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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 STATEMENTS

Verified Statement of Katie Farmer

Verified Statement of Thomas Williams

Verified Statement of Craig Morehouse

Verified Statement of Dennis W. Carlton, Ph.D.

Verified Statement of Nicholas Hill, Ph.D.

Verified Statement of Michael R. Baranowski and Nathaniel S. Zebrowski

Verified Statement of William Wilson

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Verified Statement of Katie Farmer,
BNSF President & Chief Executive Officer

November 18, 2026

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1. I am the President and Chief Executive Officer of BNSF Railway Company ("BNSF") and have been since January 1, 2021. I joined Burlington Northern in 1992 as a management trainee. Since then, I have held positions across virtually every major BNSF function, including sales, marketing, finance, customer solutions, and network operations. Prior to becoming CEO, I led our operations team, and before that role, I led BNSF's largest business group as Group Vice President for Consumer Products. I earned bachelor's and master's degrees from Texas Christian University.

2. I have substantial knowledge about and experience in railroad operations, competitive dynamics, customer service, interline partnerships, and the regulatory environment governing the rail industry. I have personally overseen BNSF's participation in interline partnerships with other Class I railroads and witnessed how collaborative, non-merger approaches can achieve significant service improvements and provide innovative customer solutions. I have deep experience with rail customers. I am the only current Class I railroad CEO who has led large intermodal and carload commercial teams. Throughout my BNSF tenure, I have regularly spoken with customers to understand what they want and need from the railroad.

3. The proposed Union Pacific – Norfolk Southern merger is bad for shippers, bad for business, bad for the rail industry, and bad for the American economy. It would concentrate roughly half of the nation's Class I rail shipments on a single carrier, reduce competitive options that shippers rely on, raise rates, and risk

the service failures that followed every major rail merger. In my more than three decades at BNSF, I have seen first-hand how competition between and collaboration among railroads drives investment, innovation, and better service. The proposed merger would permanently eliminate much of that structural competition, replace it with a single dominant railroad, and reduce the opportunities for collaboration. Fewer competitors in our industry will lead to inflationary costs, less innovation, and more service disruptions. The proposed merger is not in the interest of our shippers or the rail industry. It is not in the public interest.

EXECUTIVE SUMMARY

4. **The Rail Industry Today Is Prepared For Growth.** Over the past few decades, the rail industry (and BNSF especially) has made substantial financial investments to increase reliability, consistency, service, and safety; decrease transit times; and create competitive services across various product areas and across the country. Today, the rail industry is dynamic, reliable, innovative, and competitive. Based on these investments, rail is primed for further growth, and rail is growing materially today in the intermodal space.

5. **The Proposed Merger Is Not Needed.** The proposed merger is not needed for growth, operational improvement, or better customer service. In fact, the proposed merger is the primary threat to the rail industry's growth, operational improvements, additional investment, and improved customer service. That conclusion is based on my years of experience dealing with and working directly with customers, my years investing in and improving operations on the BNSF railroad, my experience digging out of the serious operational and reliability issues that

plagued railroads and customers after prior major mergers, and the years of growing BNSF's intermodal business during diverse market cycles.

6. **Improvements in Growth, Operations, and Customer Service Are Available *Without* a Merger.** Growth, operational improvements, and innovative customer service are available *without* a merger. They are available—and achieved every day—through partnerships, collaboration, and investment. The merger is not needed for intermodal growth—the rail industry is converting truck-to-rail volumes today via intermodal, and opportunities to continue doing that exist even apart from the favorable market forces we are seeing today. The merger is not needed for operational improvements—investment, cooperation among railroads and other suppliers, and technology are improving operations every year. The merger is not needed for improved customer service—customers are not asking for this merger, and reliable service is already available for customers. All these things can and are happening today without a merger.

7. **My Testimony Is Informed By Direct Discussions with Customers.** My testimony is informed by frequent discussions and interactions directly with BNSF's customers. Farmers, manufacturers, chemical producers, retailers, and all our customers depend on the railroad every day for their livelihood, and they are the ones who will feel the impact of the merger first-hand. My team and I have listened to their views, and we have used our customers' concerns to shape BNSF's work in this proceeding, including the issues we have addressed, the evidence we have developed, and (should the merger be approved) the conditions we urge the

Board to adopt to attempt to mitigate some (but not all) of the harms the merger would cause.

8. My testimony is organized into three sections. ***First***, the growth UP and NS project as part of their application is already happening today in intermodal and is unlikely to materialize in the carload business *because of a merger* (rather than from other initiatives apart from mergers). Growth that is sustainable and durable comes from investment, partnerships, and innovative services, not consolidation. ***Second***, customers and other key industry stakeholders have not asked for this merger, and UP's history of failing to honor its promises in earlier mergers shows that its proposed commitments here cannot be trusted. Any potential efficiency benefits the potential merger offers are outweighed by the competitive and operational harms the merger will inflict. Customers want optionality, reliable service, and competitive rates; this merger threatens all three. ***Third***, a merger is not required to achieve the goals that UP and NS state that they seek to achieve. Transcontinental routes, improved service, reduced transit times, and truck competitiveness can be achieved through interline partnerships, targeted capital and technology investments, and coordinated operational improvements—all without the enormous risks and costs that accompany a Class I merger.

I. IMPROVED GROWTH, SERVICE, AND CUSTOMER SERVICE CAN BE ACHIEVED THROUGH COMPETITION, COLLABORATION, AND INVESTMENT—NOT CONSOLIDATION AND THE ELIMINATION OF COMPETITION.

9. To justify the proposed merger, UP and NS state that the rail industry is "fractured" and requires transformational consolidation for the industry to grow,

compete with other modes of transportation (most notably, trucks), and improve service.[1] NS CEO Mark George states: "We can only go so far independently. . . . We've been losing share of the truck. And this is one way to reverse that trend."[2] UP CEO Jim Vena claims a merger is necessary because "[i]f the rail industry does not move forward, it will be left behind."[3] To support their claim that a merger will lead to growth in rail, UP and NS project that a merger will divert a net of 1.53 million loads, with about 84% of their net diversions occurring in intermodal.[4] These projected diversions are based on a report that UP and NS retained Oliver Wyman to conduct with a base year of 2023.[5]

10. I fundamentally disagree not only with the idea that the industry is fractured but also with the idea that the only way to grow and compete is through consolidation. To the contrary, collaboration among Class I railroads and network investments are the keys to growth, efficiency, and future innovation. It is happening today, right in front of us. My customer-facing experience and the results of prior mergers prove that the projected truck-to-rail conversions will not occur *because of the proposed merger*. UP/NS's projected diversions *because of a merger* are directly

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1 Apr. 30, 2026, Am. App. Vol. 1 p. 278, Rocker/Elkins VS ¶ 9.

2 Norfolk Southern Corp. Q2 2025 Earnings Call (July 29, 2025), https://www.sec.gov/Archives/edgar/data/702165/000119312525168365/d943261d425.htm.

3 Jim Vena, *Moving America Forward*, Union Pacific (Oct. 22, 2026), https://www.up.com/news/people/3q26-vena-letter-261022.

4 Sep. 4, 2026, Am. App. Vol. 2 p. 404-05, Hunt VS ¶ 3, Ex. 2-4.

5 *See generally* Sep. 4, 2026, Am. App. Vol. 2 p. 388, Hunt VS.

undermined by the truck-to-rail diversions happening today without a merger and are unlikely to occur *because of a merger*. The projected diversions are the kind of projections a consultant can develop on a computer model but are untethered to the real world and what we hear from customers. The rail industry is converting volume from truck to rail today, and a single transcontinental railroad is not necessary to attain that growth. This is especially true in intermodal. A single transcontinental line controlled by one railroad will not generate more growth in intermodal. Customers do not ask for single-line service; they ask for reliable, consistent, and cost-efficient service.

A. Intermodal Rail is Experiencing Record-Setting Growth Now—*Without* the Merger.

11. Today, there are six Class I freight railroads in North America: BNSF, CN, CSX, CPKC, NS, and UP. The six Class I railroads, along with a growing shortline and regional railroad sector, provide shippers with competitive options and incentivize investment and innovation. The current industry structure—two Class I railroads each in the western United States (BNSF and UP) and the eastern United States (NS and CSX), and two additional Class I railroads serving Canada and parts of the Midwest (CN and CPKC)—has produced service improvements and efficiency gains that have made American freight railroads the most productive in the world.

12. Record-breaking intermodal growth is occurring under the industry's current structure. AAR reported that August, September, and October 2026 were the

"top three U.S. intermodal months ***ever***, including a new all-time high in October."[6] In October 2026, "[i]ntermodal rose 9.6% over last year," averaging "more than 298,000 intermodal units per week," the "highest weekly average ever for a month," and covering the "first, third, and fifth-best intermodal weeks ever."[7] "Year-to-date intermodal volume was up 4.7% through October, and this year will set a new annual record."[8] The growth that the industry saw in October builds on gains seen earlier this year: In August 2026, "U.S. railroads averaged nearly 297,000 intermodal containers and trailers per week," which itself set a (now broken) monthly record.[9] Combined U.S. carload and intermodal volume in August 2026 was the highest in nearly eight years.[10] September 2026 boasted similarly high numbers, including an average of about 295,000 intermodal containers and trailers per week.[11] BNSF's own experience confirms this growth: Our consumer products volumes (which include

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6 Association of American Railroads, *Rail Industry Overview* (Nov. 2026), https://www.aar.org/wp-content/uploads/2026/11/AAR-RIO-November-2026-Final.pdf (emphasis added).

7 Association of American Railroads, *Rail Industry Overview* (Nov. 2026), https://www.aar.org/wp-content/uploads/2026/11/AAR-RIO-November-2026-Final.pdf.

8 Association of American Railroads, *Rail Industry Overview* (Nov. 2026), https://www.aar.org/wp-content/uploads/2026/11/AAR-RIO-November-2026-Final.pdf.

9 Association of American Railroads, *Rail Industry Overview* (Sept. 2026), https://www.aar.org/wp-content/uploads/2026/09/AAR-RIO-September-2026-FINAL.pdf.

10 Association of American Railroads, *Rail Industry Overview* (Sept. 2026), https://www.aar.org/wp-content/uploads/2026/09/AAR-RIO-September-2026-FINAL.pdf.

11 Association of American Railroads, *Rail Industry Overview* (Oct. 2026),https://www.aar.org/wp-content/uploads/2026/10/AAR-RIO-October-2026-FINAL.pdf.

intermodal) were up about 5.6% and 5.4%, respectively, in Q3 and the first nine months of 2026, compared to the same periods in 2025.[12]

13. Carload volumes are also growing. In October 2026, "carloads rose 4.5%, above average for the year and far higher than the 2021-2025 average of 1.7%," excluding coal.[13] AAR reported that 15 of the 20 commodity categories it tracks had year-over-year gains in October,[14] and 17 of the 20 categories "had year-over-year carload gains, the most in five years," in September.[15] As AAR concluded, "[f]or months now, growth has spanned most traffic categories," which "is the signature of broad industrial resilience, not a one-off and not just market share gains from trucks, and it points to further growth in the months ahead."[16]

14. The growth in the rail industry, particularly in intermodal traffic, shows that our industry is growing organically. The industry-wide gains since 2023 are not a temporary rebound from a weak year; rather, they reflect lasting changes in how rail competes with truck and the result of meaningful investment by the railroads.

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[12] Berkshire Hathaway Inc. Form 10-Q at 39 (Q3 2026), https://www.berkshirehathaway.com/qtrly/3rdqtr26.pdf; *see also BNSF's Second Quarter 2026 Financial Performance: Volumes, Revenues and Expenses*, BNSF Railway, https://www.bnsf.com/about-bnsf/financial-information/pdf/performance-summary-q2-2026.pdf (reporting 9% and 5% increase in consumer products volumes in Q2 and first six months of 2026, compared to same periods in 2025).

[13] Association of American Railroads, *Rail Industry Overview* (Nov. 2026), https://www.aar.org/wp-content/uploads/2026/11/AAR-RIO-November-2026-Final.pdf.

[14] Association of American Railroads, *Rail Industry Overview* (Nov. 2026), https://www.aar.org/wp-content/uploads/2026/11/AAR-RIO-November-2026-Final.pdf.

[15] Association of American Railroads, *Rail Industry Overview* (Oct. 2026), https://www.aar.org/wp-content/uploads/2026/10/AAR-RIO-October-2026-FINAL.pdf.

[16] Association of American Railroads, *Rail Industry Overview* (Nov. 2026), https://www.aar.org/wp-content/uploads/2026/11/AAR-RIO-November-2026-Final.pdf.

Structural supply chain shifts are impacting truck rate economics and indicate that even if fuel prices decrease, intermodal units will not all convert back to truck. For example, the Federal Motor Carrier Safety Administration's non-domiciled Commercial Driver's License rule affects approximately 200,000 drivers as licenses expire, structurally tightening truck capacity through the cycle.[17] In addition, large shippers are making multi-year, structural commitments to intermodal without any merger.[18] And TTX Company, the railcar company owned by North America's major railroads, announced in 2024 that it planned to buy up to 4,000 new well cars for domestic containers, with deliveries starting in the fourth quarter of 2025.[19] These are multi-year contracts, networks, and fleets that will carry intermodal growth beyond the current truck-rate cycle.

15. UP and NS's own financial performance shows that they are thriving under today's industry structure. UP's CEO, Jim Vena, called it a "record-breaking year" when reporting 2025 results, and he touted that "net income grew 6%, earnings per share increased 8%, and [UP] improved [its] operating ratio."[20] When reporting

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[17] Federal Motor Carrier Safety Administration, *Restoring Integrity to the Issuance of Non-Domiciled Commercial Drivers Licenses (CDL)*, Doc. No. 2026-02965 at 7095, 7097 (Feb. 13, 2026), https://www.federalregister.gov/documents/2026/02/13/2026-02965/restoring-integrity-to-the-issuance-of-non-domiciled-commercial-drivers-licenses-cdl.

[18] *E.g.*, Amazon News, *Amazon Launches Amazon Supply Chain Services, Opening Its Logistics Network to All Businesses* (May 4, 2026), https://www.aboutamazon.com/news/retail/amazon-supply-chain-services-for-business.

[19] Railway News, *TTX Company: Future of Intermodal Railcar Fleet Expansion*, (Nov. 3, 2025), https://railwaynews.net/ttx-company-future-of-intermodal-railcar-fleet-expansion.html.

[20] Union Pacific, *Union Pacific Reports Fourth Quarter and Full Year 2025 Results* at 1 (Jan. 27, 2026), https://investor.unionpacific.com/static-files/5e6be23b-f44f-4e1c-b4cd-fb05540dddc7.

Q3 2026 results, UP reported "record financial results as net income totaled $2.1 billion" and earnings per share increased 15%.[21] NS is having a record-breaking performance as well: When reporting Q3 2026 results, NS reported "14% overall revenue growth" and "an all-time record for revenue less fuel."[22] This success rests not on a merger, but on each railroad's investment, service, partnerships, and competition among the railroads—all of which help ensure that when market conditions change, intermodal freight stays on rail.

B. UP/NS's Projected Carload Growth Will Not Occur *Because of the Merger.*

16. UP/NS project that 15% of their net diversions will come from carload customers.[23] That level of carload growth will not materialize *because of the merger*. Rail already offers the lowest-cost way to move carload commodities that depend on economies of scale. Growth will come from investment and innovation, not consolidation.

17. Carload is already rail-competitive, with customers choosing to ship via rail because of the economies of scale, the price advantage of rail over truck, reliability, and optionality. For instance, BNSF is responsible for moving enough grain every year to supply 730 million people with a year's worth of bread.[24] Our

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[21] Ex. 1, Union Pacific Corp. Q3 2026 Earnings Call Transcript at 4 (Oct. 22, 2026).

[22] Ex. 2, Norfolk Southern Corp. Q3 2026 Earnings Call Transcript at 5 (Oct. 22, 2026).

[23] Sep. 4, 2026, Am. App. Vol. 2 p. 404-05, Hunt VS ¶ 3, Ex. 2-4.

[24] BNSF Railway, *Going with the Grain to Serve Elevators Big and Small* (Nov. 8, 2023), https://www.bnsf.com/news-media/railtalk/service/grainshuttlegrowth.html.

agricultural customers utilize our grain shuttles to move their grain because it is heavy, travels long distances, and is thus well-suited for rail. Similarly, our 100-car aggregate trains provide economies of scale for our customers that are unmatched by truck. Carload customers also choose to use rail to move hazardous materials because of the safety benefits of having fewer trucks moving those materials on highways.

18. Even though carload is already rail-competitive, it is important to consider *where* on the network UP and NS project carload growth. I understand that UP and NS are projecting carload growth in low-density lanes.[25] In my experience, rail success in low-density lanes requires lower rates and shorter trains—the antithesis of UP's (PSR) model. For instance, low-density lanes likely do not have the infrastructure to support UP's large trains. To achieve their projected growth in these low-density lanes, UP/NS would have to make significant investments to have the requisite infrastructure to provide service in low-density lanes. Even assuming that this growth in low-density lanes is possible, I have not seen commitments from UP/NS that would facilitate this growth or change their business model.

C. Growth Comes from Investment, Partnerships, & Customer-Driven Services.

19. Growth depends on sustained investment and innovation to meet the needs of a modern, evolving economy. Across the Class I railroad sector, carriers have invested billions of dollars in network improvements, capacity expansion, technology upgrades, and safety enhancements. For its part, BNSF has invested tens of billions

[25] *See* Sep. 4, 2026, Am. App. Vol. 2 p. 428, Hunt VS Ex. 4-6.

of dollars in its network over the past decade, and other Class I carriers have made similarly substantial commitments. BNSF operates the largest railroad-owned well-car fleet in the industry, which allows us to safely double stack containers and increase our capacity. We have also focused on improved ETAs and technology-enabled visibility, and we are leveraging AI and advanced analytics to anticipate issues, reduce disruptions, and provide customers with predictability across their supply chains. With strong rail offerings that focus on key service metrics, like transit time, reliability, and consistency, we have seen customers redesign their supply chains to support rail transportation on a more permanent basis.

20. BNSF's industry-leading intermodal growth did not happen by accident. It is the result of sustained investment and service choices that ensure that the growth the rail industry is currently experiencing will be sustainable and durable—not simply the result of favorable market conditions. That is evident from our growth since our formation in 1995. For instance, as of 2024, BNSF's total volumes had increased 30% since our formation in 1995 while total volume across the rest of the Class I railroads declined.[26] That long-term growth is in large part attributable to listening to customers and adapting and expanding our products to provide the most value and capture additional freight. The offerings described below, for both intermodal and carload customers, illustrate BNSF's approach.

