Service).² For each corresponding Selected Segment, the Applicants calculated historical monthly CU based on historical train volumes and paired those CU values with the associated Relevant Passenger Service’s monthly performance metric.³ Specifically, the Applicants provided monthly passenger performance data measured as Amtrak Host Railroad Delay Minutes per 10,000 train-miles (“HRD”) for the Relevant Amtrak Services and On-Time Performance (“OTP”) data for the Relevant Commuter Services. In addition, the Applicants provided projected post-merger CU for the Selected Segments.

10. I understand that the Applicants’ fluid capacity estimates were developed in accordance with a line capacity calculation methodology, which is described in a workpaper submitted with the Amended Application.⁴ As described in that methodology, line capacity of a

² One of the Relevant Amtrak Services is the Capitol Limited, a temporarily discontinued service which operated over NS lines. Amtrak’s Floridian, another one of the Relevant Amtrak Services, is a temporary service that operates over the routes of the Capitol Limited and the Silver Star. *See* “Floridian,” *Amtrak*, available at <https://www.amtrak.com/floridian-train>. *See also* Amended Application, Volume 2, Verified Statement of Eric Gehringer and John F. Orr, p. 769.

³ Data provided by the Applicants cover the period January 2019 through April 2026 for most services operating on UP, including Amtrak and ACE, and June 2021 through April 2026 for most Amtrak services operating on NS. Data on UP’s Metra (West) and VRE services cover the period July 2022 through December 2025. Data on UP’s Metrolink (Riverside Line) cover the period July 2022 through April 2026. Data on NS’s Capitol Limited cover the period June 2021 through November 2024. Data on NS’s Floridian cover the period November 2024 through April 2026. Data on NS’s Mardi Gras cover the period August 2025 through April 2026. *See* Workpaper “PR-3 STB Supplemental.xlsx.”

⁴ *See* Workpaper “Line Capacity Methodology.pdf.”

single-track corridor is expressed in trains per day and estimates how many trains can fluidly operate on a line segment each day, accounting for portions of the line where trains traveling in opposite directions must use designated “meet points,” such as sidings or yards, to wait for one another to pass safely.⁵ I understand that CU measures train volumes relative to fluid capacity. The Applicants calculated historical monthly CU using historical train volumes for the Selected Segments, while projected post-merger CU was calculated by comparing the Growth Plan trains per day for each Selected Segment to the applicable post-merger fluid-capacity measure.

11. In addition, I have relied on my skills, knowledge, training, education, and experience. I reserve the right to update my opinions, should additional relevant documents or information be made available to me.

II. SUMMARY OF OPINIONS

12. Based on my review and analysis of the data and information identified herein, and my skills, knowledge, experience, expertise, and training, I conclude that the projected merger-related increases in CU for the Selected Segments are not expected to result in statistically significant increases in passenger delay for the Relevant Passenger Services. This opinion is based on the following findings.

⁵ I understand that the line-capacity methodology identifies siding spacing, train speed, the signal system, other potential operating impairments, and demand variability as inputs that affect line capacity. For single-track bottleneck calculations, the methodology first calculates a theoretical maximum number of trains per day based on the time required to complete a train-pair cycle, including runtimes and a spacing factor. It then converts that theoretical maximum into a “fluid capacity” by dividing by a peaking factor, which the methodology states accounts for “maintenance, train mix / transit variance, and interarrival variability.” For a larger stretch of track consisting of multiple single-track segments between sidings, the methodology defines “bottleneck capacity” as the minimum of the fluid-capacity estimates for the individual single-track segments. *See* Workpaper “Line Capacity Methodology.pdf.”

13. First, for the Relevant Passenger Services and corresponding Selected Segments with sufficient historical observations both above and below the projected post-merger CU, I do not find evidence that average passenger service performance for the Relevant Passenger Services was historically worse during months when CU for the Selected Segment exceeded the projected post-merger CU than during months when CU was below that level. I find that the differences in average delay for the Relevant Amtrak Services and average OTP for Relevant Commuter Services between months in which CU for the Selected Segments was above and months in which CU was below the projected post-merger CU are not statistically significant and thus indistinguishable from no difference at all.

14. Second, I do not find evidence of a statistically significant relationship between passenger delay for the Relevant Amtrak Services and CU for the corresponding Selected Segments within the historical data included in my analysis.⁶ Although the raw historical data exhibit a weak positive correlation between passenger delay and CU, my analyses indicate that this correlation reflects, in part, persistent differences across passenger services and recurring seasonal patterns. After accounting for differences across passenger services and seasonal patterns, I do not find evidence that CU for the Selected Segments is a statistically significant predictor of passenger delay for the Relevant Amtrak Services. This conclusion is robust across alternative statistical models, including models that allow the relationship between passenger delay and CU to vary flexibly across the observed range of CU.

⁶ As noted in Section III, similar analysis studying the historical relationship between OTP and CU using the full panel dataset for the Relevant Commuter Services would not be appropriate.

III. ANALYTICAL APPROACH TO ANALYZING PASSENGER SERVICE PERFORMANCE AND CAPACITY UTILIZATION

15. In this section, I describe the analytical approach I use to address my assignment. I first evaluate whether the historical data indicate that passenger service performance for the Relevant Passenger Services differed when CU for the corresponding Selected Segments exceeded the projected post-merger CU than when it remained below that level.⁷ I then estimate the historical relationship between passenger delay for the Relevant Amtrak Services and CU for the corresponding Selected Segments.

16. If CU were an important determinant of passenger service performance for the Relevant Passenger Services, that relationship should be reflected in the historical data. The relationship between CU and passenger delay has been examined previously in the economics literature. For example, Krier et al. (2014) estimate a positive relationship between CU and Amtrak delay using data from a different set of rail lines and operating conditions.⁸ At the same time, the relationship between CU and passenger delay may differ across services because of differences in characteristics of trains used, operating practices, traffic composition, or the range of historically observed CU on the corresponding railway segments.⁹ Accordingly, the relevant

⁷ Passenger service performance is measured by HRD for the Relevant Amtrak Services and OTP for the Relevant Commuter Services.

⁸ See Krier, Betty, Chia-Mei Liu, Brian McNamara, and Jerrod Sharpe, “Individual freight effects, capacity utilization, and Amtrak service quality,” *Transportation Research Part A: Policy and Practice*, Vol. 64, June 2014, pp. 163-175, p. 164 (“Our empirical model controls for important delay determinants, including the capacity utilization rate, an indicator of the degree of congestion on a rail network. Dingler et al. (2009) performed a simulation-based study and showed that increases in traffic volume increase rail delays. We constructed a capacity utilization variable based on traffic volume and capacity, using an approach similar to that of Cambridge Systematics (2007), and found that increases in capacity utilization add to Amtrak train delays.”).

⁹ See, for example, Krier, Betty, Chia-Mei Liu, Brian McNamara, and Jerrod Sharpe, “Individual freight effects, capacity utilization, and Amtrak service quality,” *Transportation Research Part A: Policy and Practice*, Vol. 64, June 2014, pp. 163-175, p.163 (“We found that freight effects have a significant impact on Amtrak train delays after controlling for other important delay determinants such as the capacity utilization rate. The impact

empirical question for my assignment is whether the historical data show a statistically significant relationship between passenger service performance for the Relevant Passenger Services and CU for the corresponding Selected Segments. The Selected Segments provide a reasonable focal point for this analysis because they are the growth-affected segments projected to operate at the highest post-merger CU for each Relevant Passenger Service.

17. I assess these questions using the historical data provided by the Applicants. Because passenger service performance may be influenced by factors other than CU, a reliable empirical analysis should distinguish the relationship between passenger service performance and CU from the effects of those other factors. For example, different services have different operational characteristics (e.g., physical infrastructure, topography, train density, track speed, etc.) that may affect both CU and passenger service performance.¹⁰ Likewise, seasonal patterns, including weather, maintenance activities, and fluctuations in traffic demand may influence both variables over time.¹¹ Accordingly, a reliable analysis should distinguish the true relationship

is higher on long-distance routes. We also observed significant differences between the effects of different freight railroads. For example, Amtrak operations on infrastructure controlled by several Class I railroads experienced significantly larger delays than baseline operations, while Amtrak train delays on Burlington Northern and Santa Fe's tracks actually fell below baseline levels.”).

¹⁰ See Transportation Technology Center, Higher Reliability and Capacity Train Control, DOT/FRA/ORD-22/30, Final Report, U.S. Department of Transportation, Federal Railroad Administration, August 2022, p. 85 (“The capacity of a rail line is affected by many factors, including the number of tracks, frequency and length of sidings, capacity of the yards and terminals along a corridor to receive the traffic, type of control systems, terrain, mix of train types, power of the locomotives, track speed, and individual railroad operating practices”).