[26] Written Testimony of Tom Williams, *Growth in the Freight Rail Industry*, EP 775, Doc. No. 308668 at 1 (STB entered Aug. 30, 2024).

1. BNSF's Innovative Service Offerings for Intermodal Customers

21. BNSF offers innovative services to address what our intermodal customers value most. Most of our intermodal customers value price, reliability, and optionality above all. That is confirmed by the 2025 Shipper Survey conducted by Oliver Wyman (which is a retained consultant for UP and NS in this proceeding). Oliver Wyman concluded that price and shipment management / on-time reliability were by far the top factors that influenced whether shippers chose to use truck or rail. Oliver Wyman concluded that transit time/speed was only listed as the top factor for about 6% of survey respondents.[27] Shippers generally do not choose rail simply because a rail move can be handled by a single railroad.

22. Instead, BNSF's service offerings provide shippers with the price and reliability they value. For instance, we have spent decades (and almost {{ }} billion since 2005) double-, triple-, and quadruple-tracking our transcontinental route from Southern California to Chicago. Our Southern Transcon route is BNSF's primary route for intermodal, and as demand over this route has increased (particularly for high-priority containers), we have expanded our route to ensure that we can meet that demand. Multiple tracks improve capacity, and capacity improves traffic flow, efficiency, and reliability, all of which benefit our rail customers.

23. We have also created intermodal logistics parks to create cost-effective and streamlined shipping solutions for our intermodal customers. By anchoring our

[27] James Miller & Michelle Bowling, *Bridging the Gap: Strengthening North American Freight Railroad Customer Connections*, Oliver Wyman at 7 (2025), https://www.oliverwyman.com/content/dam/oliver-wyman/v3/bridging-the-gap.pdf.

logistics parks at intermodal hubs (such as Kansas City, Chicago, and Fort Worth), we bring together warehouse and distribution operations with access to multi-modal infrastructure (including trucking and rail).[28] Our logistics parks offer shorter drays and the ability to easily reach major markets across the country, which leads to faster replenishment cycles; improved speed, reliability, service, and efficiency; and lower costs for our intermodal customers.[29]

24. The Barstow International Gateway (BIG) is one example of our logistics park offerings. BIG is BNSF's state-of-the-art, $1.5 billion rail facility and logistics hub that is currently under construction in Southern California.[30] It is the first-of-its-kind facility developed by a Class I railroad that was designed to provide seamless end-to-end intermodal service by offering the only direct rail connection from ships at the Ports of Los Angeles and Long Beach inland to Southern California transloading. Intermodal customers will have direct access to BNSF's network to head east across the country (and vice versa).[31] BIG will be the largest intermodal

[28] We also are in the process of opening logistics parks in Barstow (via our BIG project) and Phoenix. BNSF Railway, *Logistics Park Phoenix*, https://bnsflpp.com/.

[29] BNSF Railway, *BNSF Logistics Park*, https://bnsf.com/develop/co-locate; BNSF Railway, *BNSF Intermodal Resource Guide 2026* at 10-15, https://bnsf-com-media-ocp-prod-use2.s3.us-east-2.amazonaws.com/documents/2026-intermodal-resource-guide.pdf.

[30] BNSF Railway, *Barstow International Gateway Project* (2026), https://bnsfbig.com/.

[31] BNSF Railway, *Barstow International Gateway Project* (2026), https://bnsfbig.com/; BNSF Railway, *BNSF Intermodal Resource Guide 2026* at 14-15, https://bnsf-com-media-ocp-prod-use2.s3.us-east-2.amazonaws.com/documents/2026-intermodal-resource-guide.pdf.

facility in North America, boasting the capacity for 1.3 million annual lifts when fully built out.[32]

25. BIG reflects BNSF's vision of the future. It was designed to lower drayage costs and transit times and increase supply chain resiliency, consistency, and reliability for intermodal customers.[33] These benefits allow us to better support interline moves with NS, CSX, and other Class I partners, including by building density and blocks in the west that can run deep into the networks of an eastern partner. Our capabilities at BIG will allow us to decrease port-to-transload times by at least one day (if not two) compared to UP's Inland Empire intermodal facility. We also expect to provide the fastest routes from Southern California to key U.S. markets.[34] The supply chain efficiencies created by BIG pass down economic benefits to shippers and consumers alike, and these efficiencies compound as they continue to incentivize growth in the rail industry. Rather than spending tens of billions of dollars on a merger that customers have not asked for and that will destroy optionality, BNSF believes that investments like BIG maintain the optionality, competitive options, consistency, and service that our customers want and deserve.

26. Our interline partnerships also ensure that we can provide the price and reliability that our intermodal customers expect, along with the transit time that a

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[32] BNSF Railway, *BNSF Intermodal Resource Guide 2026* at 14, https://bnsf-com-media-ocp-prod-use2.s3.us-east-2.amazonaws.com/documents/2026-intermodal-resource-guide.pdf.

[33] BNSF Railway, *BNSF Intermodal Resource Guide 2026* at 14-15, https://bnsf-com-media-ocp-prod-use2.s3.us-east-2.amazonaws.com/documents/2026-intermodal-resource-guide.pdf.

[34] BNSF Railway, *BNSF Intermodal Resource Guide 2026* at 15, https://bnsf-com-media-ocp-prod-use2.s3.us-east-2.amazonaws.com/documents/2026-intermodal-resource-guide.pdf.

subset of customers value. For instance, we offer multiple coast-to-coast intermodal solutions with CSX, which I describe below.

27. Our time- and service-sensitive domestic intermodal customers value reliability, transit times competitive with single-driver truck, visibility, and service recovery plans. To meet these needs, we partnered with J.B. Hunt to offer intermodal services that provide customers with reliable and fast intermodal service that leverages the unique expertise of both J.B. Hunt and BNSF.

28. Quantum is a good example of our successful partnership with J.B. Hunt. Quantum is an intermodal service that provides at least 95% on-time delivery, a 60% reduction in carbon footprint vs. over-the-road transportation, and 24/7 door-to-door oversight.[35] Notably, we designed the Quantum product to expand the addressable intermodal market, not simply compete for incremental freight that already moved in intermodal lanes. We do not sell Quantum on speed; we sell it on consistency, reliability, visibility, and contingency planning. If something goes wrong with the rail portion, the shipment moves to truck with J.B. Hunt, so the customer is protected and receives an on-time delivery. That allows us to take freight with a high cost of failure—freight that would otherwise never consider rail—and move it to rail. This partnership addresses the concern of customers with service-sensitive and high-cost-of-failure freight that had hesitated to use intermodal because traditional rail

[35] BNSF Railway, *Quantum: A J.B. Hunt - BNSF Service*, https://www.bnsf.com/ship-with-bnsf/intermodal/quantum-services/quantum-services.html.

service could not always provide the required consistency and timeliness. Quantum shows that we can.

29. For instance, a major consumer products company that had not used intermodal before because of consistency concerns recently began using Quantum to deliver its customer freight directly. It switched because Quantum delivered consistency comparable to over-the-road truck and delivered shipments as promised, with no delays. By focusing on consistency and reliability, Quantum has opened the door for a wide variety of service-sensitive shippers to use rail for their highway shipments. In fact, we were able to expand Quantum to Mexico and partner with GMXT / FXE to provide additional options for shippers sending freight to Mexico.[36]

30. Quantum demonstrates that the transit time, consistency, and reliability benefits that UP and NS attribute to single-line service can be delivered through partnerships and contingency planning—not common ownership of the entire route.

2. BNSF's Innovative Service Offerings for Carload Customers

31. BNSF has also created innovative service offerings to support commodities beyond intermodal. For instance, our carload/merchandise customers generally value rates, optionality, and service recovery. To meet these needs, we developed our Shortline Select program, along with our First Mile/Last Mile team

[36] Susan Green, *Quantum De México to Carry on Tradition of Intermodal Excellence, Innovation*, BNSF Railway (June 18, 2025), https://www.bnsf.com/news-media/railtalk/service/Quantum-de-Mexico.html; J.B. Hunt, *J.B. Hunt, BNSF and GMXT Launch Quantum de México for Service-Sensitive Freight Delivery* (May 30, 2025), https://www.jbhunt.com/our-company/newsroom/2025/05/quantum-de-mexico.

and logistics centers. We rolled out our Shortline Select program in 2024, which is a partnership between BNSF and a number of shortlines—including Genesee & Wyoming's Alabama & Gulf Coast Railway, Burlington Junction Railway, Genesee & Wyoming's Portland & Western Railway, TNW Corporation's Texas Northwestern Railroad and Red River Valley & Western, and Watco's Timber Rock Railroad.[37] Because about one-third of BNSF carload freight originates or terminates on a shortline, we launched this program to increase terminal efficiency and provide more frequent local service. In addition, in June 2025, we launched a First Mile/Last Mile team to grow our carload volumes and help deliver the reliability and consistency our customers expect.

32. We have also developed logistics centers for our carload customers that provide direct-rail service on shovel-ready sites in multi-customer, multi-commodity business parks.[38] Our logistics centers are designed for both manifest mixed-freight and unit train customers, and they are primarily located in under-served, strategic markets, including Oklahoma City, Denver, Houston, and Dallas-Fort Worth markets. They can cut up to nine months off customers' development timeline. All these services provide the optionality that our carload customers desire.

33. Our shuttle program is another example of how investments, partnerships, and innovation deliver benefits to customers and help us grow. Our

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[37] BNSF Railway, *BNSF Shortline Select Railroad*, https://www.bnsf.com/ship-with-bnsf/ways-of-shipping/shortline-services/Shortline-Select/index.html.

[38] BNSF Railway, *Logistics Centers*, https://www.bnsf.com/ship-with-bnsf/rail-development/logistics-centers.html.

carload customers who use unit trains (such as coal sets and grain shuttles) value capacity, car supply, and predictable cycle times. To meet those needs, we became the first Class I railroad to implement shuttle services, launching our grain shuttle program in 1996 and solidifying our commitment to and partnership with the agriculture industry. We move more agricultural products than any other North American railroad, and 80% of our grain is transported using our innovative shuttle service.[39] Harvest compresses demand into a short window, and our shuttle trains are a dedicated service that moves high volumes of a single commodity (like grain, soybeans, or corn) from a single origin to a single destination while only stopping for fuel and crew changes. Our shuttle program was developed to have sufficient equipment to move those large volumes of commodities quickly and reliably from country elevators to processors and export facilities, and then quickly turn that equipment around so that our shuttle can move on to serve the next elevator or customer. We started with four shuttle loading facilities, and we've grown to 265 shuttle loading facilities today.[40] This year, we expect to run 140 shuttles during peak harvest.[41]

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[39] BNSF Railway, *Going with the Grain to Serve Elevators Big and Small* (Nov. 8, 2023), https://www.bnsf.com/news-media/railtalk/service/grainshuttlegrowth.html.

[40] BNSF Railway, *Mountain West: Connect the Mountain West to North American Markets*, https://bnsf.com/ship/by-region/mountain-west.

[41] Susan Green, *BNSF to Agricultural Producers: We're Focused on Moving Your Grain Through Harvest and Beyond*, BNSF Railway (Sept. 16, 2026), https://www.bnsf.com/news-media/railtalk/service/fall-harvest-26.html.

34. BNSF's growth experience reflects how the industry works. With six healthy Class I railroads, carriers compete with one another for traffic at gateways, in overlapping markets, and through competing interline routes, and they compete with trucks for nearly every intermodal and many carload moves. That competition is what has pushed railroads, including BNSF, to invest in capacity, technology, and service and to form partnerships with one another to win business and create growth that is sustainable, durable, and here for the long haul. The future of rail growth lies in continuing to follow this proven model, not in further consolidation.

II. CUSTOMERS DID NOT REQUEST AND DO NOT WANT THE MERGER.

35. In my experience, a merger this consequential would come for one of three reasons: (i) customers are asking for it, (ii) public policymakers are pointing the industry toward a different structure, or (iii) a railroad is in financial trouble and needs a path to stability. None of those are present here. First, this merger did not begin with customers asking for it. Second, no public policymakers were pushing for further consolidation in the rail industry. And third, there is no financial peril or credible risk of financial peril here for UP and NS. Instead, this is a merger based on financial premiums and amassing market power. The financial benefits of the proposed merger will go to NS's shareholders in the form of the substantial market premium built into UP's proposal, and financial benefits will go to UP's shareholders as profits increase due to the market power created by the proposed merger and UP's higher pricing. Those benefits have a cost; someone needs to pay for them, and those costs will be paid out of the pockets of shippers and American consumers.

36. BNSF's participation in this merger review process has been grounded in understanding the impacts that this merger will have on our customers and on the American consumer who relies on them. My conversations with customers focus on key questions: Will consolidation result in lower or higher rates? Will fewer railroads reduce optionality for my shipping needs or effectively close lanes to competition that I rely on today? Is the claimed benefit of this merger worth the risk of significant service challenges that have accompanied every major merger? The resounding response that my team and I hear in response to those questions is that this merger would result in fewer competitors in the industry and mean higher costs, less flexibility and innovation, and more disruptions.

37. There has been opposition from key rail industry stakeholders across multiple sectors of the economy, including shippers across major commodity groups served by the freight railroad industry, communities, government, and labor organizations. In addition to the customers I have spoken with, shipper associations and state attorneys general have filed opposition to the merger.

38. For example, numerous letters opposing the proposed merger have been filed from the agriculture and chemical industries (among the most rail-dependent industries in the country). I am not surprised that there has been significant opposition from carload customers, as carload customers that relied heavily on western rail networks and who could not easily turn to truck were the most harmed by the UP/SP merger, and they do not want a repeat experience.

39. Many customers—including key rail customers in the agriculture, steel, and sugar industries—have highlighted the risks this merger presents in their opposition letters:

- *American Farm Bureau Federation*: "[The merger] would leave farmers more dependent on fewer railroads at a time when they already have almost no ability to walk away from higher costs or poor service. The merger does not create new competition for agriculture. It removes what little leverage remains by eliminating key routing and interchange options that currently help keep rates and service in check. When that pressure disappears, history shows that farmers do not ship less — they get paid less."[42]

- *American Iron and Steel Institute*: "AISI is concerned that this merger, given its unprecedented scope and scale, would undermine market competition, resulting in a freight system that reduces the ability of American manufacturers to compete with foreign competitors."[43]

- *South Dakota Soybean Association:* "The South Dakota Soybean Association (SDSA) is concerned that the proposed merger between Union Pacific and Norfolk Southern could result in supply chain disruptions and increased transportation costs for soybean farmers in South Dakota, as has been demonstrated in past rail mergers."[44]

- *United Sugar Producers and Refiners:* "It is clear USPR will have less competitive options and pay higher rates due to the merger. This will hurt the hardworking farmers who own USPR and grow the sugar beets and cane that are refined into processed sugar, but the consequences do not end there. Higher rates from the UP/NS merger will be passed on to businesses that use sugar to make their products or be borne by our farmer members, or both."[45]

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[42] Daniel Munch, *Proposed Rail Merger Comes at Farmers' Expense*, Farm Bureau (Mar. 11, 2026), https://www.fb.org/intel/markets/proposed-rail-merger-comes-at-farmers-expense.

[43] Letter from American Iron & Steel Institute, FD 36873, Doc. No. 311474 at 1 (STB entered May 26, 2026).

[44] Letter from South Dakota Soybean Association, FD 36873, Doc. No. 310764 at 2 (STB entered Jan. 20, 2026).

[45] Letter from USPR Producers & Refiners Cooperative, FD 36873, Doc. No. 311986 at 2 (STB entered Aug. 26, 2026).

40. Unions representing more than 70 percent of the combined railroad's unionized workforce oppose the merger. I speak with union leadership and members regularly, and they are all concerned about maintaining job and labor protections, safety, line sales and transferred work, and the unprecedented market power that a consolidated UP/NS would wield. Their perspective is reflected in their opposition statements:

- *Transport Workers Union (TWU)*: "'Union Pacific has a shameful safety record and was caught by the federal government trying to meddle in a safety audit. There is no world where Union Pacific should be controlling a coast-to-coast rail network[.]' . . . 'A supersized Union Pacific would be catastrophic for TWU rail workers, shippers, and the safety of millions of Americans who live and work near freight rail lines.' . . . 'They are not to be trusted by railroad workers nationwide and the TWU will fight any attempt to ram through a merger that Wall Street might like but is bad for railroad workers and the safety of everyone.'"[46]

- *Brotherhood of Locomotive Engineers and Trainmen (BLET)* & *Brotherhood of Maintenance of Way Employees Division (BMWED) (Teamsters Union)*: "The Teamsters investigated the terms of the acquisition for five months, held meetings with members nationwide, and directly negotiated with Union Pacific's and Norfolk Southern's leadership. Executives from both carriers — particularly Union Pacific — refused to make real commitments to protect the jobs and address the concerns of our members. Union Pacific and Norfolk Southern have worrying histories when it comes to protecting workers and communities. . . . They have given us every reason to believe these problems would only grow worse if the merger is approved under its proposed terms."[47]

- *Brotherhood of Railroad Signalmen*: "The merger would also consolidate unprecedented control over the nation's rail infrastructure. By combining two of the largest Class I railroads, the transaction would reduce

[46] Transport Workers Union of America, *TWU Strongly Opposes Union Pacific-Norfolk Southern Merger* (July 29, 2025), https://www.twu.org/twu-strongly-opposes-union-pacific-norfolk-southern-merger/.

[47] International Brotherhood of Teamsters, *Teamsters Statement Opposing Proposed Union Pacific-Norfolk Southern Merger* (Dec. 17, 2025), https://teamster.org/2025/12/teamsters-statement-opposing-proposed-union-pacific-norfolk-southern-merger/.

> competition across key corridors, limit shipper options, and concentrate nearly forty percent of U.S. rail freight under a single corporate entity. History shows that this level of consolidation leads to service disruptions, higher costs, job losses, and weakened oversight—outcomes that are inconsistent with the public interest."[48]

Individual workers who are members of these unions have also filed letters of protest.[49]

41. This broad-based opposition is grounded in multiple concerns, but three themes particularly come through: loss of optionality, integration risk, and higher prices. I address each in turn.

A. Customers Want Optionality—The Proposed Merger Plainly Limits It.

42. Customers want options in deciding among rail providers and services. For instance, one of BNSF's intermodal partners, J.B. Hunt, values optionality: "[W]e have two Eastern rail providers for a reason. We like to have both [] CSX and Norfolk Southern . . . they both do things that the other one doesn't do. And so that gives us a lot of strength in our network to have access to both."[50]

43. Optionality drives competitive pricing; incentivizes railroads to invest in service quality, infrastructure, and capacity; and ensures shippers are not captive to a single carrier's pricing or service decisions. But a merged UP/NS would take

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[48] Brotherhood of Railroad Signalmen, *BRS Opposes Proposed Union Pacific–Norfolk Southern Merger* (Jan. 17, 2026), https://www.brs.org/index.cfm?zone=/unionactive/view_article.cfm&HomeID=979232.

[49] *Comments and Protest of Anthony Guiliante in Opposition to the Revised Application*, FD 36873, Doc. No. 312501 (STB entered Sept. 29, 2026).

[50] Ex. 3, J.B. Hunt Transport Services, Inc. Company Conference Presentation at 7 (Dec 2, 2025).

away optionality, and it would be able to extract even higher prices from captive carload shippers without having to put in the work and investments to maintain their business. A single transcontinental railroad (like a combined UP/NS) would have much less incentive to solve integration issues or innovate and improve service and customer experience. Instead, a combined UP/NS would be incentivized to get and keep traffic on its own line for the longest possible haul, even if interchanging with another railroad would give the shipper faster, more reliable, or cheaper service. It could do so by pricing interline routes less attractively, giving connecting traffic lower priority at gateways, or steering customers toward its single-line product. UP itself warned of exactly this risk just a few years ago in the CPKC proceeding, telling the Board that the merged carrier "would face enormous post-merger pressure to divert traffic from existing KCSM interline service to CPKC single-line service using strategies that reduce shippers' existing competitive options," including by "raising rates shippers must pay for interline service or degrading the quality of service shippers receive when using interline service."[51]

44. If the Board approves the merger, customers will have less optionality and flexibility, with about 50% of U.S. rail freight originated by Class I railroads consolidated on one railroad.[52] That level of concentration is unprecedented, and it would fundamentally alter the competitive landscape of the freight railroad industry.

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[51] Union Pac. R.R. Co.'s Comments & Req. for Conditions, FD 36500, Doc. No. 304028 at 26 (STB entered Feb. 28, 2022).

[52] BNSF Railway, *Not All Market Share Metrics Tell the Same Story*, https://www.bnsf.com/ship-with-bnsf/preserve-rail-competition/Merger-Market-Share-Facts.pdf.

Shippers today who can obtain competitive bids from two major carriers, UP and NS, will, after the merger, face a single combined entity with much less incentive to offer favorable pricing or superior service.

45. UP does not offer any real commitments to address the harms that would flow from the proposed merger. UP commits to "preserving access to gateways" and to "quote commercially reasonable interline rates,"[53] but those commitments are not commitments in practice. The Board would leave it to UP to determine what is "commercially reasonable" in the marketplace. UP's commitment to preserve two-carrier access has been similarly narrow and has shifted over the course of this proceeding. When UP and NS filed their application, Mr. Vena described the 2-to-1 commitment as covering only five customer locations.[54] Only after shippers, other railroads, and the Board raised concerns did UP and NS supplement that commitment to cover both 2-to-1 and 3-to-2 shippers.[55] A commitment that expands only under regulatory pressure, and whose scope UP itself defines, is not a durable protection for shippers.

46. History shows why such commitments provide little comfort. Despite CPKC's "open gateway" commitments as part of its merger, foreclosure occurred at the Laredo, Texas gateway, a key route between the United States and Mexico. Even as BNSF experienced increased demand for its US – Mexico traffic, BNSF was forced

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[53] Apr. 30, 2026, Am. App. Vol. 1 p. 231, Vena VS ¶ 48.

[54] Apr. 30, 2026, Am. App. Vol. 1 p. 231, Vena VS ¶ 48.

[55] *See* UP-80/NS-78 (July 27, 2026) at Supp. Pages 9, 53-58.

to reroute its Mexico traffic from Laredo to Eagle Pass, a longer, less-efficient route. My colleagues, Craig Morehouse and Tom Williams, discuss Laredo in more detail. I mention the Laredo gateway issue here to demonstrate that even recent merger commitments have failed to prevent harms that cascaded down to competing railroads, like BNSF, and caused us to incur significant costs and operational expenses and forgo the most efficient route for our shippers.

47. In addition, while UP and NS have made general commitments in their application to preserve Class I rail options for 3-to-2 and 2-to-1 shippers, that is not sufficient to alleviate the competitive harms and loss of optionality that will result. The affected shippers may not be easily reached or served by other carriers. Access on paper does not equal access, or effective competition, in the real world. Shippers also benefit from build-out and transload options, from leverage over where to site plants (decisions that are often made years before a plant is even built), and from the ability to shift production between carriers—harms that are difficult to remedy under UP and NS's proposal. And on top of all that, UP and NS's commitment only claims to keep competition where it currently is—not to enhance it.

48. Optionality does not just matter for pricing; it also matters for customers when things go wrong. Over my career, I have seen that when one railroad suffers a service failure, customers shift business to another carrier, and the network as a whole recovers more quickly. Other railroad carriers are critical during disruptions to provide alternative routings and workarounds. After the merger, it will be far harder for customers to send business elsewhere and far harder for the network to

recover—particularly where, if UP and NS's diversions are to be believed, the merged railroad will be operating at high capacity with little to no planned investment in additional capacity. Optionality speeds recovery and ensures resilience, and the proposed merger plainly reduces that.

49. Mr. Vena states that a merger is needed because customers want "one bill, one contact,"[56] and that interline service forces customers "to deal with two separate railroads when they shop, ship, and pay, and when they seek accountability for service."[57] These statements are not reflective of how interline service works for customers today, and I disagree that a merger is needed to achieve this goal. For interline pricing, customers already contract with a single railroad, which conveys and collects the charges for the interline portion of the haul. BNSF does this every day. For instance, our customers moving freight between Southern California and Atlanta deal with BNSF, even though part of the trip runs over CSX. Our interline intermodal customers largely already deal with a single point of contact because many of them transact with intermodal marketing companies (IMCs), not each of the individual railroads. For our intermodal customers using J.B. Hunt, they receive a single door-to-door quote from one company for a truck-to-rail move. Where a shipment touches two railroads, it is our job, not the customer's, to coordinate with our partner behind the scenes. In other words, the single point of contact UP and NS

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[56] Investing.com, *Union Pacific at Barclays Conference: Strategic Merger Insights* at 9 (Feb. 18, 2026), https://www.investing.com/news/transcripts/union-pacific-at-barclays-conference-strategic-merger-insights-93CH-4511658.

[57] Apr. 30, 2026, Am. App. Vol. 1 p. 220, Vena VS ¶ 23.

promise is the same coordination that interline partners already provide, and it is not something that only a merger can deliver.

50. What customers tell me they value most is not the number of railroads behind a waybill. Instead, they value consistent service, competitive rates, and the ability to choose among carriers. A merger that eliminates that choice in the name of convenience gives customers less of what they actually want.

B. UP's Conduct in Prior Merger and Board Proceedings Shows Its Commitments Cannot Be Trusted.

51. UP asks the Board to approve this merger on the strength of its commitments: to keep gateways open, to quote commercially reasonable interline rates, and to preserve two-carrier access for a handful of customers. The Board should not take those promises at face value. In my experience, and as the Board's own decisions reflect, UP has treated prior merger conditions as obstacles to work around, not obligations to honor. UP's approach ultimately harms competition and customers.

52. UP has spent 30 years obstructing the UP/SP merger conditions (which UP voluntarily agreed to and which were not mandated by the Board). In the UP/SP merger, BNSF was positioned, through a series of trackage rights, as the replacement for structural competition that was eliminated by the merger of SP into UP. Those rights were granted by the Board for the benefit of shippers and the public as the price of approving the UP/SP merger, and those conditions were supposed to let BNSF stand in for the competition that the merger removed. In practice, though, BNSF has had to go back to the Board again and again to get what was promised: customer

access, shipper elections for BNSF service, infrastructure access, and equal treatment in dispatching and service. UP has used every lever in its control to frustrate its promises, including hindering BNSF from accessing customers or vice versa, preventing BNSF from accessing jointly funded infrastructure, providing unequal dispatching and service treatment, and most recently, seeking to reset the access rate at levels that render that alternative service non-competitive. The Board has had to resolve more than a dozen disputes relating to these issues and has several currently pending.

53. The Board has recognized that it has "examined a number of disputes related to the conditions memorialized in the" agreement "since the merger oversight period ended, with a notable uptick in enforcement requests in recent years."[58] Each of those fights takes time, ranging from several years to even more than a decade in one instance. As those disputes go on, the customers that the conditions were meant to protect wait, often longer than the lifecycle of the commercial opportunity that spurred the access request. Moreover, the disputes that actually reached the Board only tell a small part of the story—we have numerous examples of UP's frequent obstruction where the time, effort, uncertainty, and expense required to overcome it have made enforcement impractical, especially for small shippers. In my experience, customers are hesitant to press their access rights, or even ask for them, because they fear UP will respond with higher rates or worse service at the facilities where UP is

[58] *BNSF Ry. Co.—Pet. for Rev.—UP/SP Merger Conditions,* FD 32760 (Sub-No. 52), slip op. at 4 (STB served May 26, 2026).

their only option. BNSF's enforcement filings describe these issues in detail. I raise them here because they are the most direct evidence of how UP would treat any conditions the Board imposes in this proceeding.

54. A promise made to win approval of a merger is only as good as the person making it. I have no confidence that UP will honor its gateway and pricing commitments that it makes in this proceeding. A merger of this scale would only multiply the issues resulting from UP's failure to honor its obligations, and rail shippers who depend on the conditions will be the ones who bear the cost.

C. Integration Problems are a Massive Risk.

55. Customers depend on reliable, consistent, and safe freight rail service. Recent rail mergers much smaller than the proposed deal have resulted in serious, prolonged, and costly service disruptions that harm shippers, the broader economy, and public confidence in the freight rail system. All signs suggest that UP and NS's proposed merger will be no different. In fact, given the scale and complexity of the proposed transaction, there is a risk that its implications are worse than any other prior merger.

56. Not a single rail merger has been implemented without integration problems, and history shows that such integration problems plague the entire rail industry—with meaningful downstream consequences for the shippers and end-consumers who rely on it. The rail network is interconnected. A combined UP/NS would have outsized influence over key gateways, including Chicago, and its trains would share terminals and interchanges with every other Class I railroad, many shortlines, and the trucking and port partners that depend on rail. When the merged

network seizes up, the backlog will not stop at UP/NS's borders. It will spread to BNSF, CSX, CPKC, and CN; the shortlines; the ports; the farmers, manufacturers, chemical producers, and retailers who need their goods delivered; and American consumers.

57. I saw this first-hand after the UP/SP merger in 1996, when I was working in sales for BNSF in Houston. After UP merged with SP, the subsequent integration produced gridlock across the western rail network, with trains backed up for miles across the country (I recall the same tank car sitting in UP's terminal for weeks), shipments delayed for weeks, and shippers left with no viable alternatives as the combined railroad struggled to operate a system it could not effectively manage. The Board declared an emergency by late 1997, imposed an emergency service order, and initiated special oversight proceedings. Traffic was restored by mid-1998.

58. The UP/SP merger caused integration issues that impacted every Class I railroad at the time. BNSF had a difficult time getting customers to convert to using rail because customers were so upset about the UP/SP-caused operational failures that they did not want to talk to any railroad, including BNSF. The issues also impacted American consumers and the economy, including by costing shippers an estimated $100 million every month.[59]

59. The UP/SP merger was not a unique experience. The Board recognized that the division of Conrail between CSX and NS "resulted in severe service problems

[59] Ex. 4, Bloomberg, *Union Pacific's Slow-Motion Train Wreck: Merger Mayhem* (Aug. 5, 1998); UPI, *Texas Official: Union Pacific in Crisis* (Oct. 27, 1997), https://www.upi.com/Archives/1997/10/27/Texas-official-Union-Pacific-in-crisis/5782877928400/;

that plagued applicants and their customers for a full year or more,"[60] and service disruptions also followed the UP/CNW transaction.

60. More recently, the CP/KCS merger similarly resulted in service disruptions and traffic congestion during the subsequent integration efforts. In particular, the cutover from KCS's information technology system to CP's resulted in unforeseen data issues that caused congestion, delays, and missed switches in Louisiana, Texas, and Mississippi. Notably, the CP/KCS merger was far smaller and less complex than what UP and NS are proposing here, and it still faced significant integration challenges that impacted the rail industry and its customers.

61. Ultimately, trust is integral to our industry: customers trust us to reliably and predictably deliver their shipments on time. Operational and integration failures, like those in the UP/SP and CP/KCS mergers and those that will likely result from a UP/NS merger, have the power to destroy the trust that BNSF has spent decades building with customers and the recent growth in the rail industry. Yet, faced with the one-sided historical record, UP and NS have failed to provide adequate information about their integration plans that could come close to alleviating the precedent-backed and well-placed concerns that such a large-scale combination might cause significant disruptions.

[60] *Major Rail Consol. Procedures*, 5 S.T.B. 539, 558 (2001).

D. Customers Want Lower Prices—The Proposed Merger Will Increase UP/NS's Market Power & Increase Prices.

62. Customers want lower prices, and this merger would push rates in the opposite direction. That risk starts with where UP and NS stand today.

63. There is no dispute that UP and NS are two financially healthy companies. As part of the Board's annual revenue adequacy determinations, the Board found that both UP and NS were revenue adequate for 2025 (meaning that they achieved a rate of return on net investment greater than or equal to the current cost of capital for the rail industry).[61] In particular, UP and NS achieved ROIs of 17.09% and 10.29%, respectively, with UP leading the industry in 2025 on return on investment. UP has already led Class I railroads in revenue per unit for years, and its revenue-per-unit growth has outpaced inflation over the long term. For instance, UP's revenue per unit was about 27% higher than the Class I average in 2024, in large part due to the leverage UP created during the UP/SP merger.[62] Even before any merger takes place, UP's pricing levels remain significantly above industry averages.

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[61] Railroad Revenue Adequacy—2025 Determination, STB Docket. No. EP 552-30 (Oct. 7, 2026).

[62] Sept. 4, 2026, Am. App. Vol. 2 p. 18, Bailey VS ¶ 31 Ex. 3. Bailey's figure discloses that UP's revenue per carload is ~$2,896 and the Class I average is ~ $2,278, meaning that UP's revenue per carload is about 27% higher than the Class I average. If UP is excluded from calculating the Class I average revenue per carload, then the Class I average decreases to $2,087. In that event, UP's revenue per carload is almost 39% higher than the Class I average (excluding UP).

64. This merger would add unprecedented scale to that pricing position. The UP/NS merger is valued at $85 billion.[63] The combined railroad would be substantially larger than any other U.S. freight railroad, concentrating more traffic, revenue, and network reach within a single system than any modern rail merger. If the merger is approved, UP would control nearly 50% of all rail shipments that originate in the United States on Class I railroads, and it would leave more than 10,000 customer facilities that are currently closed to either UP or NS.[64]

65. The premium that UP paid will be recovered through volume or price. There is no reason to accept that it will be recovered through volume, particularly when judged against UP's long-term emphasis on price over volume. All signs indicate that it will be recovered through price.

66. UP and NS try to justify the massive premium UP is paying for the right to acquire NS with a promise that they will increase their annual volumes (compared to their 2023 base year) by 13% and that this growth will be fully realized by the third year after the merger.[65] That is not likely. Past mergers teach that UP and NS's claims of growth have rarely been realized. Given the recent growth in intermodal volumes in the rail industry over the past year, it is not clear just how much of

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[63] Union Pacific, *Union Pacific and Norfolk Southern to Create America's First Transcontinental Railroad* (July 29, 2025), https://www.up.com/press-releases/growth/norfolk-southern-transcontinental-nr-250729.

[64] BNSF Railway, *Not All Market Share Metrics Tell the Same Story*, https://www.bnsf.com/ship-with-bnsf/preserve-rail-competition/Merger-Market-Share-Facts.pdf; BNSF Railway, *Standing Up For Competition. Protecting Customer Choice.*, https://www.bnsf.com/ship-with-bnsf/preserve-rail-competition/BNSF-merger-conditions-filing-flyer.pdf.

[65] Sep. 4, 2026, Am. App. Vol. 2 p. 404, Hunt VS, § 2.3, ¶ 3.

UP/NS's proposed post-merger intermodal growth (which was built on a baseline of 2023 data) has already been achieved. Beyond the intermodal growth seen across the industry over the past year, both UP and NS have historically seen volumes decline. As of 2025, excluding coal, the combined UP/NS volume was up just 0.2% over the prior ten years—yet they suggest that, once they combine into one company, they will experience newfound volume growth in excess of 10% after just three years.[66] I do not find that credible, nor do the shippers with whom I have spoken.

67. To support the promised growth, UP and NS point to truck-to-rail conversions in the "watershed" area on each side of the Mississippi River.[67] But the problem in watershed markets is not ownership; it is density. Rail services tend to be the most successful when they can haul large amounts of freight over long distances. Watershed hauls are short enough that it is difficult for rail to find enough density in these lanes to compete with truck, as many of these markets lack the volume to support a dedicated train. A merger will not change that density-based reality.

68. A merger is unlikely to cause any meaningful growth in watershed diversions. The ability to convert freight in the watershed region to rail has existed after many mergers, including the UP/SP, BN/SF, and CP/KCS mergers. And it continues to exist today: Most of UP/NS's projected carload diversions are expected

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[66] Ex. 5, Bill Stephens, *RailTrends Opens With Sharp Debate Over UP-NS Merger*, TrainsPro at 3 (Nov. 21, 2025), https://www.trains.com/pro/freight/railtrends-opens-with-sharp-debate-over-up-ns-merger/.

[67] Sep. 4, 2026, Am. App. Vol. 2 p. 433, Hunt VS, § 4.2.3 (noting that "most" of UP/NS's truck-to-rail carload diversions "are projected to occur in cross-watershed and inter-watershed lanes").

to occur in inter- or cross-watershed lanes.[68] Those truck-to-carload diversions involve traffic that NS could provide single-line service to *today* if it wanted to. And in the intermodal space, UP/NS *could*, but do not, provide intermodal service on routes such as Memphis and Chicago. That begs the question: If the projected diversions in the watershed market are actually feasible, why is UP not pursuing that growth and converting that traffic from truck to rail today? They are not because density and length-of-haul prevent railroads from converting significant volumes in the watershed region to rail. The UP/NS merger is no different.