¹¹ See U.S. Department of Agriculture, Agricultural Marketing Service, and US Department of Transportation, *Study of Rural Transportation Issues*, April 2010, p. 310 (“Excess demand for rail transportation often results in congestion on rail lines and in switching yards... As rail lines and switching yards become congested, their capacity is lower than when the lines are fluid.”) and U.S. Department of Transportation, Office of Inspector General, *Amtrak Cascades and Coast Starlight Routes: Implementation of New Metrics and Standards Is Key to Improving On-Time Performance*, Report No. CR-2010-117, September 23, 2010, p. 7 (“During winter months, severe weather conditions such as snow, freezing temperatures, heavy rains, and mudslides delay trains in the Pacific Northwest. During summer months, trains may be delayed because of heightened track maintenance and construction work.”).

between passenger service performance and CU from the effects of these other factors that may influence passenger delay.¹²

18. Ideally, one would have detailed information on each service’s operational characteristics and seasonal patterns to account for these factors directly. While such information is not available for the purposes of this statement, the data provided by the Applicants contain monthly observations for each of the Relevant Passenger Services over time. This type of panel dataset allows me to account for many factors that are not directly observed, but are either constant over time within a service or common across services during a given period.¹³

19. I begin with an initial assessment of the raw panel data to evaluate the extent of variation across passenger services and time in both passenger delay and CU. This analysis provides insight into the structure of the data and helps identify the types of factors that should be accounted for in the subsequent statistical analysis.¹⁴ As part of this analysis, I analyze

¹² Failing to account for such factors can bias the estimated relationship between CU and passenger delay. This is the classic omitted-variables problem: if a variable that influences passenger delay is left out of the analysis and is also correlated with CU, the estimated CU-passenger delay relationship will conflate the true effect of CU with the effect of the omitted factor. See Jeffrey M. Wooldridge, *Econometric Analysis of Cross Section and Panel Data*, Cambridge, Mass.: MIT Press, 2002, pp. 50–51. Wooldridge explains that when a relevant variable is unobserved and left in the error term, the estimated relationship “need have no particular relationship” to the true conditional expectation when the omitted variable and the included regressor are correlated (p. 50), illustrating the point with the example of unobserved ability in a wage equation, where “an individual’s years of schooling are likely to be correlated with unobserved ability” (p. 51).

¹³ A panel data set (also called longitudinal data) collects data on individual units (e.g., persons, firms) over time and has both cross-sectional and time-series dimensions. The use of panel data to control for unobserved, time-invariant heterogeneity across units is a standard econometric technique. See, for example, Jeffrey M. Wooldridge, *Econometric Analysis of Cross Section and Panel Data*, Cambridge, Mass.: MIT Press, 2002, pp. 253, 267. Wooldridge illustrates the problem with a farming example, explaining that in a model of soybean output, the unobserved effect “can capture average quality of land, managerial ability of the family running the farm, and other unobserved, time-constant factors” (p. 253), and that failing to control for it produces bias because “the optimal choice of inputs in every year generally depends on” this unobserved effect (p. 253). He then shows that the fixed effects transformation solves this by time-demeaning the data: after subtracting each unit’s time average from the model, “[t]he time demeaning of the original equation has removed the individual specific effect” (p. 267).

¹⁴ See William H. Greene, *Econometric Analysis*, 7th ed., Prentice Hall, 2012, p. 5 (“Correlations among economic variables are easily observable through descriptive statistics and techniques such as linear regression methods.”), pp. 1048-1049 (“Before attempting to estimate parameters of a population or fit models to data, we

demeaned data (*i.e.*, observations expressed as deviations from the average), which removes systematic differences (*i.e.*, group-invariant differences) across comparison groups and allows the analysis to focus on deviations (or residuals) from typical conditions.¹⁵ Demeaning re-expresses each observation relative to the average for a relevant comparison group. For example, if the data are demeaned by month of the year, each observation is adjusted by subtracting the average value for that same calendar month across the dataset. A January observation is compared against the typical January level, a February observation against the typical February level, and so on. This approach removes predictable seasonal patterns and allows the analysis to focus on departures from typical seasonal conditions. As I discuss below, persistent differences across Relevant Passenger Services and over time affect the degree of correlation observed in the raw data, and thus should be properly accounted for in the rest of the analysis.

20. I then compare historical passenger service performance for the Relevant Amtrak and Commuter Services during months in which CU for the corresponding Selected Segments exceeded the projected post-merger CU with months in which CU remained below that level. This comparison evaluates whether passenger service performance historically differed under CU levels comparable to those projected after the merger. Because passenger service performance may vary systematically over time due to seasonal factors unrelated to CU, this

normally examine the data themselves. ... [W]e will also be interested in measures of association among the variables. A scatter diagram is useful[.]”).

¹⁵ Demeaning, or expressing each observation as its deviation from the unit’s own average, is a standard transformation in panel data analysis that isolates variation over time within each unit. *See* Chris Brooks, *Introductory Econometrics for Finance*, 2nd ed., Cambridge University Press, 2008, pp. 491-492 (“This transformation, known as the *within transformation*, involves subtracting the time-mean of each entity away from the values of the variable... Then we can subtract the time-means from each variable to obtain a regression containing demeaned variables only.”).

analysis accounts for recurring monthly and yearly patterns in passenger service performance when comparing the two groups of observations.

21. I then estimate the historical relationship between passenger delay and CU using the full panel dataset for the Relevant Amtrak Services and after accounting for both service-specific characteristics and seasonal patterns. I test a number of alternative statistical models, including models that allow the relationship between passenger delay and CU to be linear, log-linear, as well as to be flexible across the observed range of CU.

22. A similar analysis studying the historical relationship between OTP and CU using the full panel dataset for the Relevant Commuter Services would not be appropriate for two reasons. First, unlike the Amtrak HRD data, which I understand to be standardized across all Relevant Amtrak Services, there is no single standardized OTP metric across the Relevant Commuter Services. Each of the four Relevant Commuter Services is operated by a different entity and may define and measure OTP in different ways—including the threshold used to determine whether a train is on time, the type of trains that are included for measurement (e.g., special event trains), and whether particular types of delays are excluded (e.g., delays beyond a railroad’s control).¹⁶ While some information is publicly available regarding how certain entities measure OTP,¹⁷ I do not have sufficient information to determine whether all four Relevant Commuter Services measure OTP in a consistent manner. Accordingly, differences in OTP across services may reflect differences in how OTP is measured rather than differences in

¹⁶ For example, VRE measures OTP as the “percentage of trains arriving at their destination within 5 minutes of the schedule” including “trains that were delayed due to operational testing and passenger handling.” See “CEO Report,” *Virginia Railway Express*, available at <https://vre.civicweb.net/filepro/documents/8758/?preview=9803>, pp. 4-5.

¹⁷ See, for example, “Ridership and On-Time Performance,” *Metra*, available at <https://metra.com/ridership-and-on-time-performance>; “Amtrak Virginia COTP Reports,” *Virginia Passenger Rail Authority*, available at <https://vapassengerrailauthority.org/resources/reports/resources-otp-reports/>.

operating performance, making comparisons across the Relevant Commuter Services unreliable and difficult to interpret. Second, because OTP is a threshold-based indicator, the same increase in passenger delay may translate into different changes in OTP depending on the service-specific definition of OTP and the underlying distribution of delays. Accordingly, even if CU affected passenger delay in the same way across services, it could produce very different changes in reported OTP, making it difficult to compare or combine OTP results across the Relevant Commuter Services.

23. Underlying my analyses are regression models. Regression models are widely used in applied economics and are designed to isolate the relationship between passenger delay and CU after accounting for other factors that may influence both variables and cannot be observed directly.¹⁸ Regression models enable one to uncover the relationship between a dependent variable (*i.e.*, the outcome being modeled) and one or more independent or explanatory variables (*i.e.*, the factors that might influence the outcome being studied).¹⁹ In my regression analysis, I employ a fixed-effects specification, which is a standard statistical approach that compares changes in CU and passenger delay within the same passenger service over time, while accounting for systematic differences across services and recurring seasonal patterns.²⁰

¹⁸ See Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach*, South-Western/Cengage Learning, 2009, p. 68 (“Multiple regression analysis is more amenable to *ceteris paribus* analysis because it allows us to *explicitly* control for many other factors that simultaneously affect the dependent variable. This is important both for testing economic theories and for evaluating policy effects when we must rely on nonexperimental data.”).

¹⁹ See, for example, Proving Antitrust Damages, *American Bar Association*, 2017, Chapter 6, p. 123 (“It enables one to uncover the relationship between a dependent variable (the outcome being modeled, such as prices) and one or more explanatory variables (the potential influences on the dependent variable, such as anticompetitive conduct, supply factors including costs or capacity, and demand factors).”).

²⁰ See, for example, Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach*, South-Western/Cengage Learning, 2009, pp. 481-482, 485.

24. The analyses I use are complementary. The historical comparison above and below the projected post-merger CU directly evaluates passenger service performance under CU levels comparable to those projected after the merger. The regression analyses estimate the broader historical relationship between passenger delay and CU using all available observations while accounting for differences across passenger services and recurring seasonal patterns. Taken together, these analyses provide the basis for my opinions regarding the expected effect of the projected merger-related increases in CU on passenger delay for the Relevant Passenger Services.

IV. INITIAL ASSESSMENT OF THE DATA HIGHLIGHTS THE IMPORTANCE OF ACCOUNTING FOR SEASONAL PATTERNS AND DIFFERENCES ACROSS AMTRAK SERVICES

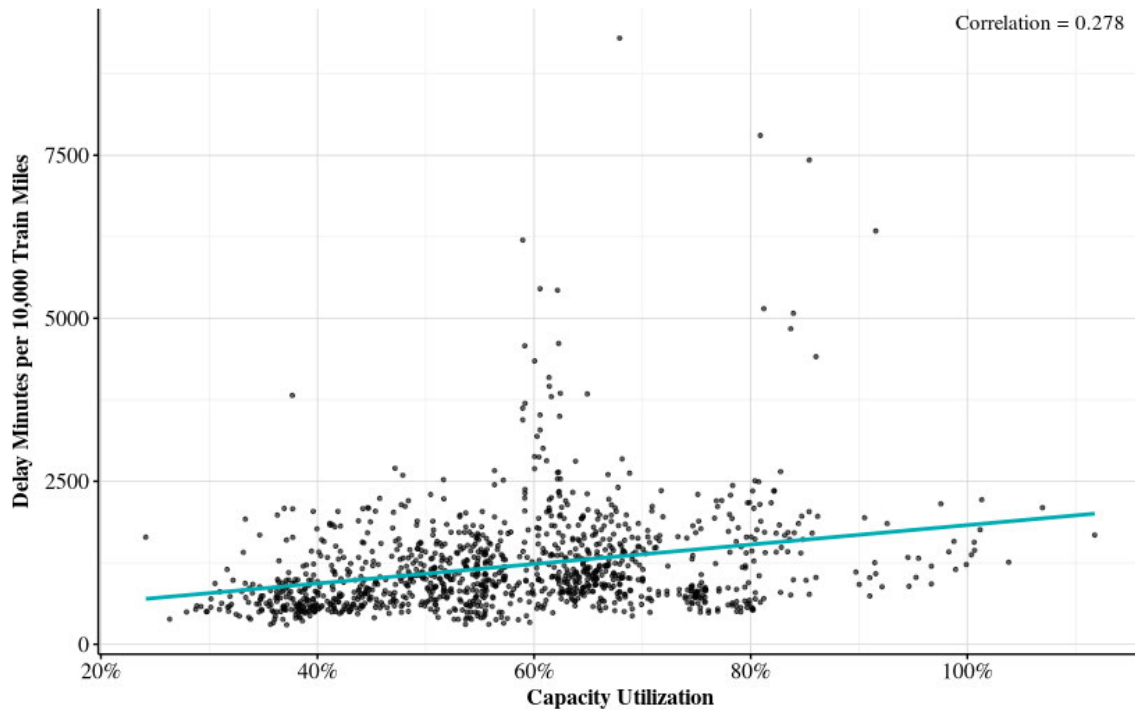
25. In this section, I provide an initial assessment of the relationship between passenger delay for the Relevant Amtrak Services and CU for the corresponding Selected Segments. While the raw data suggest a weak positive correlation, these analyses do not isolate the relationship between passenger delay and capacity utilization from other factors that may influence passenger delay. Accordingly, these analyses are helpful for identifying patterns in the data, but should not be interpreted as estimates of the historical relationship between passenger delay and CU. These analyses do indicate, however, that persistent differences across Relevant Amtrak Services and over time affect the degree of correlation observed in the raw data, and thus should be properly accounted for in the rest of the analysis.²¹

²¹ Although this section focuses on passenger delay for the Relevant Amtrak Services, it is reasonable to account for seasonal patterns when studying OTP for the Relevant Commuter Services as well. Seasonal factors such as weather, maintenance activities, and fluctuations in traffic demand may affect both OTP and CU over time for Relevant Commuter Services just as they affect HRD and CU for Relevant Amtrak Services. Accordingly, the analyses of Relevant Commuter Services in Section V similarly account for seasonal patterns.

A. Raw data show a weak positive correlation between passenger delay and capacity utilization

26. Figure 1 presents a scatter plot of monthly passenger delay for the Relevant Amtrak Services and CU for the corresponding Selected Segments included in my analysis. The raw data exhibit a weak positive correlation between passenger delay and CU, with a correlation coefficient of 0.278. Although this simple comparison suggests that passenger delay for the Relevant Amtrak Services tends to be higher, or worse, when CU for the corresponding Selected Segments is higher, it does not account for other factors that may influence passenger delay. Accordingly, I next examine whether the observed correlation may reflect recurring seasonal patterns or differences across Relevant Amtrak Services.

Figure 1. Correlation Between Passenger Delay and Capacity Utilization



Notes:

- [1] Each dot represents a historical monthly observation pairing the monthly HRD measure for a Relevant Amtrak Service with the monthly CU of its corresponding Selected Segment.
- [2] The teal line shows the fitted linear relationship across all observations.
- [3] Amtrak does not distinguish between the Michigan / Blue Water, Pere Marquette, and Wolverine services in its HRD data, and therefore the three services have duplicated data across all time periods. For this analysis, I include only the Michigan / Blue Water.
- [4] Data for the Capitol Limited are included in this analysis.

Source:

- [1] Workpaper “PR-3 STB Supplemental.xlsx.”

B. Passenger delay and capacity utilization vary over time

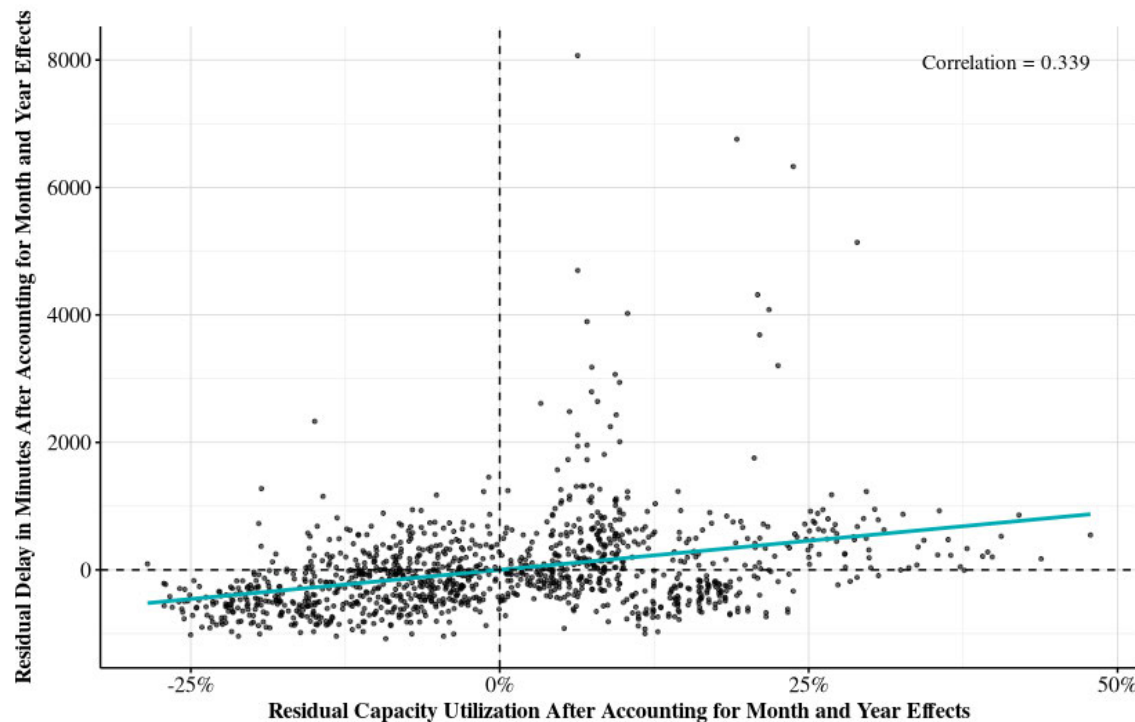
27. The data exhibit seasonal patterns and broad annual changes in both passenger delay and CU. Seasonal factors, including weather, maintenance activities, and fluctuations in traffic demand, may affect both passenger delay and CU over time. Broad annual changes, including macroeconomic trends, regulatory changes, or a global pandemic, also may affect both

passenger delay and CU over time. Therefore, both seasonal and annual patterns should be accounted for when evaluating the relationship between passenger delay and CU.