69. UP and NS's promised conversion numbers also conflict with experience: prior mergers have not led to significant growth among carload commodities, and after the last major round of rail mergers, rail actually ***lost*** 3% market share to truck. And, as my colleague, Tom Williams, explains, UP and NS's diversion projections dwarf those that CP and KCS made—and have failed to meet despite their best efforts.

70. Instead of growing volumes from truck-to-rail conversions, UP and NS are likely to exert their market power to capture and raise rates on captive shippers. Based on my experience with UP, I can attest that it already bundles rail service for its captive shippers. Take, as one example, UP's significant presence on the Gulf Coast. Many shippers located in that region are captive to UP, given their lack of direct access to other railroads. I am aware that UP leverages its regional dominance to bundle rail service rates for these captive customers, even where those same

[68] Sep. 4, 2026, Am. App. Vol. 2 p. 433, Hunt VS § 4.2.3.

customers have other competitive facilities that could be served by non-UP railroads and receive competitive rates. Based on my conversations with shippers, they tell me that UP coerces captive shippers into entering contracts that cover their competitive routes or suffer much higher rates at their solely served locations. This effectively limits the competitive nature of the routes served by other carriers.

71. The merger would extend that bundling, which shippers have long complained about, to the East. Post-merger, UP would have control of NS's eastern network. Shippers that are captive to NS today at one facility, but have competitive options at others, would become exposed to UP's bundling practices across a much larger combined network. Given that UP traditionally has the highest rates in the industry, UP would be able to use that larger footprint and the leverage it receives from the merger to raise rates further and drive its revenue per unit higher.

72. The merger would remove the competitive constraints that limit such practices today, which will ultimately harm rail customers, the rail industry, and the American public. And given the structural changes in the trucking industry and fuel prices, most shippers (intermodal and carload alike) do not currently have the relief valve of shifting their freight to truck to avoid these harms.

73. Instead, many of our customers depend on a single railroad for at least some of their facilities. For customers who are solely served by UP or NS, they cannot afford to put that relationship at risk by speaking out against the merger and risking rate increases. Shipper silence is not, as UP and NS claim, support for the merger.[69]

[69] Kenny Rocker, *Silence is Not Opposition*, Union Pacific (Oct. 6, 2026), https://www.up-nstranscontinental.com/letters/rocker-customer-support/ ("A customer who has stayed quiet, or

The fear of retaliation is real. At the Southwest Association of Rail Shippers Annual Conference in March 2026, UP's CEO, Jim Vena, explicitly threatened that he would raise rates by "3 or 4 extra percent" for shippers who did not support the merger to "teach [them] a lesson."[70] First of all, no customer should ever have to weigh their honest opinion against their freight; our customers have my commitment that speaking honestly to a regulator will never jeopardize their relationship with BNSF. I commend the STB for its recent decision rejecting UP's attempts to cloak Mr. Vena's comments in confidentiality and for undertaking the investigative actions outlined there.[71] Following the STB's decision, however, I met with members of the Alliance for Chemical Distribution when I spoke at their November 11th annual meeting, and it is clear from those conversations that the video has had a profound chilling effect on the willingness of individual customers to participate in the STB's review process. Rail customers are incredibly (and understandably) concerned about the consequences they will face from UP for voicing their concerns about the merger, even more so since they were able to view the video for themselves. It is not clear how that real damage to this important regulatory process can be undone. Mr. Vena's statements also underscore one of my primary concerns with this merger: If UP is willing to talk about raising rates to punish customers who oppose its merger at the

who has taken a neutral position publicly, is not a customer who opposes this transaction – even if they belong to an association who has.").

70 Stop the Rail Merger, *Here's the Video Union Pacific Didn't Want You to See* (Nov. 6, 2026), https://www.youtube.com/watch?v=7B-yAMzTz3Q&t=3143s at 52:23.

71 Decision No. 45 (STB served Nov. 4, 2026).

very moment that UP is asking the Board for approval, it is hard to see what would constrain a combined UP/NS once that approval is granted and the oversight period ends.

74. If UP and NS are allowed to merge, I am concerned that UP/NS will exercise its unprecedented market power to charge higher rates to pay for its $85 billion merger, to the detriment of customers. That strategy is confirmed by the fact that UP and NS's promised volume increases ignore reality and are unlikely to materialize. UP has consistently pursued revenue growth over volume growth, and the Application confirms that same mentality will carry over to a merged UP/NS: I have seen no promises from UP or NS that they will lower, or even hold constant, shipper rates. To the contrary: While Mr. Vena touts that "[s]ingle-line railroad costs less," he is "not here telling people [to] expect a 5% rate cut because [his] job is to represent [his] company," UP.[72]

III. THE MERGER IS NOT REQUIRED TO ACHIEVE THE BENEFITS CLAIMED BY UP/NS.

75. UP and NS claim the merger will deliver $3.5 billion in shipper savings. Based on the obvious flaws in that calculation and my three decades of experience in the business, that is not credible. Just as important, a risky merger of this magnitude is not necessary to achieve the kind of benefits UP and NS claim to seek.

76. The $3.5 billion in shipper savings is a flawed math exercise by a consultant, extrapolating the money that shippers will purportedly save by simply

[72] Ex. 6, Stock Analysis, *Union Pacific Corp.: Morgan Stanley's 14th Annual Laguna Conference* (Sept. 16, 2026).

switching from truck to rail. Since truck rates tend to be higher than rail rates, these savings are available to shippers today; the merger does not change that. Further, the fact that the math exercise uses 2023 as a base year, and as I understand it, has material conversions even when rail rates are higher than truck rates and in low-density lanes, indicates UP and NS's projected shipper savings are unrealistic. Those are not results an operator with real-world experience would expect.

77. Meanwhile, UP and NS have been careful not to promise to lower rates for any customers. To the contrary: UP confirmed that it "pric[es] to the value of our service product" and promised that "as the service product supports it, we're going to keep pricing to what the market can support."[73] The loss of an independent Class I railroad—and the creation of an industry goliath—would reduce competition that helps discipline rates.

A. The Merger Is Unnecessary to Achieve Service Improvements or Transcontinental Service.

78. NS's CEO, Mark George, claims the merger is necessary to compete with truck because "[o]nly full integration can deliver the scale, coordination, and customer responsiveness necessary to compete with trucking and modern logistics providers. Partnerships and alliances have been used for decades. They have served—and continue to serve—as a vital option. But they are not enough because rail continues to lose freight market share to the highway."[74]

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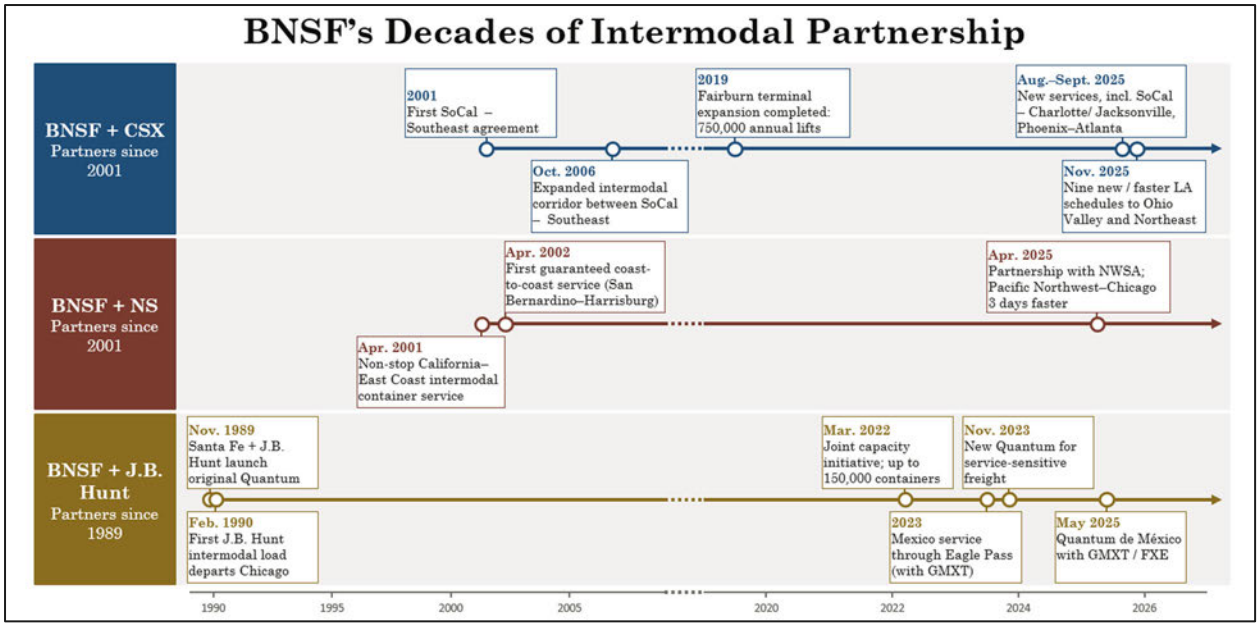
[73] Ex. 1, Union Pacific Corp. Q3 2026 Earnings Call Transcript at 5, 13 (Oct. 22, 2026).

[74] Apr. 30, 2026, Am. App. Vol. 1 p. 265, George VS ¶ 57.

79. I do not agree with him. Consolidating this healthy rail industry structure by creating a single entity with nearly 50% market share of the domestic Class I freight rail market and 53% of Class I merchandise gross ton-miles would not strengthen the industry. It would fundamentally undermine the competitive dynamics that have driven the industry's success. By reducing competitive pressure on the combined UP/NS, the proposed merger would diminish its incentive to invest in service quality, technology, and capacity, and it would reduce the industry's overall capacity for innovation. The proposed merger would plainly move the freight railroad industry in the wrong direction, and rail customers would bear the brunt of it.

80. UP and NS contend that a merger is necessary to achieve the service improvements and competitive gains they identify in their application. UP and NS also describe their merger as creating "America's first transcontinental railroad," as if coast-to-coast rail service will exist only if the Board approves this transaction. These statements are simply not true. The freight railroad industry has a strong and growing track record of achieving service improvements, competitive gains, and seamless transcontinental service through interline partnerships, voluntary collaboration, and targeted capital investment, without the need for a merger.

81. BNSF's experience demonstrates what can be accomplished through partnership and investment. BNSF has invested in and collaborated with other Class I carriers and other participants to improve service for interline customers. History has proven that partnerships work: We have decades-long, durable partnerships with both the Eastern carriers and J.B. Hunt:



82. These long-standing relationships stand in contrast to Mr. George's argument that partnership benefits are "limited" because "management teams change" and incentives diverge,[75] and Mr. Vena's claim that partnerships are "narrow and cannot be scaled."[76] BNSF's partnerships with CSX and NS have lasted for decades, through multiple management changes at each railroad, and have grown in scope over time. Interline partnerships also offer a benefit not often available from a single company—the ability to innovate as markets change, as our 2025 redesign with NS and the Northwest Seaport Alliance and our expansion of Quantum to Mexico illustrate.

83. BNSF's partnership with CSX is one example of how two railroads can work together for decades to deliver seamless, competitive service without a merger.

[75] Apr. 30, 2026, Am. App. Vol. 1 p. 245-46, George VS ¶ 7.

[76] Apr. 30, 2026, Am. App. Vol. 1 p. 231-32, Vena VS ¶ 49.

Our relationship with CSX dates back to 2001, when we entered into an agreement with CSX to launch a premium intermodal service between Los Angeles and San Bernardino to Atlanta, cutting 12 hours off the then-existing transit time. We launched this route with CSX because we were operating at a disadvantage; UP physically had a better route to Atlanta with its partners. By partnering with CSX, we were able to offer a more competitive product and provide customers with optionality and flexibility. In 2006, we entered into a {{ [redacted] }} agreement with CSX that replaced and expanded our prior agreement in order to create a high-volume intermodal corridor between California and the Southeast. Our agreement with CSX granted us haulage rights over CSX between CSX's interchange in Birmingham and CSX's busiest intermodal terminal in the Southeast, the Fairburn intermodal terminal southwest of Atlanta. That corridor expanded both BNSF's and CSX's capacity, with BNSF expanding capacity on its rail lines connecting Avard, Oklahoma; Memphis, Tennessee; and Birmingham, Alabama. Our agreement with CSX has allowed BNSF to be the only railroad that offers direct service from the West Coast to Atlanta via Fairburn. Altogether, we have invested almost {{ [redacted] }} into Fairburn, even though that facility is not on BNSF's western network. As the former leader of domestic intermodal at BNSF, I take personal pride in how we were able to expand our Fairburn partnership with CSX to offer value-driven services for customers.

84. We repeated that approach with CSX in Northwest Ohio in 2017 and 2018. And last year, we expanded our Southeast service with new direct domestic

intermodal service from Southern California to Charlotte, North Carolina, and Jacksonville, Florida. We also launched a new Phoenix–Atlanta service aimed at converting truck freight to rail. And in November 2025, BNSF began offering five-day-a-week service from Los Angeles to multiple CSX destinations, including Louisville.

85. Next, Mr. George argues that interline partnerships cannot "eliminate the friction and associated transit delays that a single-line service offers to customers."[77] That is simply not true. Continuing our long relationship, we recently partnered with CSX to offer one of the fastest transcontinental routes in the industry. These partnership discussions were occurring before the merger announcement, and we were ultimately able to offer a route between Los Angeles and South Kearny, New Jersey with CSX that runs on a 100-hour, 7-day-a-week schedule. Not only is this route competitive with single-driver truck options, but even with interchanges, it is highly competitive with the 95-hour route that UP and NS advertise will be available post-merger between the City of Industry (Los Angeles) and Croxton, New Jersey.

86. In short, for over 25 years, BNSF and CSX have continued to invest in and expand our partnership to offer viable alternatives to truck shipments and improve speed, flexibility, service, and optionality for customers.

[77] Apr. 30, 2026, Am. App. Vol. 1 p. 268, George VS ¶ 63.

87. CSX is not an outlier. BNSF also has long-standing partnerships with NS dating back to 2001.[78] Our transcontinental service with NS between Los Angeles and New York is the fastest regularly scheduled train in the industry; it is competitive with single-driver truck, and it is among our fastest-growing lanes. Our Q4 2025 data showed that BNSF-NS service from Los Angeles to Croxton takes an average of 92 hours, which is 3 hours faster than the 95 hours that UP/NS claim they will achieve with their single-line service post-merger (even with interchanges).

88. In 2025, we collaborated with NS and Northwest Seaport Alliance ("NWSA") to redesign and develop a product for inland point intermodal traffic from the Pacific Northwest to and connecting through Chicago. Through our redesigned plan, we were able to develop a product that was designed to cut up to *three days* off prior routes. This collaboration made the routes more efficient, and we were able to accomplish it with a direct focus on improving service and reliability for customers. Yet, if UP and NS are permitted to merge, BNSF's partnerships with NS will effectively go away and reduce optionality for customers. Mr. George says that "[a]lliances will continue to be an important part of this industry," including between UP and BNSF,[79] but the merged UP/NS will have every incentive to keep traffic on its own lines and take other steps to extend its haul to the detriment of other carriers. As Laredo shows, a merged carrier's incentives override such assurances. Over time,

[78] Ex. 7, BNSF Railway, *BNSF, NS, NWSA Redesign Faster Service From PNW to Chicago and Beyond* (Apr. 2, 2025).

[79] Apr. 30, 2026, Am. App. Vol. 1 p. 267, George VS ¶ 60.

those UP choices will make BNSF's partnership with NS disappear, leaving fewer choices for shippers.

B. Customers Value Reliability and Consistency Above Speed.

89. UP and NS also promise that the merger will eliminate roughly one million interchange hand-offs and accelerate freight movement across the United States. But UP and NS conflate speed with reliability and consistency. Shippers across every commodity highly value reliability and consistency. In my experience, shippers would not sacrifice reliability and consistency to receive a faster product (especially one that is plagued with service issues).

90. While UP and NS promise the elimination of interchanges will provide a faster product, how long a car waits at an interchange depends less on who owns the railroad than on how the interchange is run and whether there is sufficient density for a train to depart to the car's final destination. Data from BNSF's twelve high-volume interchange gateways in the fourth quarter of 2025 show that gateways with fewer interchange cars do not necessarily have shorter dwell times. Rather, interchange dwell time depends on train frequency, terminal capacity, car volume, and operational coordination—all of which can be improved through investment and partnership without a change of ownership. When carriers commit resources to improving gateway operations and coordinating their schedules and processes effectively, the results can be comparable to what single-line service can achieve. These are efficiencies that UP and NS could pursue today, without consolidating their networks under a single owner.

91. BNSF's data demonstrates that interchanges can be performed quickly. UP/NS's truck-to-rail diversion models assume that a railcar spends 22 hours at each interchange, based on the average system terminal dwell time.[80] In my experience, that assumption overestimates the amount of time intermodal cars spend at each interchange, given that BNSF's median interchange time for intermodal shipments is two hours. While my colleague, Mr. Morehouse, discusses BNSF's interchange times in more detail, our two-hour median interchange time for intermodal shipments is on par with single-line service, particularly since single-line service does not run with zero dwell and still experiences humps, crew changes, intermediate safety inspections, classifications, and other work events. Our current ability to run routes with comparable times to UP/NS's proposed post-merger routes undermines UP/NS's claimed benefit of eliminating interline service.

IV. CONCLUSION

92. The proposed merger between Union Pacific and Norfolk Southern is not in the public interest; it does not preserve (let alone enhance) competition, and the benefits can be achieved without a merger. I respectfully urge this Board to deny the proposed merger.

[80] Sep. 4, 2026, Am. App. Vol. 2 p. 416, 527, Hunt VS.

VERIFICATION

I, Katie Farmer, declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief. Further, I certify that I am qualified and authorized to make this statement.

Executed this 18th day of November 2026.

/s/ Katie Farmer
Katie Farmer
President & Chief Executive Officer
BNSF Railway Company

EXHIBIT 1

Corrected Transcript

22-Oct-2026

Union Pacific Corp. (UNP)

Q3 2026 Earnings Call

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MANAGEMENT DISCUSSION SECTION

Operator: Greetings and welcome to Union Pacific's Third Quarter 2026 Earnings Call. At this time, all participants are in listen-only mode. A brief question-and-answer session will follow the formal presentation. [Operator Instructions] As a reminder, this conference is being recorded, and the slides for today's presentation are available on Union Pacific's website.