28. To assess the potential importance of seasonality and broad annual changes, I examine the relationship between passenger delay for the Relevant Amtrak Services and CU for the corresponding Selected Segments after accounting for recurring monthly and yearly patterns in passenger delay.²² Specifically, I consider residual passenger delays and residual CU after accounting for month and year effects, which allows the analysis to focus on deviations from seasonal and annual patterns. Figure 2 presents the results of this analysis. After accounting for these seasonal and annual patterns, the correlation between HRD and CU is 0.339, compared to 0.278 observed in the raw data. This suggests that seasonal and broad annual patterns across Relevant Amtrak Services affect the degree of correlation observed in the raw data, and thus should be properly accounted for in the rest of the analysis. Given the conclusion that seasonal and broad annual patterns across Relevant Amtrak Services affect the degree of correlation observed in the raw data, it is also reasonable to account for seasonal and broad annual patterns across Relevant Commuter Services as well.

²² Seasonality refers to recurring seasonal patterns. See Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach*, South-Western/Cengage Learning, 2009, p. 368 (“If a time series is observed at monthly or quarterly intervals (or even weekly or daily), it may exhibit seasonality. [...] Sometimes, we do work with seasonally unadjusted data, and it is useful to know that simple methods are available for dealing with seasonality in regression models. Generally, we can include a set of seasonal dummy variables to account for seasonality in the dependent variable, the independent variables, or both.”). Broad annual changes refers to factors that vary over an annual horizon and potentially create omitted bias in observed relationships if not accounted for. See Stock, James H. and Mark W. Watson, *Introduction to Econometrics*, Third Ed., Addison-Wesley, 2011, p. 360 (“[T]he time fixed effects specification allows us to eliminate bias arising from omitted variables like nationally introduced safety standards that change over time but are the same across states in a given year.”).

Figure 2. Correlation Between Passenger Delay and Capacity Utilization, After Accounting for Seasonal Differences



Notes:

- [1] Each dot represents a historical monthly observation pairing the monthly residual HRD measure for a Relevant Amtrak Service with the monthly residual CU of its corresponding Selected Segment.
- [2] Residual HRD is calculated for each observation as the difference between actual delay minutes and the fitted value from a regression of delay minutes on month and year fixed effects.
- [3] Residual CU is calculated for each observation as the difference between actual CU and the fitted value from a regression of CU on month and year fixed effects.
- [4] The teal line shows the fitted linear relationship across all observations.
- [5] Amtrak does not distinguish between the Michigan / Blue Water, Pere Marquette, and Wolverine services in its HRD data, and therefore the three services have duplicated data across all time periods. For this analysis, I include only the Michigan / Blue Water.
- [6] Data for the Capitol Limited are included in the analysis.

Source:

- [1] Workpaper “PR-3 STB Supplemental.xlsx.”

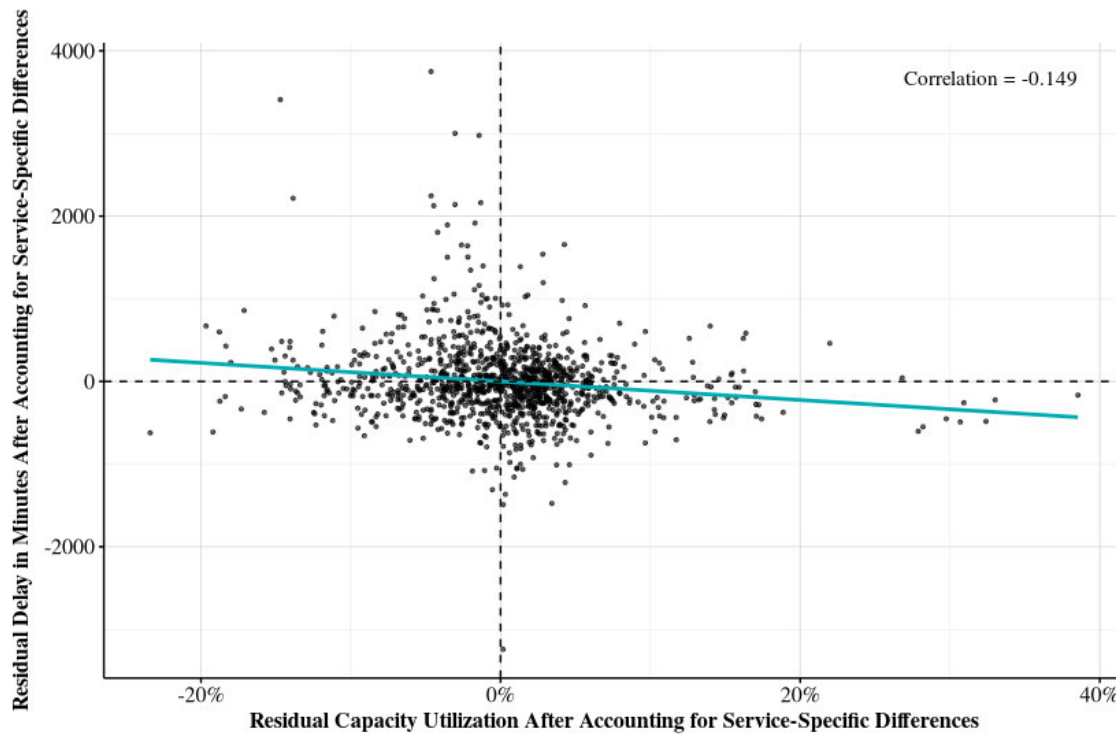
C. Passenger delay and capacity utilization vary across passenger services

29. The data also exhibit substantial variation in passenger delay across Relevant Amtrak Services, and of those, some Relevant Amtrak Services consistently experience higher passenger delay compared to others. These persistent differences may reflect underlying

characteristics of individual services, such as physical infrastructure, topography, train density, track speed, etc., rather than the true effect of CU on passenger delay.

30. To assess the potential importance of differences across passenger services, I first re-express passenger delay for each Relevant Amtrak Service as deviations from that service's historical average delay (*i.e.*, demeaned) and re-express CU for the corresponding Selected Segment as deviations from that segment's historical average CU (*i.e.*, demeaned). I then examine the relationship between the within-service deviations in delay and CU. Figure 3 presents the results of this analysis. After accounting for these persistent service-level differences across Relevant Amtrak Services, the weak positive correlation observed in the raw data turns into a weak *negative* correlation. This suggests that persistent differences across Relevant Amtrak Services affect the degree of correlation observed in the raw data, and thus should be properly accounted for in the rest of the analysis.

Figure 3. Correlation Between Passenger Delay and Capacity Utilization, After Accounting for Service-Specific Differences



Notes:

- [1] Each dot represents a historical monthly observation pairing the monthly residual HRD measure for a Relevant Amtrak Service with the monthly residual CU of its corresponding Selected Segment.
- [2] Residual HRD is calculated for each observation as the difference between the monthly observed HRD for a Relevant Amtrak Service and that service's historical average HRD. For example, if the Sunset Limited recorded a HRD of 1,700 minutes in January 2020, but the average HRD across all observations for the Sunset Limited is 1,200 minutes, the residual HRD for January 2020 is 500 minutes on the y-axis.
- [3] Residual CU is calculated for each observation as the difference between the monthly observed CU for the corresponding Selected Segment and that segment's historical average CU. For example, if the Sunset Limited recorded CU of 60% in January 2020, but the average CU across all observations for the Sunset Limited is 70%, the residual CU for January 2020 is -10% on the x-axis.
- [4] Amtrak does not distinguish between the Michigan / Blue Water, Pere Marquette, and Wolverine services in its HRD data, and therefore the three services have duplicated data across all time periods. For this analysis, I include only the Michigan / Blue Water.
- [5] Data for the Capitol Limited are included in the analysis.

Source:

- [1] Workpaper "PR-3 STB Supplemental.xlsx."

V. HISTORICAL DATA DO NOT INDICATE THAT PASSENGER SERVICE PERFORMANCE IS EXPECTED TO CHANGE AT OR ABOVE THE PROJECTED POST-MERGER LEVELS OF CAPACITY UTILIZATION

31. The analysis in this section addresses the question of whether passenger service performance historically differed during periods when CU exceeded the levels projected after the merger. To evaluate this question, I estimate, separately for each Relevant Passenger Service, the average difference in seasonally adjusted passenger service performance between months in which CU equaled or exceeded the projected post-merger CU for the corresponding Selected Segment and months in which it remained below that level, after accounting for seasonal patterns. For certain Relevant Passenger Services, the projected post-merger CU exceeds the highest CU level observed in historical data for the corresponding Selected Segment.²³ In those cases, there are no historical observations above the projected post-merger level against which to make the comparison.

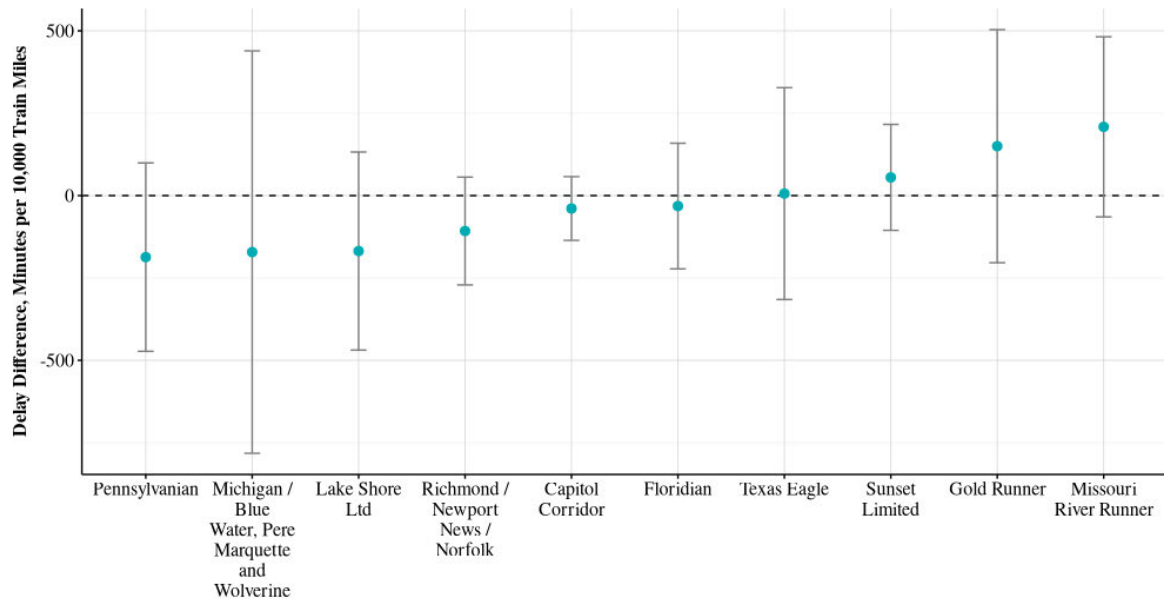
32. Figure 4 summarizes the results for each Relevant Amtrak Service for which there are historical observations above the projected post-merger level.²⁴ These results account for recurring monthly and yearly patterns in passenger delay and CU. A statistically significant result would indicate that after accounting for differences in seasonal patterns and broad annual changes, passenger delay for the Relevant Amtrak Service historically differed between months when CU for the corresponding Selected Segment equaled or exceeded the projected post-merger level and months when it did not. The results show that, after accounting for seasonal patterns and broad annual changes, passenger delay is not statistically significantly worse when CU

²³ These Passenger Services include California Zephyr, Cardinal, Carolinian, Christiansburg, Crescent, Mardi Gras, Piedmont, Roanoke, and VRE.

²⁴ Detailed results are presented in Exhibit 1.

equals or exceeds the projected post-merger level than when it remains below that level for the Relevant Amtrak Services for which this comparison can be made. Specifically, for all 10 Relevant Amtrak Services analyzed, passenger delay when CU for the corresponding Selected Segment equals or exceeds the projected post-merger level is not statistically different from passenger delay when CU remains below that threshold.

Figure 4. Comparison of Historical Passenger Delay Above and Below the Projected Post-Merger Capacity Utilization for the Relevant Amtrak Services



Notes:

- [1] Each dot represents the estimated average difference in seasonally-adjusted HRD for a Relevant Amtrak Service between months when historical CU for the corresponding Selected Segment equaled or exceeded projected post-merger CU and months when it did not. The vertical bars represent the 95% confidence intervals for those estimates.
- [2] The outcome variable is seasonally-adjusted HRD. The reported coefficient is for an indicator variable equal to 1 if historical CU for the corresponding Selected Segment equaled or exceeded projected post-merger CU, and 0 otherwise.
- [3] I use robust standard errors.
- [4] The Capitol Corridor and Pennsylvanian each have only one month in which CU for the corresponding Selected Segment equaled or exceeded the projected post-merger CU. The Richmond/Newport News/Norfolk service has only two months in which CU for the corresponding Selected Segment equaled or exceeded the projected post-merger CU. The Texas Eagle has only four months in which CU for the corresponding Selected Segment equaled or exceeded the projected post-merger CU.
- [5] Amtrak does not distinguish between the Michigan / Blue Water, Pere Marquette, and Wolverine services in its HRD data, and therefore the three services have duplicated data across all time periods. For this analysis, I include only the Michigan / Blue Water.
- [6] Data for the Capitol Limited are not included in the analysis. Amtrak has temporarily consolidated the Capitol Limited and the Silver Star into the Floridian, so the interpretation of a projected post-merger CU for the Capitol Limited is unclear.

Source:

- [1] Workpaper “PR-3 STB Supplemental.xlsx.”

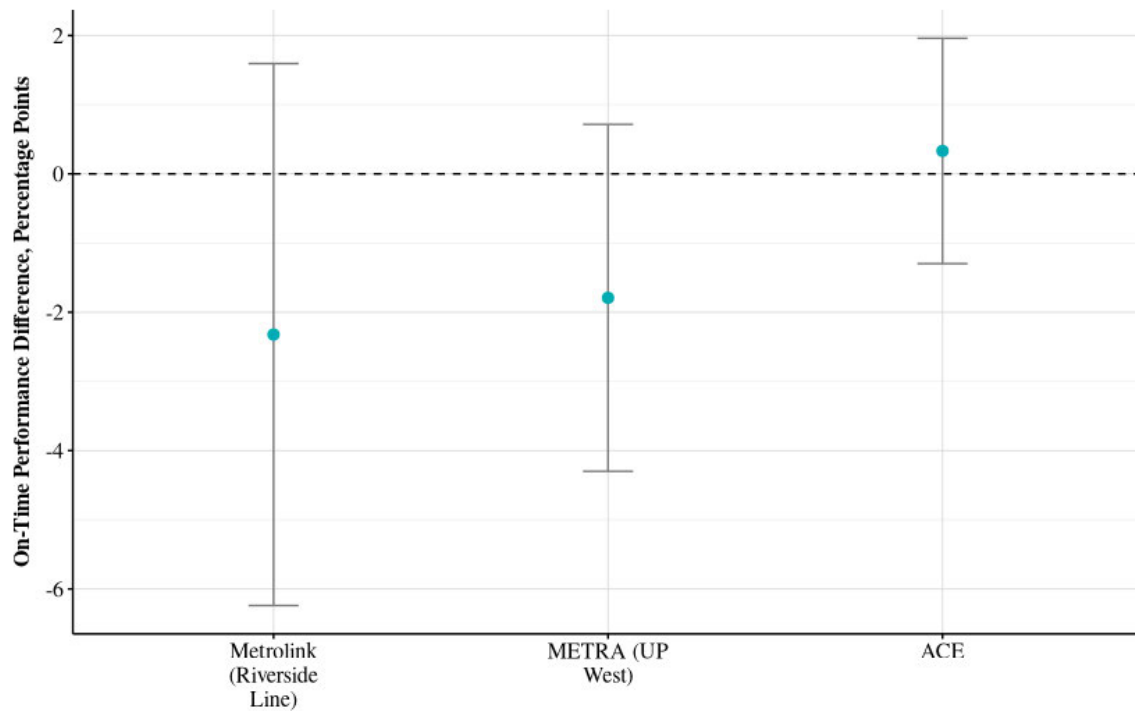
33. Figure 5 summarizes the results for each Relevant Commuter Service for which the comparison can be performed. For Relevant Commuter Services, the available data include

OTP rather than HRD.²⁵ I estimated the average difference in seasonally adjusted OTP between months in which CU equaled or exceeded the projected post-merger CU for the corresponding Selected Segment and months in which CU remained below that level, after accounting for recurring seasonal patterns. After accounting for seasonal patterns, I find that, for all 3 Relevant Commuter Services analyzed,²⁶ OTP during months in which CU equaled or exceeded the projected post-merger CU is statistically indistinguishable from OTP during months in which CU remained below that level. This finding is consistent with the analysis based on HRD and indicates that the historical data do not show a statistically significant relationship between CU and passenger service performance.

²⁵ These Relevant Passenger Services include ACE, Metrolink (Riverside), METRA (UP West), and VRE.

²⁶ Data for the VRE do not have any months in which CU equaled or exceeded the projected post-merger CU for the selected segment. Therefore, there are no historical observations against which to compare periods in which CU exceeded the projected post-merger level. Detailed results for the Relevant Commuter Services are presented in Exhibit 2.

Figure 5. Comparison of Historical OTP Above and Below the Projected Post-Merger Capacity Utilization for the Relevant Commuter Services



Notes:

- [1] Each dot represents the estimated average difference in seasonally-adjusted OTP for a Relevant Commuter Service between months when historical CU for the corresponding Selected Segment equaled or exceeded projected post-merger CU and months when it did not. The vertical bars represent the 95% confidence intervals for those estimates.
- [2] The outcome variable is seasonally-adjusted OTP, which ranges between 0 and 1. In this analysis, OTP is expressed in percentage points (0 – 100) to assist with the interpretation of the coefficient. The reported coefficient is for an indicator variable equal to 1 if historical CU equals or exceeds projected post-merger CU, and 0 otherwise.
- [3] I use robust standard errors.
- [4] ACE has only one month in which CU for the corresponding Selected segment equaled or exceeded the projected post-merger CU.