It is now my pleasure to introduce your host, Mr. Jim Vena, Chief Executive Officer for Union Pacific. Thank you, Mr. Vena. You may begin.

V. James Vena

Chief Executive Officer & Director, Union Pacific Corp.

Thanks, Rob. Sorry, I'm rather fast this morning. I'm ready to go. I overstepped you, so hopefully I don't do that to everybody today.

Operator: No.

V. James Vena

Chief Executive Officer & Director, Union Pacific Corp.

I hope I am. We're ready to go here. So why don't we take a step back and think about where we are as a company and what we're doing?

So this morning, my wife, for whatever reason, got me up a little early, okay? So I had a little more time to look at the railroad real close. And the first thing I look at is, what's happening to the railroad weather-wise. And bottom line is, this is my favorite time of the year to railroad.

And Eric will tell you the same thing. You know, engineering programs are in a different place. The railroad is well setup. You don't have the extremes. Too much of an extreme of weather. And it is a beautiful morning here in Omaha. Absolutely gorgeous. I'll tell you, it's a great place to live and a wonderful spot. But so the railroad is good.

Now, the range of temperature we have is from the low-30s to the high-80s. But that's who we are. And we have thousands of employees out there right now, okay? Yesterday, we had 2.31 billion GTMs of product that we moved in this railroad. And all the people out there. And I got to congratulate them on the quarter that we had. So very excited to share with all of you, who we are, what we're doing?

And one thing we're not changing is the key pillars that we have. Safety for us is the foundation. And Eric will take you through some of the detail. But where we are this year on an injury rate improvement from last year, where we are in the derailment rate? Significant improvement from last year. That continues. All the work we've done is very exciting as a foundation of everything that we do.

And listen, safety for us is more than just a number. It's about people going home exactly the same way as they showed up when they came to work. And it's the movement of the goods that we have for America. We are moving products across the western states, and pretty soon, across the entire country. That just helps the economy and helps businesses move ahead.

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So I love where we are, safety. And I know Eric's got some more detail on that as we move ahead. And service, absolutely, I love where our service is, we're delivering what we sold the customer and what we agreed to. And operational excellence, I see numbers in detail that I had a chance this morning to spend probably a half an hour. Usually, it's five minutes on that show me that the number of cars that missed their plan, that we call 32-hour cars is like 15% lower with business up, the number of locomotives we have out there running and operating. Don't match the amount of business increase, meaning we have way less locomotives operating.

So much more efficient with them. The way the cars are turning, the car velocity is exactly the same as it was last year at this time, with increase in business to show the resiliency of our buffer and how we handle traffic. So I guess, if I don't stop there, I might as well just tell everybody to keep quiet and we'll just go to question and answers. But let me real quick tell you who's here with me.

Our Chief Financial Officer, of course, Jennifer's with me all – with me every quarter. Love having her here. She's next to me. Kenny Rocker, our Executive VP of Marketing and Sales, always in the right spot, right there to my right. And across the table, Eric Gehringer, our Executive Vice President of Operations. And I can't be prouder of what the team has done.

If we can turn to slide 4 and quickly review. So this morning, Union Pacific reported record financial results as net income totaled $2.1 billion and our adjusted earnings per share grew 15% to $3.53. Union Pacific's third quarter results demonstrate our ability to safely deliver the service we sold our customers, while efficiently handling 6% volume growth. Higher fuel prices were a big cost driver. But when we take out the impact of fuel price and merger costs, our core operating ratio improved 110 basis points from last year.

Now I'll let the team walk you through the results in more detail, and then I'll come back to talk about the Q&A, and maybe a quick wrap-up before we get into the – before we finish the call.

And Jennifer, all yours with some of the details on the financials, please.

Jennifer L. Hamann

Chief Financial Officer & Executive Vice President, Union Pacific Corp.

All right. Thank you, Jim, and good morning, everyone. I'll begin with our third quarter income statement on slide 6, where operating revenue of $7.2 billion increased 15% versus last year. Digging into the components of our growth further, freight revenue totaled $6.8 billion, up 15% on 6% volume growth. In addition, higher year-over-year fuel prices and the related fuel surcharge added 900 basis points to freight revenue.

Although our quarterly pricing gains continue to exceed our inflation dollars, that contribution from price was masked by business mix as nearly 75% of our quarterly volume growth was from domestic and international intermodal traffic. Wrapping up the top line, other revenue increased 21% to $384 million as higher intermodal volume contributed to increases in both accessorial and subsidiary revenue.

Turning to expense, our appendix slides will provide more detail as our total operating expense increased 15% to $4.3 billion, primarily from the higher diesel fuel prices. Compensation and benefits expense increased 4%, as cost per employee was up 5%, driven by higher wages, incentive compensation and training costs. Offsetting some of that cost pressure was a 1% decrease in head count, against that 6% volume growth, enabling us to generate our ninth consecutive quarter of record workforce productivity.

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Fuel expense grew 69% on a 64% increase in average fuel price and 4% higher gross ton miles. Year-over-year, our price per gallon increased from $2.56 to $4.21, and added 140 basis points to our operating ratio. Purchased services and material expense increased 9% as a result of inflation. Intermodal-related costs for our Loup subsidiary and the railroad, as well as costs to add surge locomotives to the active fleet. These increases were partially offset by lower year-over-year merger costs. Equipment and other rents declined 3% versus 2025, as we more than offset the impact of volume growth with lower car hire and operating lease expense.

Putting it all together, we had a record quarter with reported earnings per share of $3.49. Adjusted for merger costs, earnings per share totaled $3.53, and our operating ratio was 58.8%.

Turning to cash returns in the balance sheet on slide 7, our record financial results translated into 18% growth in cash from operations to $8.3 billion. Free cash flow totaled $2.4 billion after we reinvested in our network and increased our third quarter dividend 3%, the 20th consecutive year providing our shareholders with an annual dividend raise. We finished the quarter holding $3.1 billion between cash and short-term investments, and with an adjusted debt-to-EBITDA ratio of 2.4 times. We will continue growing our cash reserves in anticipation of closing the Norfolk Southern merger in the second half of 2027.

Looking out to the remainder of 2026 on slide 8, we are affirming our outlook of reported EPS growth in the high-single digit range versus 2025's reported EPS of $11.98. And as a quick reminder, that $11.98 included $0.30 from a fourth quarter land sale. We are also affirming our ability to continue improving our core operating ratio in 2026 and leading the industry.

Our 2026 reported operating ratio remains challenged by higher fuel prices, as we are currently expecting prices to average around $4.85 per gallon in the fourth quarter. We're also updating our capital spend to $3.5 billion for 2026, as we invest for growth and pull ahead some of the capital work planned for 2027. Overall, we're delivering strong financial results in 2026, as we consistently execute on the three key levers for our railroad success: volume, pricing and productivity.

I'll now turn it over to Kenny to provide an update on the markets.

Kenyatta G. Rocker

Executive Vice President-Marketing & Sales, Union Pacific Corp.

All right. Thank you, Jennifer, and good morning. We delivered a record revenue quarter with freight revenue increasing 15% to $6.8 billion. Excluding fuel surcharge, freight revenue grew 6% to a record $5.6 billion. That's a result of our team at Union Pacific winning in the marketplace, pricing to the value of our service product and executing for our customers every single day.

Moving to slide 10, let's talk about the key drivers for each of our business groups. Starting with our Bulk segment, revenue was up 10% compared to last year on flat volume. Grain and grain products was driven by strong export grain demand and continued growth in renewable fuels, ethanol and feedstocks. These gains were partially offset by lower wheat shipments resulting from a softer harvest. Coal and renewables volume declined 3%, as lower natural gas prices and elevated inventories weighed on demand.

Moving to Industrial. Revenue was up 14% on 6% higher volume. Our strong service product and business development efforts led to record industrial carloads and freight revenue, excluding fuel. We saw growth in all of our major commodity segments.

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Metals and minerals growth was driven by our construction project wins located in Louisiana and Texas. We also benefited from sustained strength in our domestic steel production. Energy and specialized markets growth was driven by business development wins across petroleum, non-metallic minerals, government and waste markets.

Petroleum products benefited from refinery utilization [ph] that remained (00:11:21) at near record level. Premium revenue for the quarter increased 21% on a 9% increase in volume and set a record for freight revenue and freight revenue, excluding fuel. Domestic intermodal delivered its fifth consecutive record quarter in both volume and revenue.

Our foundation of service, combined with strong business development and a deployment of buffer resources, enabled 13% volume growth. International intermodal volumes improved 8% versus last year, driven by strong West Coast import volumes and business wins.

In automotive, business wins offset continued market softness. We saw strength in auto parts driven by growth with our current OEMs, as well as over-the-road conversions with parts suppliers.

Looking ahead to slide 11. Grain and grain products is positioned for further growth driven by strong export grain demand and our ongoing business development efforts. We're also seeing a positive impact from new facilities, including Bunge and 5V, both in Dalhart, Texas.

Our industrial development pipeline in this market remained strong. In fact, I recently took part in the groundbreaking of a CHS's new crush facility in Evansville, Wisconsin, which we will serve. We also see continued upside from renewable fuels and feedstocks, supported by further policy certainty.

In coal, lower natural gas prices and elevated inventories will continue to be a challenge. Our pricing discipline and business wins are helping to offset some of the market driven declines.

Moving to Industrial. We are focused on winning new business and outperforming industrial production. In metals, we expect continued strength from our construction projects and domestic steel production.

In petrochemicals, we are excited to see the Golden Triangle Polymers plant in Texas, continue their commissioning and start up activities towards full operation. Concurrently, export demand for plastics is strong as customers respond to disruptions in global supply. Overall, we expect continued momentum supported by our strong service product and the investments we've made in the Gulf.

And wrapping up with Premium. Domestic intermodal is on track to deliver its third consecutive record volume year supported by over-the-road conversions and our service product. International intermodal has fully lapped last year's tariff volatility, and we expect volume to grow double-digits in the fourth quarter.

And for automotive, we expect business wins to continue to offset market weakness. While we delivered a record third quarter, our focus is to build upon that success. We remain committed to pricing to the value of our service product and capturing new opportunities across the network.

And with that, I'll turn it over to Eric.

Eric J. Gehringer

Executive Vice President-Operations, Union Pacific Corp.

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Thank you, Kenny, and good morning. The team operated at a consistently high level, safely supporting 6% volume growth, while providing strong service for our customers. By remaining agile and strategically deploying resources, we overcame weather-related and seasonal network challenges and improved network fluidity.

Importantly, we continue to be disciplined and committed to personal injury and derailment prevention efforts, as our employee safety and derailment rates both improved against our three-year rolling average.

Moving to slide 13. The majority of our key operating metrics improved in the quarter of 2026, even as carload volume increased 6%, reinforcing the importance of maintaining surge resources and highlighting the resiliency of our network. Freight car velocity increased 1% to 228 miles per day, driven by a 2% improvement in terminal dwell. This marks our fourth straight quarter of terminal dwell below 20 hours, demonstrating our ability to run an efficient network while handling higher demand.

We delivered the service we sold to our customers. Intermodal Service Performance Index finished at 92%, as intermodal volume grew 11%. We responded quickly to capitalize on the improving freight market by unstacking containers and utilizing our buffer of resources.

Manifest Service Performance Index finished at 93%, against best ever industrial carloads. While these results reflect solid execution, we continue to see opportunities to perform even better. We know what is possible, which is why our Service Performance Index is set to continually challenge the team by setting the threshold at our best monthly performance.

Moving to slide 14. Operating discipline and consistent execution of the fundamentals drove another quarter of record workforce productivity, record train length and record fuel consumption. Locomotive productivity of a 140 gross ton miles per horsepower day was even with last year's record third quarter. The active locomotive fleet increased 2% to handle 4% higher gross ton miles, demonstrating strong asset efficiency.

Additionally, we continue to benefit from our ongoing locomotive modernization investments and fuel conservation initiatives, as our fuel consumption rate decreased 2% and set a new quarterly record. Workforce productivity improved 5%, as our active train engine and yard workforce increased 1%, against 6% higher carloads. We remain diligent in our hiring approach, aligning resources with demand while delivering for our customers. And finally, we continue to safely increase train length, which improved 2% to nearly 10,000 ft.

This remarkable progress is supported by technology improvements and mainline capacity infrastructure investments that enhance network efficiency. These results are a testament of our unwavering focus on safety, service and operational excellence. The team is well-positioned to serve our customers and empowered to raise the bar in what's possible.

With that, I'll turn it back over to Jim.

V. James Vena

Chief Executive Officer & Director, Union Pacific Corp.

Thank you, Eric. Thanks, everybody. Great presentation on who we are and what we're doing. So listen, before I tidy this up and get to the questions, which is the part I'm looking forward to is the real smart questions we're going to get this morning. I'd like to talk about Jennifer or my favorite CFO and the person that's been by my side since I came back as CEO.

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I've known Jennifer and I met her first in 2019, and then when she took over as CFO in 2020. And she is grounded, tough, sweet – tough, delivers, listens and tough. So I find that to be a perfect mix. And she has delivered for this company for many years. And I have to thank her for extending her stay a year longer than when I came back to work. She was going to stay for a couple of years and then depart. And she's been with me for three years, and we'll finish off early next year. So I can't be more pleased that she's going to go enjoy herself and do things with her and [ph] Kippy (00:18:51) and enjoy life a little bit. I know she's going to miss me and she's going to miss this railroad. And who knows? You know, it's just October. So we'll leave it at that. But Jennifer, thank you very much for everything you've done.

Jennifer L. Hamann

Chief Financial Officer & Executive Vice President, Union Pacific Corp.

Thank you, Jim, for the very kind words.

V. James Vena

Chief Executive Officer & Director, Union Pacific Corp.

No, no, I speak truth. If you were awful, I would have just said thank you very much. Where you go? Go enjoy yourself and don't come, watch the door as it hits you in the back.

Jennifer L. Hamann

Chief Financial Officer & Executive Vice President, Union Pacific Corp.

I'd be gone by now is what I'm saying you know.

V. James Vena

Chief Executive Officer & Director, Union Pacific Corp.

So listen, Jennifer, in all seriousness, you've done a spectacular job for this company. Seeing all the things that it's been through, and you've been very helpful on the merger and everything else we've done, so congratulations to you.

But I wouldn't mind real quick, just, before I get to questions, summarize what you've heard and make sure that everybody's clear on and provide a quick update on the merger with Norfolk Southern.

Our third quarter results reflect the strength of our franchise and our ability to execute at a consistently high level. 6% volume growth and 110 basis points of core operating ratio improvement don't just happen. It's the result of a long-term execution of our strategy, and that is enabled record financials and reinforcing our position as industry leader.

Year-to-date in 2026, we delivered reported earnings per share growth of 9%, exactly in line with our outlook of reported high-single digit growth. We are focused on what's possible, delivered at the highest level and winning even more business.

As to the status of our merger with Norfolk Southern, the Surface Transportation Board published a procedural schedule. Based on the schedule, we should be reporting our first earnings as a merged company a year from now. We also have requested for the second time, ex parte communications. That's the lawyer talk.

Jim Vena talk is, we are more than willing to have open discussion with the STB for any information they need, or if anybody at the STB or others want us to take through all the detail in those 8,000 pages, because there is a lot

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of benefits for the country, for our customers, for our employees, and for the movement of goods seamlessly at a faster rate that's in that 8,000-page detail that we've given.

So we're hoping that they accept the ex parte and we're able to stop any of this that we're trying to hold back any information. This is the second time we've done that. And it's real important to think that we have always been open and willing to talk about. And we can hardly wait to see the November 18th openness from anybody that wants to put comments in about who we are and what we've been doing with the merger.

Now, we're very confident, the merger application and the information we provided are the most extensive and transparent merger record ever submitted, and it demonstrates through fact and analysis that the best way to enhance the US freight supply chain is through the UP-NS combination.

Our merger, as I said before, but I love to repeat myself on this, will deliver substantial, measurable benefits by strengthening the supply chain. It will lower transportation costs and provide faster, more seamless rail service options that enable our customers to compete and help keep goods affordable for American customers – consumers.

And you can see it every day, even with the latest announcements from some of our competitors, they know they have to up their game and be better to be able to compete against this railroad when we get the merger approved.

And with that, Rob, let's go to question and answers. Thank you very much.

QUESTION AND ANSWER SECTION

Operator: Thank you, Mr. Vena, and best wishes, Jennifer. Thank you. We'll now be conducting our question-and-answer session. [Operator Instructions] Thank you. And our first question is from the line of Chris Wetherbee with Wells Fargo. Please proceed with your question.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Good morning, Chris.

Chris Wetherbee
Analyst, Wells Fargo Securities LLC

Q

Good morning, Jim, and congrats, Jennifer. I don't want to imply we're getting old, but I think you and I have been talking for a very long time. So well deserved in your retirement. So wish you all the best.

I think, I wanted to start maybe big picture on the M&A side, Jim, just where you kind of left off, I guess. You know, how do you think about sort of the receptivity. I know in mid-November, we'll get some commentary from all the folks who want to sort of weigh in on the merger. And it'll probably be incremental to some of the stuff we've heard already from some of the other railroads. You obviously were very successful getting an agreement with CN. How do you think about potentially sort of staving off some of the other potential asks by further agreements? I don't know if there's any receptivity that you're sort of seeing out there from competitors or other folks in the industry. Want to get a sense of how you're thinking about sort of discussions that may be going on in the background with other folks in the industry?

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V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Yeah. Chris, listen, I appreciate the question, and I can't believe you and Jennifer think you might be old, okay? I don't know, I woke up this morning. I was ready to run over anybody that was in my way coming into the office. And I'm a lot older than all of you guys, but that's okay.

But let's get to the whole M&A. So I think sometimes we have to make sure that we understand what it is that we're doing. This is an end-to-end attachment between the two companies that give the extent of a possibility of how people want to move. This is not a big overlap. We knew we had to fix some of the areas, a very small piece, the St. Louis, Kansas City and with Canadian National.

Listen, we have a deal that should be announced, finalized completely right away with all the t's crossed and the i's dotted, and the Tracy Robinson and her team have done a spectacular job of protecting Canadian National. And we've done a good job of protecting Union Pacific, and that deal is just about done. So I love it. But given that, really, there isn't a lot of opportunity to say, what do we trade? Are we willing to trade benefits for the industry? Sure. But there is not a lot of competitive benefit that we can – that we need to fix within the merger. And what we're going to deliver.

And listen, I've seen what people have asked for the very first one without the detail. And hopefully, there's nobody has their kids on this. I hate to tell people there is no Santa Claus, okay? So it's not a freebie. That you get to go in front of Santa Claus and wish for something that's going to happen, on December 25, okay, in the morning. And you get it delivered down the chute, okay? The fireplace – most places don't have real fireplaces anymore. So, it's fake. So what they're putting in, if they – if their dream is off, it needs to be fact based on what the impact is.

And it's pretty hard for anybody, anybody in this industry other than being selfish for themselves or trying to get something for free. And this is going to be a long answer. Even some of the unions that are against us, that are part of the coalition. I would ask the unions that are in the coalition if they've asked their partners, the railroads to guarantee a job for life for every employee like we have, okay?

So the benefits of what we're doing is across the board for consumers, for the nation, for our employees. And I don't think we're going to have a lot that we have to move. The STB was pretty clear when they approved the Canadian Pacific and Kansas City merger. They handed out no concessions to other railroads because there was no big overlap and movement. The pattern is set, and that's why I'm looking forward to go through this process. Chris, sorry for the long answer. Hopefully, I answered it.

Chris Wetherbee
Analyst, Wells Fargo Securities LLC

Q

Always appreciate the perspective, and best wishes, Jennifer. Take care.

Jennifer L. Hamann
Chief Financial Officer & Executive Vice President, Union Pacific Corp.

A

Thanks, Chris.

Operator: Our next question is from the line of Jonathan Chappell with Evercore ISI. Please proceed with your question.

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V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Good morning, Jonathan.

Operator: Jonathan, perhaps your line is on mute. Okay. Mr. Vena, appears he may have lost his line. I'll move on. Our next question will be from Ken Hoexter with Bank of America.

Ken Hoexter
Analyst, BofA Securities, Inc.

Q

Hey, great. Good morning. Jen, congrats. It's definitely been a long time since we met back in 2002. So, thanks for all your help along the way. And best of luck in your next phase. You know, I guess, if I jump into – I guess looking forward, right, volumes are trending at double-digits quarter-to-date. So it looks like you've accelerated a bit, kind of a good job there, but maybe, Jen, dig into the outlook a bit for upper-single digit growth. You're raising your CapEx $200 million. You noted you used your surge resources. So, if that growth sustains, maybe thoughts on investments or capital going forward, ability to beat the targets and sustain, given your need to increase the investment and keep pace. And if you're using surge resources, do you have some left on the side, if you continue to get this strong growth?

Jennifer L. Hamann
Chief Financial Officer & Executive Vice President, Union Pacific Corp.

A

Yeah, Ken, thanks for the question and thanks for the well wishes. Yeah, we feel very confident that we have sufficient resources that we can deploy and continue to handle the growth seamlessly and continue to put up the great numbers, the record results that we have done so far. But we're wanting to make sure we maintain that surge buffer. And so that's what I was referencing in the comments around purchase services is we've put more locomotives into service to handle the growth, still hitting record locomotive productivity. But we want to maintain that buffer because if we get another leg up on the growth, we want to be ready for it.

Same with hiring. I think we've got, call it, 300-plus folks in training right now because we want to make sure we have those crew resources available. But we are getting to your point, great volume leverage. And that's what gives us confidence that we're going to be able to finish the year in a very strong manner, putting up high-single digit earnings per share growth. It's just been a great year. The thing that's been the variable that we weren't anticipating coming into the year is the high fuel prices. And certainly, that has an impact on our results, weighs on our margins.

But the team is doing a great job in working with that. When you think about our fuel conservation efforts and really the fact that rails are so much more fuel efficient than truck, that's actually enabling us to win even more business and bring it on to the railroad.

In terms of the capital, we look at capital over a multi-year period and some projects you can accelerate, some projects stall a little bit depending on permitting and all the variables that go into it. We had an opportunity, and I'll let Eric weigh in here to pull some things forward. And certainly, we had the cash resources to do it. And it just made sense to do that this year.

Eric J. Gehringer
Executive Vice President-Operations, Union Pacific Corp.

A

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Yeah. When you think about Ken, where we made those adjustments, Jennifer mentioned the locomotives. That's an important one. You know that we've been in multi-year contracts in our modernization overhaul of locomotives. And we saw some opportunity because of how well the railroad continues to operate to pull some of that forward.

And that's a down payment in the future growth that Kenny is bringing to the railroad. And then the others were some infrastructure related opportunities that, again, because the railroad is running so well, we saw the opportunity to pull some of those projects ahead. So – and I'm just going to reiterate Jennifer's point. When we said used, we didn't say used up. We utilized some of our buffer of resources of which we have many buffer resources still left across the board.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Yeah, I think you had 589 locomotives accessed this morning.

Eric J. Gehringer
Executive Vice President-Operations, Union Pacific Corp.
A

That is correct.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

289 stores sitting there wondering what the heck you're going to do with them. And the other one's ready to go, if we had bulk go up or AGRs or we had an issue. So Ken, I like where we are. It gets pretty exciting right now. Good question though, I love it.

Ken Hoexter
Analyst, BofA Securities, Inc.
Q

Appreciate it. Thank you.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Thank you.

Operator: The next question is from the line of Scott Group with Wolfe Research. Please proceed with your question.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Morning, Scott. How are you?

Scott H. Group
Analyst, Wolfe Research LLC
Q

Hey, thanks. Good morning. I echo those comments to Jennifer. Jim, do the comments from coaster change your view at all of deal approval? What do you need to do to get deal approval? And then just separately, Kenny, just the yield ex-fuel were flat and I know there's mix, but I think there's an expectation that with better volume, rising trucking rates, the rail pricing is going to accelerate. Is that a reasonable expectation? When do you think we start to see that? Thank you.

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V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Yeah. Listen, I think you were asking me about the one of the four STB members that put out the separate note after they accepted the application and moved it forward. Is that right? Is that what you were asking, Scott? Sorry.

Scott H. Group
Analyst, Wolfe Research LLC

Q

Correct. Yes.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Okay. Bottom line is, if you take a look at what's in the application, there is benefits across the board and far of how we enhance competition, how we enhance the product for our customers, how we're going to be able to make it less expensive. If we're faster, if we remove touch points, every customer that uses our railroad that used to have to hand it off to somebody else is going to have a reduction in supply chain costs.

It is like automatic, it's basic business. We see that every day. And we see that every day, even today when we go hand off to a short line or hand off to somebody else versus the mileage and what we charge to be able to handle it on our own railroad. So that's a given. So listen, I always take people's position and I read it and I said to myself, I wonder if he used AI to summarize the 8,000 pages and all the detail or what. But he's a smart guy. So he has the position and we're clear, and we'd love to have the ex parte discussion with the board to take them through what the benefits are. It's up to them if they want to have that or not. But we're clear on what our case is, Scott. It is a benefit for this country.

And I don't know how many times I have to say it, and I'm not trying to say it to make sure people hear me, other than to say it's fact. Canada has two railroads that go across the entire nation. There's a reason for that, and they're not split up, even though some of them don't like it. One of them doesn't like us to have the same thing here. And at the end of the day, it's a benefit. And we are able to provide a better product to our customers. And that's what it's all about. And that's why this is going to be approved. I'm 99.999 sure that it's going to be approved.

Kenny, do you want to take the second half? You ready to go?

Kenyatta G. Rocker
Executive Vice President-Marketing & Sales, Union Pacific Corp.

A

Yeah. So, first of all, I mean, we don't want to lose sight of the fact that we had a record revenue year ex-fuel for Union Pacific. And we've done that in not just one area and a couple places that you heard in my comments. You know, it's a dynamic market when we're going out there to price, every day, we're competing against barge. We're competing against sourcing options. We're competing against truck.

There's a lot of competition out there that we have to compete against. And Eric and the team have provided us an excellent service product. And that's what we stand on. And so we're going to price to what the market can support. We want our customers to win. We want to win too, but we want our customers to go out there and win with the excellent service product that we have. So as the service product supports it, we're going to keep pricing to what the market can support.

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V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Thank you very much, Scott.

Operator: Thank you. Our next question is from the line of Jason Seidl with TD Cowen. Please proceed with your question.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Good morning, Jason.

Jason H. Seidl
Analyst, TD Cowen

Q

Hey. Thank you. Hey, good morning, Jim, and, I'll jump on the train for saying congratulations to Jennifer and thanks for putting up with guys like me for the past almost 25 years. I wanted to talk a little bit, sort of, about now that we're in the merits phase and we're coming up along the comments period.

Jim, can you talk to maybe some of the ongoing discussions to get more people on the side of supporting the mergers, whether they be customers or some of the unions that may not be supporting right now? Is this something that's ongoing? And could we expect some more, sort of, letters of support, or is this something that we're just going to have to wait for the comments and we're going to look forward from there?

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Well, I think it's important that we wait for the comments and see what everybody puts forward. And let's talk about the Union piece, because you raised it. Bottom line is no one has given a guaranteed job for life for any employee, unionized employee in the railroad industry, ever. Every employee. And it's amazing. So, what are we supposed to give? What else is there to give? We're going to grow the business. So, there's more employees that work because we're going to have a much more efficient railroad.

So – and the rail unions that understand that benefit signed up real quick. And I don't need them to sign up, because for me, it's more important on our employees. And sometimes I wonder whether the Union at the highest level is worried about their employees or worried about the employees. They're our employees that are unionized or they're worried about their union. You know, the teamsters. Listen, trucking is real important to them. And it's truly amazing that we have them part of the against coalition with railroads that have not guaranteed jobs. And in fact, some of them have been cutting people left and right over the last few months. And they still think that's a better model than being.

So I don't know how you make a deal there. And the merits will show that we have a great plan for our employees. We care about our employees, and we want them to win. So that's where I'm at with it. So I don't see us making a deal with anybody. Now, if it gets reasonable, if people want to talk, I'm good. On the customer side, we have over 500 customers that have written letters of support across the spectrum of. And we don't have very many, if any, just a little number of people that have actually gone into the STB and said, we're against it.

We have a lot of customers that we've met that say we want to go through and understand through the process, and I'm good with that. That's a smart move for some of them. But we also just had, in the last two weeks,

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customers that are in the chemical industry that put a letter of support for us, and they're actually single origination with us in Texas because they see the benefit of that handoff of not happening when we closed the deal with Norfolk Southern.

So sorry for the long answer, but I think from the customer side, big support. From the union side, our employees understand it. We just finished a survey of our employees and the feedback is about as good as it's ever been because they understand what providing. Think about it. We hire an 18-year-old because that's who we like to hire to be one of our people on repairing locomotives on the track, operating locomotives, tech people, everything else. And we say to them, you're unionized. You've been with us for one day. You have a job for life. And the average pay at Union Pacific all in with benefits is $160,000. I'm not sure about anybody else, but the – unless it's a rich cats, that might be all on this call. Okay. There's a lot of benefit for that, for everybody that works for Union Pacific. I'm not ready to hurt that.

Kenny, you got your hand up before you go, you get. Kenny's excited. He wants to correct something I said or what, Kenny?

Kenyatta G. Rocker
Executive Vice President-Marketing & Sales, Union Pacific Corp.
A

Hey, look, we had about 30 of our customers that are excited about the merger. They're going to be helping us with the integration process and the feedback is that they're looking forward to this happening.

Jennifer L. Hamann
Chief Financial Officer & Executive Vice President, Union Pacific Corp.
A

Yeah, I forgot that, Kenny. That's why I got Kenny and Eric and okay, Jennifer with me. I go on and I forget, so I'll try to shorten the answers because otherwise we're going to be here till lunchtime, okay? The way we go.

Jason H. Seidl
Analyst, TD Cowen
Q

I appreciate it, Jen. Thank you.

Operator: The next question is from the line of Walter Spracklin with RBC Capital Markets. Please proceed with your question.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Walter, [indiscernible] (00:40:16).

Walter Spracklin
Analyst, RBC Capital Markets
Q

Yeah, thanks very much. Good morning, everyone. Yeah. Jennifer, echo as well. Congrats on the retirement. Wish you all the best. Perhaps, this is for Kenny. When we look at your intermodal volumes, they've been very good. We're focused a little bit here on some of the items that both you and Jennifer have mentioned on truck to rail conversion opportunity.

Can you, well, maybe trifurcate here between how that volume growth is coming in, whether you're seeing it mostly in economic – general economic, coming out of the freight recession type of driver, is it business wins or is

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it that truck to rail conversion? Just if you could size it for us, you know, an order of magnitude in those three buckets or if there's other buckets, I'm not mentioning here, but I appreciate if you give that kind of color.

Kenyatta G. Rocker
Executive Vice President-Marketing & Sales, Union Pacific Corp.
A

Well, this is great. I appreciate that question. I'm getting excited that I get to trifurcate the volume growth. Just take a step back. Remember, this volume growth has happened before. We saw the inflection and the acceleration of these diesel prices. So – and I said it in my comments, it's our fifth quarter of record growth. Over the last couple quarters, we've seen some things happen with the fuel. So yes, that has helped us go out and win some business. But before, like I mentioned, the service product is what has helped us go out and win that business five quarters ago.

And then lastly, you look at some of the investments that we made over the last couple three few years. They are paying off, as we thought, twin cities, Phoenix, modernizing Kansas City, Inland Empire. Having that capacity to grow the product with a strong service product has helped. We talked a little bit about resources. And Jim and I debate this all the time, what's the right buffer for our UP rail fleet? We have it. We're 100% on our mutual commitment program for customers on our rail box. But then on the boxcar side, Eric, you know, we're 100% – near 100% on car orders. So you put it all together, it's all of it. But it starts with the foundation of a strong service product. The investments we've made in the network.

Walter Spracklin
Analyst, RBC Capital Markets
Q

Appreciate that.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

[ph] Well, you keep that up, why don't you (00:42:44) just tell everybody what our strategy is completely, Kenny, okay? Just like. Thanks, Walter.

Walter Spracklin
Analyst, RBC Capital Markets
Q

You bet.

Operator: Next question is from the line of David Vernon with Bernstein. Please proceed with your question.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Morning, David.

David Vernon
Analyst, Bernstein Institutional Services LLC
Q

Hey. Good morning, guys. Thanks for taking the question. And, Jennifer, congratulations and best of luck on the next chapter here. Kenny, I wonder if you could help us understand what's going on around – going on with the intermodal business in terms of profitability? It looks like the RPUs came in maybe a little bit lighter than we would have expected, just given where – what's happening in the truck market. I'm not sure if that's mix on an underlying basis. And also looks like accessorials are elevated and purchased services is a little bit up.

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So if you could kind of give us a sense for, you know, how the business is performing from a profitability standpoint and how you expect it to perform into 2027 as you get around to, maybe the contracts resetting some of the index-based pricing, starting to respond to what we're seeing in the truck market, catch up on fuel, that kind of thing? Thank you.

Kenyatta G. Rocker
Executive Vice President-Marketing & Sales, Union Pacific Corp.

A

Yeah. So remember, David, we saw a transition in what's going on with the truck rates and truck capacity, really over, call it, spring to summer, when much of the bid season was pretty much baked. Now we're going to have an opportunity as we move forward here end of the year for several months of 2027 to have a better opportunity with our service products that we have to support the inflection that occurred in the summer. So, looking forward, you would expect a better position, a better environment for stronger pricing.

Jennifer L. Hamann
Chief Financial Officer & Executive Vice President, Union Pacific Corp.

A

Yeah. And then, David, just on your questionnaire tying in the purchased services, I did reference intermodal volumes. So we've got our Loup subsidiary. So as intermodal volumes grow with them, we tend to see an increase in some of the drayage costs. That was part of it. You – certainly when you think about our intermodal ramps, they're primarily operated by third-party contractors.

As we're putting more volume through those ramps, you see some elevation there. But I think it's also important to point out that on the other revenue line, you saw a 21% increase growth year-over-year there. That really is intermodal driven as well, because that's the revenue that you're seeing come through on that subsidiary side, as well as some of the accessorials associated with our containers.

And one thing to recall for everybody is that what I think is a big differentiator for UP is not only do we have strong relationships with asset-based IMCs, we also work with the non-asset-based guys because we have our own intermodal box fleet. And that's what Kenny was referring to when he said, we've got all the players on the field, but that's been a big plus for us this year.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Yeah, listen, thank you very much. Good question.

Operator: The next question is from the line of Stephanie Moore with Jefferies. Please proceed with your question.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Morning, Stephanie.

Stephanie Moore
Analyst, Jefferies LLC

Q

Good morning. Thank you. Appreciate it. Maybe taking this into a different conversation. And first, Jennifer, thank you very much for all the help and working with you over the years. So, I guess maybe starting out, investors, I

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think are obviously slicing and dicing a lot of the freight data right now. And I think they're trying to form a broader view on the economy. You've obviously called out some pretty broad-based strengths across industrials. And I think, maybe beyond data centers, what are you hearing from customers about demand through the rest of the year.

And then on the other side of this, given what we've seen this as of late in the food and beverage side, maybe being a little bit softer, do you think that's idiosyncratic or do you think that, maybe you're seeing something early on in terms of just the broader consumer? So any color on the volume environment would be great. Thank you.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Stephanie, so let me start and then pass it off to all three of you that want to comment. Bottom line is, it's nice that we see strength in the industrial market. And industrial for us goes across products that Americans use to build things, to move things, to tidy things up, whether it's steel, you name it, is there, including our Premium business and our Bulk business is pretty good, right, so the movement of all that.

So all that, it goes across the section and we have not seen or any indicator of the consumer slowing down that the consumer spends. Is there parts of the economy that are probably facing the higher inflationary pressure? Absolutely, there is, but there's a big piece still that are spending money and going out and buying. And, that's what we see. And Kenny, do you want to or any of the rest of you get more detail?

Kenyatta G. Rocker
Executive Vice President-Marketing & Sales, Union Pacific Corp.
A

I just want to really more or less talk mindset and the results. I mean, we don't come in and say, hey, the economy is tracking that one way and, oh, well, as we want to outperform the macroeconomic indicators. Industrial production up 1%, industrial team up 6%; automotive down 1%. You've seen the finished vehicles and parts up in the positive. Same thing with the housing starts. They haven't been where they want, where we like them to be, but we're going to outperform the macroeconomic indicators. So yeah, we want to pay attention to it, but our goal is to outperform it.

Stephanie Moore
Analyst, Jefferies LLC
Q

Great question. Thank you very much.

Operator: The next question is from the line of Jordan Alliger with Goldman Sachs. Please proceed with your question.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Good morning, Jordan.