Source:

- [1] Workpaper “PR-3 STB Supplemental.xlsx.”

34. The analysis above evaluates passenger service performance during historical months in which CU for the corresponding Selected Segment equaled or exceeded the projected post-merger level. For several Relevant Passenger Services, however, relatively few such months are available. Accordingly, I do not rely on these service-specific comparisons alone. In the next section, I estimate the relationship between passenger delay and CU using the full panel of

historical observations for the Relevant Amtrak Services. Unlike the service-specific comparisons, this approach uses the entire observed range of CU rather than only the months above the projected post-merger level. It also takes advantage of the full variation in CU rather than relying solely on whether the observed monthly CU was above or below the projected post-merger level. As a result, it provides a more comprehensive and statistically informative basis for assessing the relationship between passenger delay and CU.

VI. AFTER ACCOUNTING FOR DIFFERENCES ACROSS PASSENGER SERVICES AND SEASONAL PATTERNS, THERE IS NO STATISTICALLY SIGNIFICANT RELATIONSHIP BETWEEN PASSENGER DELAY AND CAPACITY UTILIZATION

35. In this section, I estimate the historical relationship between delay for the Relevant Amtrak Services and CU for the corresponding Selected Segments using a regression model with passenger service fixed effects and time (month and year) fixed effects.²⁷ The passenger service fixed effects account for persistent differences across passenger services that do not vary over time, while the time fixed effects account for seasonal patterns and other temporal factors that are common across observations. Together, these adjustments allow the analysis to isolate the historical relationship between changes in CU and changes in passenger delay within a given service over time.²⁸

36. I estimate two regression models. In the first, passenger delay (*i.e.*, HRD) for the Relevant Amtrak Services is measured in minutes. In the second, passenger delay is measured

²⁷ Passenger services are unique but multiple passenger services may use the same rail segment. Thus, controlling for passenger services is the same as controlling for passenger service-rail segment combinations. *See* Workpaper “PR-3 STB Supplemental.xlsx.”

²⁸ As noted in Section III, similar analysis studying the historical relationship between OTP and CU using the full panel dataset for the Relevant Commuter Services would not be appropriate.

using its natural logarithm, which allows the estimated relationship to be interpreted in percentage terms. In both models, the principal variable of interest is the CU of the Selected Segment during the corresponding month. Both models also include Relevant Amtrak Service fixed effects and time fixed effects, *i.e.*, both models account for persistent differences across passenger services and common monthly and yearly patterns.

37. Figure 6 summarizes the results of these regression analyses. Column [1] presents the model in which passenger delay is measured in minutes. In this specification, the estimated coefficient measures the *nominal change* in passenger delay associated with a one-percentage-point increase in CU. Column [2] presents the model in which passenger delay is measured in logarithmic terms. In this specification, the estimated coefficient measures the *percentage change* in passenger delay associated with a one-percentage-point increase in CU.²⁹ Although both estimated coefficients are positive (2.32 in the first model and 0.37 in the second model), neither is statistically distinguishable from zero at conventional significance levels.³⁰ Accordingly, after accounting for differences across passenger services and seasonal patterns, I do not find a statistically significant relationship between passenger delay for the Relevant Amtrak Services and CU for the corresponding Selected Segments.

²⁹ See Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach*, South-Western/Cengage Learning, 2009, pp. 43-46.

³⁰ See Daniel L. Rubinfeld, Reference Guide on Multiple Regression, in *Reference Manual on Scientific Evidence* 303, Federal Judicial Center & National Research Council eds., 3d ed. 2011, p. 431 (“In most scientific work, the level of statistical significance required to reject the null hypothesis (*i.e.*, to obtain a statistically significant result is set to conventionally 0.05, or 5%.”).

Figure 6. Regression Results
Relationship Between Capacity Utilization and Delays

	Passenger Delay	log(Passenger Delay)
Capacity Utilization	2.317	0.371
Standard Error	(5.913)	(0.463)
Number of Observations	1186	1186
Year Fixed Effects	8	8
Month Fixed Effects	12	12
Service Fixed Effects	19	19
R-Squared	0.711	0.735
Adjusted R-Squared	0.701	0.726

Notes:

- [1] Statistical significance is denoted using the following thresholds: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
 [2] In the linear specification (the “Passenger Delay” column), CU is expressed in percentage points (0 – 100) to assist with the interpretation of the coefficient. In the log-linear specification (the “log(Passenger Delay)” column), CU is expressed as a fraction that ranges between 0 and 1. Standard errors are clustered at the level of the fixed effects for both specifications.
 [3] Amtrak does not distinguish between the Michigan / Blue Water, Pere Marquette, and Wolverine services in its HRD data, and therefore the three services have duplicated data across all time periods. For this analysis, I include only the Michigan / Blue Water.
 [4] Data for the Capitol Limited are included in the analysis. Excluding the data from Capitol Limited from the regression analyses does not change my conclusions. *See* Workpaper “Figure 6, Note 4.xlsx.”

Source:

- [1] Workpaper “PR-3 STB Supplemental.xlsx.”

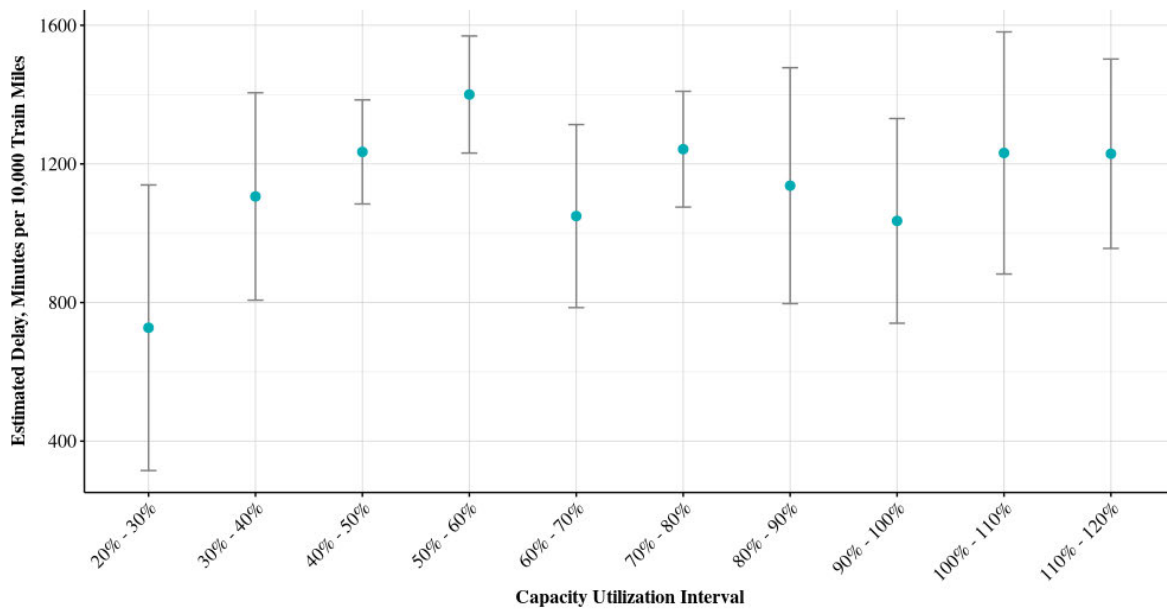
38. These findings are also robust to alternative statistical models. As a robustness check, I estimate an alternative statistical model that allows the relationship between passenger delay and CU to vary at different values of CU. Rather than estimating a single relationship across all observations, this model estimates the average passenger delay for the Relevant Amtrak Services associated with successive 10-percentage-point intervals of CU for the corresponding Selected Segments after accounting for differences across passenger services and seasonal patterns. This approach evaluates whether passenger delay begins to increase more sharply once CU reaches higher levels. It therefore tests whether the conclusions from the baseline regression models depend on the assumption that the relationship is linear.

39. Figure 7 summarizes the results of my analysis. For each CU interval, the figure displays the model-estimated delay and its 95% confidence interval. For the CU intervals above

40% and below 100%, the figure does not suggest that model-estimated delay increases as CU increases. I confirm this with a formal statistical test. Given that none of the 19 Relevant Amtrak Services included in this analysis has a projected post-merger CU that is lower than 40% CU or higher than 100% CU over its corresponding Selected Segment, I test whether passenger delay is different between consecutive CU intervals, after accounting for differences across passenger services and seasonal patterns. I find that the historical data do not support the conclusion that higher levels of CU for the Selected Segments are associated with systematically worse passenger delay for the corresponding Relevant Amtrak Services between the adjacent CU intervals above 40% and below 100%.³¹

³¹ I conduct pairwise tests between the adjacent CU intervals above 40% and below 100% to assess whether, after accounting for differences across passenger services and seasonal patterns, CU in one interval is associated with statistically different delays relative to the adjacent interval. No pairwise test for intervals 40%-50% up to 90%-100% shows a significant difference at the conventional 5 percent significance level, indicating the historical differences in delays between adjacent bins between 40%-100% are not statistically significant. *See* Workpaper “Footnote 31-1.xlsx.” The pairwise test indicates that delay is statistically different between intervals 90%-100% and 100%-110%, but this is likely driven by delay in 90%-100% being *lower* than in adjacent intervals. To confirm, I tested whether the difference in delay between intervals 80%-90% and 100%-110% is statistically significant and found that it is not distinguishable from zero at the conventional 5 percent significance level. *See* Workpaper “Footnote 31-2.xlsx.”