Jordan Alliger
Analyst, Goldman Sachs & Co. LLC
Q

Yeah, good morning. Hi. I just wanted to come back to fuel in light of the energy volatility. Maybe talk a little bit more about what you can do around fuel efficiency, ability to improve on that. And then in light of the volatility, any

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impact on the third quarter drag, can you maybe talk to how you're thinking about the fourth quarter and the fuel impact? Thanks.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Let me make one point and then Eric and Jennifer or Kenny, but especially the two of you get through this. Bottom line is, this is the way we are. Railroads are much more efficient. It costs us way less per ton to move product across the US. So when fuel prices go up, it's naturally an advantage. What we need to do is show all those customers that are trying us now or deciding they're going to do this that our service level is high enough that they should stay with us and not all of them will as they drop.

But bottom line is, we see a time for us to show what a high level of service is, what consistency is in movement and the cost structure can be better for them, and it's better at the end of the day for the final consumer. So I like where we are, and we'll deal with fuel – with the fuel surcharge. We've got long-term programs that we go in and out with. And I think it's good and it's clear and our customers understand where it is. Eric?

Eric J. Gehringer
Executive Vice President-Operations, Union Pacific Corp.

A

[indiscernible] (00:49:42). Building on Jim's foundation, so then you start thinking about the specific initiatives we have. Now we're a little bit different than other railroads where other railroads start by talking about initiatives, we start by talking about the fundamentals, because when you're trying to conserve fuel or generate productivity or generate capacity, it's not about initiatives first. It's about the fundamentals.

So when you see us increased the fleet by 2%, but we're handling 4% higher GTMs in the quarter, that's us executing on the fundamentals. When you see us grow train length 2% to nearly 10,000 feet, that's us executing on the fundamentals, that also saves us fuel. Then on top of that, we've got our technology portfolio from our energy management system to our precision train builder that dictates the use of locomotives and route to even when we think about how we manage the locomotives inside the terminals at 14-hour dwell, which was also a 2% improvement in the quarter versus previous quarter – same quarter previous year. We're doing all the things you would expect us to, Jordan.

And then we wrap around that as one last layer, our perpetual dissatisfaction with our performance, always challenging ourselves to look for what's the next thing, whether the next thing is new or doing more of the thing that's already making us successful. And in the quarter, it netted out a 2% improvement in our fuel conservation, but we're not done.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

So you're actually doing something out there. I appreciate that, okay? Listen, great results, and I love the detail on what we're doing specifically to – if you stay the same, you burn fuel at a certain level, even if your locomotive is more efficient with the money we're spending on them. But if you can operate the same amount of business with the same amount of locomotives and a larger train size, we end up winning less cost, more efficiency. Love the story. Well done, Eric.

Jennifer L. Hamann
Chief Financial Officer & Executive Vice President, Union Pacific Corp.

A

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Yeah. Just the last point of your question there, Jordan, in terms of how do we see that impacting the fourth quarter. So, you heard me say that we're looking at pricing right now in terms of fuel prices for the fourth quarter to be around $4.85 a gallon. That compares to $4.21 that we averaged in the third quarter. So, at this point, I would say we're probably going to see a little bit greater impact to fourth quarter.

And we said it had about 140 basis point drag to us in the third quarter. So, that's how I would look at it sitting here today. Obviously, if we see a change in fuel prices, we'll update folks, but that's the current lay of that land.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Yeah. Listen, thank you very much for the question. Great question. Thank you.

Operator: The next question is from the line of Ari Rosa with Citi. Please proceed with your question.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Ari, how are you this morning?

Ariel Rosa
Analyst, Citigroup Global Markets, Inc.
Q

Hey, how are you, Jim? Good morning. And congrats to Jennifer. Echo everyone else in appreciating her contributions.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Ari, can I stop you there? This congratulations for somebody retiring, I don't understand, okay? Like, it's much more fun to work than to be retired. I thought if anybody should be, congratulation Kenny, Eric, and Jim that we're still going to work. Like this idea of congratulations to retirement, I have no idea. But go ahead, ask the question. I'm good. Retirement, thank you.

Ariel Rosa
Analyst, Citigroup Global Markets, Inc.
Q

Fair enough. Well, Jim, I know you're signed up for many more years ahead. So, it's good to hear. I'm sure a lot of folks will be encouraged by that. Jim, just going back to the merger, I'm curious what you say to customers who say, look, I understand the benefits – the efficiency benefits that come from – from not having to switch between railroads, but are concerned about the downstream merger effects and what happens with kind of that wave of further consolidation that could follow? If that's the big concern that customers have, what do you say in response to that?

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

I'll tell you. When – and I've sat down with a lot of customers, okay? Top 50 customers, I've written them a letter, specifically to their CEOs, ask me any question you want and I won't get into the detail with everything. I have met, Kenny, I could probably pretty fairly say between you and me, hundreds of customers. And we talked through.

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And actually, once we go through the detail, they go, son of a gun, okay? This sounds pretty good. They understand that every commodity that we move for them is competitive against another shipper. And it's driven by what the market is or even they understand that it's competitive against the world, whether it's soybeans going to Mexico, whether it's corn being exported, whether it's steel products. So, when they see the efficiency that we can give, they understand it and they see it.

Now let's talk about the next step. It's pretty straightforward. You can see what we're going through with the STB. It doesn't matter what people think. First of all, the Berkshire who actually is the company that owns the subsidiary, Burlington Northern, has been pretty black and white that they don't want that merger.

I don't know how they change, okay? They've been spending a lot of money. I just got a seven-hour deposition with their lawyers, okay, talking about every freaking question in the world. And they say they're against it. So I don't – in my lifetime, if they're against it, it sure won't be with BNSF, it's going to be with somebody else.

But let's say, they get religion. They still have to go through the process and prove that they're not – they're going to improve. I'll be honest, I have no problem with them if they merged. If CSX and BNSF merged, I think the customers and the US would get a better product and they – you would win against the world.

So, that's where I'm at with it, Ari. And I tell you, when I go through that and I'm not nervous and we give them the facts of what we're in that application and what we're doing. I hate to tell you, most of them go – well, we'll still go through it, but we see the benefits of what – Kenny, maybe you can add something that I'm missing there.

Kenyatta G. Rocker
Executive Vice President-Marketing & Sales, Union Pacific Corp.
A

Yeah. I mean, I believe we do a good job of personalizing the discussion with the customers. You got some customers, that, boy, they've got 10,000 railcars, and then you have that conversation about the fleet savings and that matters to them. You have some customers that have to pay dray costs at the interchange, and you have a conversation with them and they understand the benefits. You have other customers that want to compete, as you mentioned, globally and have optionality, whether it's PNW, the Gulf, competing with barge. So, I know the customers see the value that's there.

Ariel Rosa
Analyst, Citigroup Global Markets, Inc.
Q

Yeah. You bet.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Good question, Ari. Appreciate it.

Operator: The next question is from the line of Brian Ossenbeck with JPMorgan. Please proceed with your question.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Brian, how are you?

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Brian P. Ossenbeck
Analyst, JPMorgan Securities LLC

Q

Hey. Good morning, Jim. Good morning, Jennifer. Jennifer, I'll give you also congrats, but also, I know you like talking about the quarterly. Well, wait for a second here, Jim. I know you like talking about the quarterly OR cadence. So, I know you're going to miss that. So maybe you can walk us through that for the fourth quarter, some of the puts and takes and give us a little bit on fuel.

And then Jim, for all the other stakeholders that we've talked about here, one thing we haven't heard too much about it, I don't really know your level of interaction, but would just be like the DOJ and maybe the DOT, but they're on a little bit of a different track obviously, different entities. It's a lot of history there. So, we'd love to hear any context you can provide with your interactions with them, because their comments are due, I think, sometime in early December. So, thank you.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Yeah. Listen, Brian, you're a smart guy. You work for one of the biggest bank in the world, if not for sure pretty close. So, you guys have a lot of history of how the regulatory environment works. Pretty simple. The STB is the regulatory agency that will review and decide how we move ahead. The DOJ has the right to put comments.

In one sense, I would have liked the DOJ process, because it would have been done already, okay? But we go through the STB process. So, their comments are going to come forward. Have we had meetings with them? Yeah, they want to learn about the railroad industry and what we're doing. And when they put their comments on, which we have sat down with them, and we'll continue to answer questions of anybody, Department of Transportation or DOJ so that people can get facts, because there's a lot of miss facts out there, or people just don't understand what the true facts are. So, at the end of it, that's what we've done. The rest, Jennifer?

Jennifer L. Hamann
Chief Financial Officer & Executive Vice President, Union Pacific Corp.

A

Yeah. Brian, in terms of fourth quarter OR, so you heard my comments relative to fuel. Obviously, when you think about seasonality, you do tend to have some seasonal changes going with second and third quarter where you tend to have your highest volumes of the year. That's where you tend to have your greatest ORs. We'll likely see, well, very strong growth here continuing on in the fourth quarter.

Just on an absolute basis, probably a little bit of a seasonal step back when you consider the holidays and everything that happens in the fourth quarter. So, you obviously need to take that into consideration. But I think the important point is on a core operating basis, you have seen us make year-over-year improvements to our core OR, and that's going to continue. We have a great line of sight to being able to continue to very efficiently move this volume growth, and that will enable us to continue to improve.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

You bet. Thank you very much, Brian.

Brian P. Ossenbeck
Analyst, JPMorgan Securities LLC

Q

All right. Thanks, Jim. Thanks, Jennifer.

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Operator: Next question is from the line of Tom Wadewitz with UBS. Please proceed with your question.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Good morning, Tom.

Thomas Wadewitz
Analyst, UBS Securities LLC

Q

Yes. Good morning. And Jennifer, I'd just say thank you and wish you well. Pleasure interacting with you and benefiting from your insights over the years. Jim, I just got to say I'm a little more optimistic on Santa Claus than you are. But anyways, a little more of a fan. But maybe...

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Yeah, but you know who Santa Claus is, right? It's not real.

Thomas Wadewitz
Analyst, UBS Securities LLC

Q

Yes, yes, I guess so. All right. So let's see. I understand.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Sorry about that, ask the question, I apologize.

Thomas Wadewitz
Analyst, UBS Securities LLC

Q

No, no, no. I'm trying to add a little here. I think your position is pretty clear. Your single-line service is a strong benefit. That's a compelling driver for the merger, and you got some other elements in there. But let's say that there are potential elements of consideration for the constituencies, kind of labor shippers, railroads. How do you think short lining is a component of what you would want to do in the future? Is that important to say, hey, there's some branch lines inefficient and we'd like to have flexibility? Or is that something that's not really important? I'm just thinking that's a point of potential negotiation.

And then with respect to the CN deal, does that preclude you from giving access to another railroad on that St. Louis to Kansas City? Or is it like if you wanted to do that, you really could?

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Well, we can do anything that we can control, Tom. But at the end of the day, the Canadian National deal fixes that issue of a little concentration and overlap on that piece. And listen, Canadian National is a very good railroad goes across Canada, goes all the way to the Gulf and it's going to give a lot of opportunity for customers in there when they serve them to compete against us, and we're looking forward to that.

So we're pretty comfortable with where we are, but we always are willing to listen. And you said something about short lines, and it sort of sounded like you thought maybe we would short line more. No, we are not going to sell

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off pieces of our railroad, large pieces to anybody, okay? I've always found that – in fact, I found that short lines are really good at some things. But listen, if you take a look at the way short lines work and what they do, we should be able to do that ourselves, and we do that every day on our railroad. So we're pretty good at dealing with customers.

We're pretty good at growing the business and a lot of the business that's being given, and we see the short lines that we have attached to the Union Pacific and Norfolk Southern will grow because of the business that we're going to grow on the railroad. But listen, it's a bigger picture. If you step back, short lines in the United States of America do receive a lot of funding from the federal government per mile and tax breaks that put them in a different place in how they operate. But that's not enough for me to think – and if you think about it, they get $3,400 a mile for every railroad. And some of them are not small mom-and-pop railroads anymore.

I think Genesee & Wyoming bought – was bought out by a couple of foreign investment funds for $8.5 billion. So even though they own over a 100 short lines, they're the – okay, that's really not a short line. It's a big railroad, a big piece of business. So I'm not into selling to somebody else our railroad unless it allows us to grow more business and to be able to deliver a better product for our customers. And I think Union Pacific, with where we are operational efficiency, where we are with assets, where we've invested in our railroad, most of the time we want to keep everything internal and grow and be able to manage it ourselves, Tom. So hopefully, I answered the question.

Thomas Wadewitz
Analyst, UBS Securities LLC

Q

Yeah, maybe just another component. Any thoughts on like, are there active discussions with the parties? Is there a phase when you might expect them to become more active with, you know, what you might offer, whether it's shippers labor, other railroads?

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Listen, I'm willing to talk to anybody, but at the end of the day, it has to be a good reason. It can't be just because I want it, okay? So let's go back to the Santa Claus piece. Right now, they've put a piece of paper out that says what they want from Santa Claus. Santa Claus is not real. So, we're going to look at it. But I have to wait to see what factually they can put in on the November 18th deadline to see if there's an issue there that we've missed. I don't think we've missed anything, but if there is, more than willing to talk.

And I'll be honest, you know, even though I've known some of the CEOs at the other railroads and some of the people below them for a long time, for some reason they don't talk to me very often anymore, right now. I don't know, I'm still a nice guy, right, Jennifer. But, you know, they've got this coalition against making America better. They have a coalition that won't give the employees a guaranteed job for life. It's truly interesting, Tom. Truly interesting. I love where we are.

Thomas Wadewitz
Analyst, UBS Securities LLC

Q

Okay, great. Thanks for the time, Jim.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Thank you.

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Operator: Our next question is from the line of Jonathan Chappell with Evercore ISI. Please proceed with your question.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Good morning, Jonathan.

Jonathan Chappell
Analyst, Evercore ISI
Q

Good morning. Can you hear me? [indiscernible] (01:05:00), Jim.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Hear you. Perfect.

Jonathan Chappell
Analyst, Evercore ISI
Q

All right. Great. Sorry. I don't know what happened before, but I was doing some damage control with my two young kids explaining to them about, Mr. Vena, just lying about that Santa.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

[indiscernible] (01:05:09), I apologize. Are you serious? I apologize.

Jonathan Chappell
Analyst, Evercore ISI
Q

No, I'm not serious. They're at school. They do believe, but they're at school. And that was all [indiscernible] (01:05:18).

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.
A

Yeah, good. So don't let them hear me, okay? I'm worried about my grandkids. If my wife was listening, I'm going – after I said that. I said, holy cow, I could get myself big trouble at home. That's not the place I want to be in trouble, okay? Go ahead.

Jonathan Chappell
Analyst, Evercore ISI
Q

No, I'm not going to let – I'm not going to let my nine-year-old read the transcript tonight, like, he typically does. But anyway, I don't know who wants to take this, maybe Eric, but nine consecutive quarters of workforce productivity. You're investing more now with your capital envelope. Kenny talked about intermodal, basically going from strength to strength. It seems like the West Coast ports are setup really well. At a certain point, do you reach a hurdle where ringing out more workforce productivity becomes more difficult as you shift more top line volume growth? Or is this just kind of an evergreen opportunity that may ebb and flow, depending on where we are in the cycle?

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Eric J. Gehringer
Executive Vice President-Operations, Union Pacific Corp.

A

Yeah, thank you for that question, Jonathan. You know, I don't think it's either one of those, because when you think about the way that we think about productivity, you know, the driver behind why we focus on it is to ensure that we're putting Kenny in the team and the best possible position to compete in the market. And no matter what the markets are giving us, no matter what the railroads like, that's always going to be with us. There's always going to be a drive and a strong commitment to put Kenny and the team in the best possible position.

Now, if you think then within that and you say, okay, now what do we think about workforce productivity as we look out? I still see opportunities. Hell, before I came to this call, I had two phone calls this morning. We were talking about things that are related to workforce productivity. So even on a daily basis, we see opportunities. And then what you've seen us do and you'll continue to see us do is, as I mentioned with Jordan's question, focusing on the fundamentals, that's perpetual, we will never stop doing that and then the technology side.

Jonathan Chappell
Analyst, Evercore ISI

Q

Keep on going.

Eric J. Gehringer
Executive Vice President-Operations, Union Pacific Corp.

A

Yeah, the technology part, you know, we don't – we talk a lot about it. We don't necessarily always talk a lot in detail. But when you think about the technology side, right, it's first designed to improve the decision making of our frontline leaders. And we've talked about a lot of results here today.

All right, well, all the four of us are part of it. The reality is the 29,000 people out in the field that are switching boxcars, fixing track, fixing cars, they're the ones that actually made the results happen. And so if you can give them, which we have and you can continue to empower them to make even better decisions, you're going to drive workforce productivity that way.

And then when you think of some of our work around semi-autonomous operations and our terminals and our engineering gangs inside our locomotive facilities, you're just adding layer of layer and layer of success that we've delivered on. And I don't see an end to it.

Jonathan Chappell
Analyst, Evercore ISI

Q

Yeah, right on, Eric.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Listen, great question. Thank you very much. What time is NS supposed to start? 9:00? What, eight minutes? Okay. Lightning round, let's go. Okay. We'll be fast.

Operator: Next question is from the line of Richa Harnain with Deutsche Bank.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

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Morning. How are you?

Richa Harnain
Analyst, Deutsche Bank Securities, Inc.

Q

Hey. Good morning. Jim, you can chuckle, but I have to tell Jennifer how, we've been really impressed by the quality and consistency of Union Pacific's execution over the past few years. And Jennifer, obviously, you played a major role in that success. So, congratulations. And I'm sure you're proud of what you've helped build.

So for my question, it's for Eric and maybe just following up on that last question, actually. From a technology standpoint, are there capabilities, tools or operating systems at NS that you don't have today or vice versa that make you particularly excited about the merger opportunity?

And on a related note, and maybe more broadly for the team, for Kenny or Jim, what do you make of autonomous trucking as sort of a competitive offering to railroads, as that technology matures? Do you see it as a meaningful competitive threat, or do you think investors are sort of overestimating its impact to rail? I would love to hear, what structural advantages rail retains that it can't replicate. I'm sure fuel efficiency is top of the list, but I'd love to hear that from you. Thanks.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Let me answer that last one real quick. I want to try to get the off. I don't want to overlap with NS. Bottom line is, you always have to look at how you move forward, not backwards. So autonomous is going to happen. We need to be ready for it to be the most efficient railroad in North America, which we are today. And we will continue to find ways to be better. We will use technology every way to be able to move it ahead.