Figure 7. Estimated Passenger Delay by Capacity Utilization Interval



Notes:

- [1] Each dot represents a model-estimated delay value for a CU interval. The vertical bars represent the 95% confidence intervals for those estimates.
- [2] Each CU interval is exclusive of the start value and inclusive of the end value. For example, the interval “50%–60%” contains CUs that are strictly above 50% and less than or equal to 60%.
- [3] Amtrak does not distinguish between the Michigan / Blue Water, Pere Marquette, and Wolverine services in its HRD data, and therefore the three services have duplicated data across all time periods. For this analysis, I include only the Michigan / Blue Water.
- [4] Data for the Capitol Limited are included in the analysis. Excluding the data from Capitol Limited from the regression analyses does not change my conclusions. *See* Workpaper “Figure 7, Note 4.xlsx.”

Source:

- [1] Workpaper “PR-3 STB Supplemental.xlsx.”

40. Taken together, my analyses lead me to the conclusion that the projected merger-related increases in CU for the Selected Segments are not expected to result in statistically significant increases in passenger delay for the Relevant Passenger Services.

VERIFICATION

I, Kristof Zetenyi, declare under penalty of perjury that the foregoing is true and correct.

Further, I certify that I am qualified and authorized to file this statement.

Executed this 20th day of July, 2026.

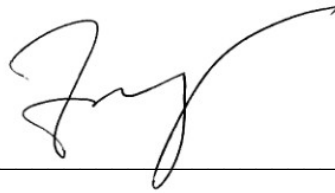


Exhibit 1. Comparison of Historical Passenger Delay Above and Below the Projected Post-Merger Capacity Utilization for the Relevant Amtrak Services

Relevant Amtrak Service	Delay Difference	Standard Error	p-value	Confidence Interval (95%)	R ²	Adj. R ²	Num. of Observations		
							Total	Above	Below
Capitol Corridor	-39.2	48.5	0.422	[-136.0, 57.6]	0.53	0.40	88	87	1
Floridian	-31.8	59.9	0.633	[-222.4, 158.9]	0.94	0.67	18	7	11
Gold Runner	149.9	177.2	0.400	[-203.7, 503.6]	0.46	0.31	88	77	11
Lake Shore Ltd	-168.3	148.8	0.265	[-468.9, 132.2]	0.67	0.54	59	28	31
Michigan / Blue Water, Pere Marquette, Wolverine	-171.5	302.3	0.574	[-782.0, 439.1]	0.69	0.56	59	28	31
Missouri River Runner	208.6	136.9	0.132	[-64.6, 481.9]	0.40	0.23	87	36	51
Pennsylvanian	-186.7	141.5	0.194	[-472.5, 99.1]	0.74	0.63	59	58	1
Richmond / Newport News / Norfolk	-107.5	81.0	0.192	[-271.1, 56.0]	0.58	0.40	59	57	2
Sunset Limited	55.2	80.6	0.495	[-105.5, 216.0]	0.78	0.71	88	69	19
Texas Eagle	6.1	161.1	0.970	[-315.4, 327.5]	0.65	0.55	88	84	4

Notes:

[1] Statistical significance is denoted using the following thresholds: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

[2] The outcome variable is HRD. The reported coefficient is for an indicator variable equal to 1 if historical CU exceeds or equals projected post-merger CU, and 0 otherwise.

[3] I use robust standard errors.

[4] The Capitol Corridor and Pennsylvanian each have only one month in which CU for the corresponding Selected Segment equaled or exceeded the projected post-merger CU. The Richmond/Newport News/Norfolk service has only two months in which CU for the corresponding Selected Segment equaled or exceeded the projected post-merger CU. The Texas Eagle has only four months in which CU for the corresponding Selected Segment equaled or exceeded the projected post-merger CU.

[5] Amtrak does not distinguish between the Michigan / Blue Water, Pere Marquette, and Wolverine services in its HRD data, and therefore the three services have duplicated data across all time periods. For this analysis, I include only the Michigan / Blue Water.

[6] Data for the Capitol Limited are not included in the analysis. Amtrak has temporarily consolidated the Capitol Limited and the Silver Star into the Floridian, so the interpretation of a projected post-merger CU for the Capitol Limited is unclear.

Source:

[1] Workpaper “PR-3 STB Supplemental.xlsx.”

Exhibit 2. Comparison of Historical Train OTP Above and Below the Projected Post-Merger Capacity Utilization for the Relevant Commuter Services

Relevant Commuter Service	OTP Difference	Standard Error	p- value	Confidence Interval (95%)	R ²	Adj. R ²	Num. of Observations		
							Total	Above	Below
ACE	0.3	0.8	0.686	[-1.30, 1.96]	0.30	0.10	88	87	1
METRA (UP West)	-1.8	1.2	0.154	[-4.30, 0.72]	0.52	0.25	42	31	11
Metrolink (Riverside Line)	-2.3	1.9	0.233	[-6.24, 1.59]	0.70	0.50	41	17	24

Notes:

[1] Statistical significance is denoted using the following thresholds: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

[2] The outcome variable is OTP, which ranges between 0 and 1. In this analysis, OTP is expressed in percentage points (0 – 100) to assist with the interpretation of the coefficient.

[3] I use robust standard errors.

[4] The reported coefficient is for an indicator variable equal to 1 if historical CU exceeds or equals projected post-merger CU, and 0 otherwise.

[5] ACE has only one month in which CU for the corresponding Selected segment equaled or exceeded the projected post-merger CU.

Source:

[1] Workpaper “PR-3 STB Supplemental.xlsx.”

APPENDIX A

KRISTOF ZETENYI, PH.D.

Vice President

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Los Angeles, CA 90071

Dr. Zetenyi specializes in industrial organization and platform economics. He has provided expert economic analysis and testimony on topics such as economic analysis of market definition, market power, and competitive effects. In antitrust matters, including horizontal and vertical mergers, he has supported experts on behalf of plaintiffs, defendants, and the US Department of Justice (DOJ). Dr. Zetenyi has substantial experience in class certification and damages spanning multiple industries, such as app distribution, advertising, and healthcare. Dr. Zetenyi also has extensive experience studying the platform business model, including its implications for market definition, market power, and competitive effects. He has given guest lectures on topics related to antitrust economics and platform economics at the Haas School of Business at the University of California, Berkeley and the University of Southern California. Dr. Zetenyi has been published in *Antitrust Report*, *Antitrust Magazine*, *The Antitrust Bulletin*, *Concurrences*, and *CPI Antitrust Chronicle*, and he currently serves as vice-chair of the Economics Committee of the American Bar Association (ABA) Antitrust Law Section.

EDUCATION

2014	Ph.D., economics, University of Rochester
2011	M.A., economics, University of Rochester
2009	B.S., mathematics and economics (<i>summa cum laude</i> , <i>Phi Beta Kappa</i>), University of Richmond

PROFESSIONAL EXPERIENCE

2014–Present	Analysis Group, Inc. <i>Vice President (2021–Present)</i> <i>Manager (2016–2021)</i> <i>Associate (2014–2016)</i>
2011–2014	University of Rochester <i>Lecturer, Teaching Assistant</i> Courses taught: <i>Principles of Economics (undergraduate)</i> , <i>Industrial Organization (undergraduate)</i> , <i>Intermediate Microeconomics (undergraduate)</i>
2012–2013	Simon School of Business, University of Rochester <i>Teaching Assistant</i> Courses taught: <i>Economics, Marketing and Strategy Primer for Entrepreneurs (M.A.)</i> ; <i>Database Marketing (M.B.A.)</i>

EXPERT WITNESS ENGAGEMENTS

- ***Confidential 340B Arbitration***
Retained by counsel for Claimant as an economic expert in an arbitration concerning Medicare Advantage reimbursement for 340B outpatient drugs.
- ***HDMI Licensing Administrator, Inc., v. Availink, Inc.***
Testified at deposition on behalf of counter-defendant HDMI LA to provide economic analysis of market definition, market power, and competitive effects.
- ***Janet Garcia, et al. v. City of Los Angeles***
Testified at deposition on behalf of the plaintiffs about the analysis of the removal, storage, and disposal of unhoused residents' personal property during their encampment cleanups pursuant to Los Angeles Municipal Code 56.11.

SELECTED ANTITRUST AND COMPETITION CONSULTING EXPERIENCE

- ***23XI Racing et al v. National Association for Stock Car Auto Racing (NASCAR)***
Supported the plaintiffs' damages expert through multiple expert report filings and trial testimony to quantify lost profits and diminution in value damages.
- ***Confidential merger review in the healthcare***
Supported expert for the Department of Justice during its evaluation of a proposed merger in the healthcare industry. Assessed issues related market definition, market power, and competitive effects.
- ***Confidential merger review in the agriculture industry***
Supported expert for the Department of Justice during its evaluation of a proposed merger in the agriculture industry. Assessed issues related to vertical foreclosure.
- ***Maximilian Klein, et al v. Facebook Inc.***
Supported the defendants' economic expert through multiple expert report filings to opine on class, liability, and damages issues.
- ***FTC v. IQVIA Holdings Inc. and Propel Media Inc.***
Supported the defendants' economic expert through expert report filing and trial testimony to opine on the role of digital advertising to health care providers and the widespread availability of health care data sources that are used in health care professional (HCP) programmatic advertising.
- ***USA v. Penguin Random House, LLC, and Simon & Schuster, Inc.***
Supported the defendants' economic expert through multiple expert report filings and trial testimony to opine on the potential competitive effects of the proposed acquisition of Simon & Schuster by Penguin Random House.
- ***In re: Blue Cross Blue Shield Antitrust Litigation***
Supported the provider plaintiff's expert to evaluate issues related to liability, including market definition, market power, and the assessment of harm to health care providers in Alabama.
- ***Confidential buyer market power matter***
Supported an expert in assessing allegations of monopsony claims in the agricultural industry.
- ***In re: Transpacific Passenger Air Transportation Antitrust Litigation***
Supported the defendants' expert to address issues related to class certification.

- ***DOJ's evaluation of John Deere's acquisition of Precision Planting***
Supported the DOJ's expert to develop relevant antitrust market definition and assess competitive effects and implications of the proposed acquisition.
- ***Canadian Competition Bureau re: Postmedia's acquisition of Sun Media***
Supported an expert from the Mergers and Monopolistic Practices Branch of Canada's Competition Bureau to assess Postmedia's proposed acquisition of Sun Media.
- ***In re: Optical Disk Drive Antitrust Litigation***
Supported the joint defense group's damages expert in multidistrict price-fixing litigation to assess damages to a class of US direct and indirect purchasers.
- ***Mexican Competition Commission's investigation of slot allocation at Mexico City Airport***
Performed analysis of the Mexican aviation industry, including analysis of prices for domestic air travel in Mexico, for a white paper submitted to Mexico's competition authority, the Federal Economic Competition Commission (COFEC), in 2014.
- ***Antitrust class action in the software industry***
Developed an affirmative damages analysis in a case involving allegations of the defendant overcharging consumers for its software product.

SELECTED PLATFORM CONSULTING EXPERIENCE

- ***In Re: Apple iPhone Antitrust Litigation***
Supported the defendant's expert to analyze the economics of two-sided platforms and their importance to questions of antitrust market definition, market power, and competitive effects in the context of class certification.
- ***Epic Games, Inc. v. Apple Inc.***
Supported the defendant's economic expert through multiple expert report filings and trial testimony to opine on the economics of two-sided platforms, and their impact on the assessment of market definition, market power, and competitive effects. Recognized by Global Competition Review as "Matter of the Year" and "Litigation of the Year – Non-cartel Defense" in the 2022 GCR Antitrust Awards.
- ***Class action involving issues related to allegation of courier misclassification by food delivery platform***
On behalf of food delivery platform, supported an expert in preparation of expert report on the platform business model.
- ***Multiple cases involving allegations of driver misclassification by ridesharing companies***
On behalf of a ridesharing company, supported an expert in the preparation of expert reports on the platform business model and potential impact of reclassification.
- ***Tri-City LLC, et al. (Lyft) v. New York City Taxi and Limousine Commission***
Supported an expert in analyzing the effects of the driver minimum-pay rule on drivers and passengers.

OTHER SELECTED CONSULTING EXPERIENCE

- ***Evaluation of Australia's Tobacco Plain Packaging Act before the World Trade Organization***
Supported the Commonwealth of Australia's economic expert to analyze the effect of Australia's Tobacco Plain Packaging Act on smoking prevalence.

- ***Odyssey Wireless v. Motorola Mobility LLC, et al.***
Supported the defendants’ expert to assess customers’ willingness to pay for certain cellular features pertaining to patent infringement allegations.
- ***Ageas shareholder litigation before the Tribunal de Commerce de Bruxelles***
Supported an expert in the assessment of the reasonableness of settlement terms in a securities class action involving a Belgian financial company.
- ***Class action litigation matters regarding front-loading washing machines***
Supported an expert for the plaintiffs in class action litigation matters against several manufacturers of front-loading washing machines to estimate damages due to alleged product defects.

PUBLICATIONS

Marketing Channel Differentiation Strategies and the Robinson-Patman Act, with Anthony Dukes, Brandon Norton, Laura O’Laughlin, *The Antitrust Report*, April 2026

Assessment of the Economic Costs of Imposing Abuse of Dominance Standards in New York State, with Big Banterngahansa, white paper, *Computer & Communications Industry Association*, May 2025

From Buffalo to Long Island: The Regional Economic Costs of New York State Adoption of Abuse of Dominance Standards, with Big Banterngahansa, white paper, The Business Council of New York State, May 2025

Platform Mergers in the Digital Age: Economics, Regulation, and Enforcement, with Rebecca Kirk Fair and Rebecca Scott, *Antitrust Magazine*, Volume 39, Issue 2, Spring 2025

Logit or Leave it? with Tom Beckford, *Competition Policy International*, August 2024

Assessment of Economic Costs of Imposing Abuse of Dominance Standards, with Eliana Garces and Big Banterngahansa, white paper, *Computer & Communications Industry Association*, May 2024

Data in the Digital Economy: the “Anti-Hero” of Antitrust or Just “Bad Reputation?” with Dheeraj Chaudhary, *Antitrust Chronicle – Economics of Data*, Volume 1, February 2024

Geographic Market Definition in Commercial Health Insurer Matters: A Unified Approach for Merger Review, Monopolization Claims, and Monopsonization Claims, with Deborah Haas-Wilson and Brian Gorin, *The Antitrust Bulletin*, Volume 68, Issue 3, September 2023

Efficiencies in the Second-score Auction Model, with Big Banterngahansa and Maria Eugenia Garibotti, *Concurrences*, Issue 2-2023, Article 112602, May 2023

Vehicle Upsizing Under the New CAFE Standard? An Application of Endogenous Characteristics Choice with Fixed Costs, working paper, 2014

PRESENTATIONS

Resale Price Maintenance Primer, ABA Antitrust Section Webinar (June 17, 2026)

Antitrust and Competition Issues related to the AI Stack, USC/Analysis Group Global Competition Law Thought Leadership Conference (June 4, 2026)

Guest Lecture on the Implications of AI for Antitrust Enforcement, University of Southern California Marshall School of Business (November 3, 2025)

“Big Data, Big Antitrust Questions,” chair and faculty at the ABA Antitrust Law Spring Meeting (April 2, 2025)

Guest Lecture on Platform Economics and Antitrust Economics, Haas School of Business at the University of California, Berkeley (March 31, 2025)

“Failure to Communicate? Improving Expert Testimony,” chair and moderator at the ABA Antitrust Law Spring Meeting (April 10, 2024)

Guest Lecture on Topics in Platform Economics, Antitrust Economics, and Competition Policy, University of Southern California (February 27, 2024)

“DOJ-FTC Merger Guidelines: Final Version 2024,” webinar panelist, New York City Bar Association (February 12, 2024)

Guest Lecture on the Role of Industrial Organization and Platform Economics in Antitrust Enforcement, University of Southern California (November 15, 2022)

Guest Lecture on Topics in Platform Economics and Antitrust and Competition, University of Southern California (April 26, 2022)

“Class Action Litigation: Demystifying Trends, Developments, and Best Defense Strategies,” webinar panelist, The Knowledge Group (February 9, 2022)

“How to Effectively Use Statistical Sampling in Class Action Litigation: Tips and Strategies in 2019,” webinar panelist, The Knowledge Group (December 13, 2018)

PROFESSIONAL AFFILIATIONS

American Bar Association (ABA)

Vice-Chair of the ABA Antitrust Law Section, Economics Committee for the 2023–2026 ABA year

Young Economist Representative of the ABA Antitrust Law Section, Programs and Teleseminars for the 2022–2023 ABA year

Young Economist Representative of the ABA Antitrust Law Section, Advisory Board of Section Reserves for the 2021–2022 ABA year

American Economic Association

Member

AWARDS AND FELLOWSHIPS

2009–2014 Graduate Fellowship, University of Rochester

2009 Robert L. Taylor Award for Excellence in Economics, for achieving the highest GPA among graduating economics majors, University of Richmond

2005–2009 Richmond Scholar, University of Richmond

LANGUAGES

English (fluent), Hungarian (native), Romanian (proficient), Spanish (beginner)