So that's the challenge. And it's exciting. It would be boring to get up in the morning and say, well, guess what? We're railroading, I love it. We have a lot of plans on how we move this railroad forward to make it. And part of it is this merger that will help us be able to give much more seamless operation. Eric, real quick on the tech.

Eric J. Gehringer
Executive Vice President-Operations, Union Pacific Corp.

A

I love the way you framed that question because oftentimes the question we get asked is, what can you bring to the NS? But you're right, there are things on the NS that we will look forward to bringing to the Union Pacific, and we're talking about those because we can talk about integration. So like, one example, just briefly, there, wayside technology for the inspection of rolling stock, whether that's locomotives or railcars, is really impressive, so yes.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

And the technology behind it, the software, right?

Eric J. Gehringer
Executive Vice President-Operations, Union Pacific Corp.

A

Absolutely, identifies defects, even better than our system. So yeah, we're looking forward to taking the best of Union Pacific to NS and the best of NS to bring it to Union Pacific.

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V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Thank you very much. Okay. Next question.

Operator: Our next question is from the line of – final question from Brandon Oglenski with Barclays.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Good morning, Brandon.

Brandon R. Oglenski
Analyst, Barclays Capital, Inc.

Q

Thanks for getting me in here. Yes. Good morning, Jim. And Jennifer, condolences that you had to go drink margaritas now.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Now, Brandon, you could take – ask any question you want. Take your time.

Brandon R. Oglenski
Analyst, Barclays Capital, Inc.

Q

Well, Jim, maybe you. We'll be a little critical here. I know you have a majority of the unions, but obviously, the BLET here is against the merger, so maybe if you can speak to that. And then in the response of requests from a number of your competitors, they've called out this vertical competition issue that the STB could be incrementally concerned about with this merger. And obviously, given the closer comments as well, I guess, is there like a medium ground on some of these responsive requests where you could see potentially more deals happening to get this across what could be really arbitrary issues approving competitive enhancement in the future? Thank you.

V. James Vena
Chief Executive Officer & Director, Union Pacific Corp.

A

Yeah. Listen, I would be remiss not to say, and I get it, I'm aggressive against the side that says, like what are we going to give? But there's always deals to be made, okay? But let's listen, let's wait, because time is real important. If you're playing poker, you don't put everything down before you see the last card or the third card coming out. So bottom line is, I'm waiting to see what they put in on November 18th that has to be factual, has to show what their concerns are and how we move ahead. So – and then at that point, we'll re-examine. I think we've done a good job so far. I said it before, I was surprised at the comments that we got from one of the STB members, especially when we were the ones that said we'd be open for discussion.

So it is what it is. That's part of the process, and that's why we applied again. With the unions, the BLET, let's get serious. People don't understand this. Again, there's a deal to be made. But every locomotive engineer that's covered under the BLET, the Brotherhood of Locomotive Engineers and Trainmen actually gather and increase their seniority with Smart-TD, who's a proponent for this, who's accepted it and sees the benefit. If somebody from the BLET gets cut back and they can't hold as an engineer, they become a conductor and guess what? So they're all protected already. I have no idea what – I've already got a deal that covers every one of our locomotive engineers at both railroads.

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So I have no idea what the BLET is doing. They want to get something like job protection for life. I'm not into that. I'm not setting this company. So I'm not going to do things that are going to hurt this company. And I know I'm going longer than I should. At the end of the day, if anybody thinks we're going to make a bad deal for Union Pacific, we're not. We will walk away from this. We're pretty strong as we've just shown this quarter, and we will move ahead. But it's so good and compelling for the country that it's crazy for us not to push this to the final piece. Anybody else want to comment? But good question. Thank you very much.

Brandon R. Oglenski

Analyst, Barclays Capital, Inc.

Q

Thank you.

V. James Vena

Chief Executive Officer & Director, Union Pacific Corp.

We have time for one more. I think that's it, right? Thank you very much. Okay. Appreciate it. Listen, all I have to say is this is, I'm real proud of the team. I really am. And everybody, the management team, the unionized employees, everybody at Union Pacific, heck of a quarter. And it's about who we are, what we want to do and how we win and move ahead. And I love our competitors getting better. I love our competitors getting more efficient because we make up such a small amount, these railroads of the total products that are moved in the US that we could all grow and win. And we work together so many places together to win. And I think this merger has driven people to get – merger discussion has driven people to get better, and I love it. A little more competition, movement of products more by rail than by truck, decongesting highway systems, decongesting city roads. I'm telling you it's a win-win, and I love it, and we'll talk to you all next quarter.

And Jennifer, in all seriousness, congratulations, okay? Even though I don't understand retirement, but congratulations, enjoy yourself and all the best, and thanks for everything you've done. Thank you very much, everyone.

Jennifer L. Hamann

Chief Financial Officer & Executive Vice President, Union Pacific Corp.

Thank you, Jim.

Operator: Thank you. Ladies and gentlemen, thank you for your participation. This does conclude today's teleconference. You may disconnect your lines at this time, and have a wonderful day.

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EXHIBIT 2

Corrected Transcript

22-Oct-2026

Norfolk Southern Corp. (NSC)

Q3 2026 Earnings Call

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MANAGEMENT DISCUSSION SECTION

Operator: Good morning, ladies and gentlemen, and welcome to the Norfolk Southern Corporation Third Quarter 2026 Earnings Conference Call. At this time, note that all participant lines are in a listen-only mode, but following the presentation, we will conduct a question-and-answer session. [Operator Instructions] Also note that this call is being recorded on Thursday, October 22, 2026.

And I would like to turn the conference over to Luke Nichols. Please go ahead.

Luke Nichols

Assistant Vice President-Investor Relations, Norfolk Southern Corp.

Thank you and good morning, everyone. Please note that during today's call we will make certain forward-looking statements within the meaning of the Safe Harbor provision of the Private Securities Litigation Reform Act of 1995. These statements relate to future events or future performance of Norfolk Southern Corporation, which are subject to risks and uncertainties and may differ materially from actual results. Please refer to our annual and quarterly reports filed with the SEC for a full discussion of those risks and uncertainties we view as most important.

Our presentation slides are available at norfolksouthern.com in the Investors section along with a reconciliation of any non-GAAP measures used today to the comparable GAAP measures, including adjusted or non-GAAP operating ratio. Please note that all references to our prospective operating ratio during today's call are being provided on an adjusted basis.

Turning to slide 3, I'll now turn the call over to Norfolk Southern's President and Chief Executive officer, Mark George.

Mark R. George

President, Chief Executive Officer & Director, Norfolk Southern Corp.

Well, good morning, everyone, and thank you for joining us. We are here in Atlanta and I'm joined by Brian Barr, our Chief Operating Officer; Ed Elkins, our Chief Commercial Officer; and Jason Zampi, our Chief Financial Officer.

Our third quarter was strong with steady execution making notable improvements to our network while delivering solid results. We have an outstanding team of thoroughbreds who remained focused on the fundamentals, operating a safe, reliable railroad, serving our customers, growing the business and improving productivity across the network. So, a big thanks to all our team. Collectively, we delivered very strong revenue and operating income growth while we continued to advance productivity. While we absorbed higher fuel costs this quarter, our team executed well on the controllables, maintaining cost discipline while improving the efficiency of the operations.

Overall, we were pleased with how the business performed in a dynamic operating environment, and believe that the underlying fundamentals of the franchise remained strong. Demand for rail service is growing with encouraging trends in the areas such as domestic intermodal and chemicals, which Ed will discuss in more detail. The current macro environment is tightening the truck market, and that helps rail be more competitive, and what you saw in the quarter is us capturing the increased customer demand.

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Operationally, we continue to make progress. Under Brian's leadership, we've made targeted adjustments across the network and key service metrics are improving even as we handle higher volumes. Brian will detail some of the changes that helped us achieve record productivity performance in the quarter, and we are making other operational improvements while adding resources that will improve network performance going forward and you should expect to see these efforts show up more clearly as we close out 2026, and continue into next year.

Bottom line, we're handling the volume today and we expect stronger results as the resources come online and our demand pipeline continues to fill out. While we are encouraged by the meaningful progress we're making we know there's more work to do and we've consistently said that we hold ourselves to a higher standard. We're accelerating some targeted capital investments into this year to accommodate continued volume growth, so that we can deliver the level of service our customers expect. Meantime, we've identified opportunities to build more sustainable processes across our network, so we can create a more resilient railroad for the long term.

And with that, let me hand it off to Brian.

Brian Barr

Chief Operating Officer, Norfolk Southern Corp.

Appreciate it, Mark, and good morning, everyone. I want to begin by thanking the men and women of Norfolk Southern. As I spend time in the field, it is clear our team is putting in the work. Our railroaders managed another demanding quarter overcoming significant weather and operating disruptions while remaining focused on serving our customers and operating safely.

As I said on this call last quarter, and say it to our teams frequently, successful railroading comes down to doing the fundamentals exceptionally well. Originate trains on time, reduce terminal dwell, run the plan and align resources with demand. During the third quarter, our focus on those fundamentals drove clear sequential improvements across the network.

Turning to slide 5, the most important part of railroading is ensuring our employees and the communities we serve remain safe. Our preliminary year-to-date FRA Personal Injury Index is 1.08. Our train accident rate is 1.74, a historical best for Norfolk Southern. Our accident performance continues to show step function improvement and it's a clear sign of our railroaders' commitment to safety. We recognize the progress, but we are not satisfied. We will never stop pushing ourselves to be the safest in the industry.

Turning to slide 6, we entered the quarter with a clear plan to recover network fluidity by improving originations, reducing dwell, increasing velocity and getting the railroad back on schedule. We delivered sequential improvement across those foundational measures. These are results our customers can see and feel. This quarter-over-quarter improvement demonstrates that our operating actions are producing results.

Moving to slide 7, our progress came despite significant August weather across the north. On our network's high-speed corridor, the team quickly restored infrastructure, removing hundreds of downed trees, repairing multiple washouts and handling widespread power outages by activating strategic reroutes and repositioning resources. While the historic wind and rain interrupted some of our July momentum, it did not derail our progress. We made meaningful improvements versus the prior quarter, as you can see by the metrics on the slide. We also drove substantial year-over-year progress operating 5% more gross ton miles in quarter three 2025 (sic) [2026] (00:07:04). The network absorbed this growth almost entirely through our existing infrastructure driving a 4% increase in both train length and weight compared to the same period last year.

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Turning to slide 8, we generated strong productivity in a higher volume environment. Our on-time origin performance increased by 12 percentage points, and we continue to see progress here daily. Running an on-time network is essential to driving cost out. Workforce productivity was a quarter three record. We have begun localized hiring to support growth and targeted train plan consolidations will reduce labor intensity where demand is strongest allowing us to continue capturing truck-to-rail conversions.

In the third quarter, the team made improvements by redesigning car connections at terminals, and removing costly handlings to reduce dwell. In the quarter, we eliminated 95 crew starts per week, and took 200 cars offline per day. These adjustments allowed the network to accommodate 3% carload growth in the quarter.

Let me give you a couple examples of our recent plan improvements. First, we consolidated smaller trains between Birmingham and Macon. This saves 14 crew starts per week, reduces the number of locomotives needed and delivers cars faster to the customer. In another example, we shifted 50 daily switch cars from Enola Terminal to Allentown Yard. That change freed up manpower for road service in Enola and moves the switching work to a lower cost per car location. It also removes six blocks at Enola creating additional yard capacity. Adjustments like these are keeping our network fluid and agile.

When trains originate on time and move faster, re-crews decline, locomotives turn more efficiently, cars spend less time in terminals and crews spend more time moving freight. That is how service and productivity reinforce one another.

I'm proud of the way our operating team continues to improve the railroad. That work has us on track to deliver at least $650 million in cumulative cost savings. We made meaningful progress during the quarter, but there is more work ahead. Our standard is a railroad that operates safely, executes consistently and delivers service our customers can plan around every day. We will keep leading from the front, running the plan and delivering results.

I will now turn the call over to Ed.

Claude E. Elkins

Chief Commercial Officer & Executive Vice President, Norfolk Southern Corp.

Thanks a lot, Brian and good morning, everyone. Our commercial results this quarter reflect a strong macro backdrop, and a tightening truck market, which has allowed NS to drive growth across our network. Volume grew in every one of our business groups and we set an all-time record for revenue less fuel.

Let's move to slide 10. We achieved 14% overall revenue growth for the third quarter, which is inclusive of fuel surcharge. And when we look at revenue on a less fuel basis, we delivered a 6% increase to set an all-time record. We finished the quarter with broad-based strength achieving 3% volume growth in each of our business verticals. These gains were supported by elevated global energy [indiscernible] (00:10:35) and favorable truck market dynamics. RPU less fuel increased by 3% as our teams focused on pricing to the market.

Looking within merchandise, volumes increased 3% and revenue less fuel achieved another record increasing 5% from a year ago, driven by strength in our metals and construction franchise, and by strong energy demand in our chemicals markets. RPU less fuel grew 2% year-over-year as strong core pricing was partially offset by some mix.

Let's shift our focus to our intermodal business. Volumes there increased 3% reflecting strong freight demand and a tighter truck market conditions that favorably positioned our intermodal partners to succeed with particular strength in our domestic and premium segments, which was partially offset by international. Overall, intermodal

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revenue less fuel increased by 7% as positive mix and a positive price environment pushed RPU less fuel up by 4%.

Looking at our coal franchise, volumes grew 3%, largely due to increased export volumes, which includes the new customer that we announced earlier this year. And despite strong demand, utility volumes were relatively flat versus 2025 due to plant outages along with some localized service challenges that limited our ability to capture upside. RPU less fuel increased by 2% lifted primarily by tailwinds from favorable seaborne pricing.

Let's go to slide 11 and here we highlight several dynamic factors that continue to influence our market outlook. The inflection of fuel price has generated opportunities across energy-related commodities, which could carry forward for the duration of the conflict in the Middle East. However, if energy prices remain elevated in the longer term, it could begin to impact overall customer demand. We're keeping a close eye on this interplay. The tightening truck market bodes well for highway-to-rail conversions across markets such as forest products and consumer products.

And lastly, new project activity and industrial development remains ahead of last year although the pace has normalized following an exceptionally strong second quarter. And as we look forward, we remain positive on the outlook for new industrial development activity as tariff-related concerns ease. Additionally, we have a subdued, but positive outlook for vehicle production.

Industrial activity has maintained its momentum, with manufacturing continuing its expansion for the ninth consecutive month. We're maintaining an optimistic outlook for the industrial sector despite ongoing volatility in the broader economic landscape. Global energy prices, while a significant wild card, could continue to support near term opportunities in markets like natural gas liquids, sand and crude oil.

Looking specifically at our intermodal markets, truck market conditions continue to trend positively. Rising rates reflect tighter capacity against a steady demand backdrop and we expect resilient consumer demand to support our domestic and premium segments in the near term as new orders increase and retail sales have shown modest growth and on the other hand, war and trade uncertainty will continue to weigh negatively on international volumes on our network. And overall, we stand poised to take share from the highway as elevated fuel prices make conversion from truck-to-intermodal more attractive to our customers.

As we turn to coal, the outlook is positive for the remainder of 2026, and we expect growth to be led primarily by our export franchise, but will also be supported by favorable market conditions within our utility business.

Let's go to slide 12. Throughout the third quarter, we continued to build momentum across the business. Stronger service performance is enhancing customer confidence and their confidence is supporting market share growth and at the same time, new digital and operating capabilities are enabling us to grow more efficiently.

Our digital investments are delivering tangible benefits for both customers and our operations through greater automation, visibility and better ease of doing business. Whether customers are requesting a rate or seeking information on an active shipments, we're delivering tools that help deliver faster and more consistent answers. We're streamlining the end-to-end rate request process through a single, intuitive platform that allows customers to submit, manage and track their requests in one place. This reduces manual touchpoints, it increases transparency and accelerates decision-making. We're focused on delivering an increasingly seamless customer experience. At the same time, we're also enhancing shipment visibility by combining real-time network data, historical trends and machine learning and superintelligence to adapt to changing network conditions. The result

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is a more accurate and more actionable shipment information enabling customers to plan more effectively, operate more efficiently and ultimately make decisions with greater confidence.

As these capabilities continue to scale, our goal is simple, make Norfolk Southern the easiest railroad to do business with so that we win more freight in competitive markets and as always, we want to thank all of our customers for their continued partnership and business. The entire NS team is aligned around delivering the service that our customers need every day, building trust as a vital partner for them in their supply chains.

And with that, I'll turn it over to Jason to review our financial results.

Jason A. Zampi

Chief Financial Officer & Executive Vice President, Norfolk Southern Corp.

Thanks, Ed. I'll start on slide 14 with the reconciliation of our GAAP results to the adjusted numbers that I will discuss today. During the quarter, we incurred $42 million in merger-related expenses and $28 million of net costs related to the Eastern Ohio incident. Adjusting for these items, the operating ratio for the quarter was 65.4% and earnings per share was $3.62.

Slide 15 details the comparison of these adjusted results versus last year. As expected, higher fuel prices were a significant driver of both the revenue and expense increases, accounting for about half of the variance in both line items. Last quarter, we were expecting fuel to be a tailwind to our third quarter operating ratio. However, as I previewed a couple of weeks ago, fuel prices actually increased as we progressed through the quarter and that negatively impacted our operating ratio by about 250 basis points from where we thought we would be. That said, higher volumes and RPU in the quarter helped drive a 10% improvement in earnings.

Drilling further into the expense line items on slide 16, costs were up 17% for the quarter. As I just discussed, over half of that increase was driven by the rise in fuel expense. I'll also remind you of last year's significant land sale that impacts the comparison to prior year as well. Setting aside those items, continued inflationary pressures and volumetric cost increases are the primary drivers in our other P&L line items, including comp and ben, purchased services and materials.

Summarizing our financial results on slide 17, despite the inflationary headwinds we faced, we drove an increase of 7% in operating income and delivered a 10% increase in both net income and earnings per share. As we move into the fourth quarter, we continue to manage through the volatility of fuel prices that will influence the trajectory of the operating ratio. That said, we're optimistic about the current demand environment and our ability to grow volumes, revenue and earnings.

Mark, I'll turn it back over to you.

Mark R. George

President, Chief Executive Officer & Director, Norfolk Southern Corp.

Okay. Let's turn to slide 19. Looking ahead, our priorities remain clear. Most importantly, we will continue to operate a safe and reliable railroad. Safety remains the foundation of everything we do and we remain fixated on that. Network velocity increased from Q2 despite the higher load on the network and some disruptive events that Brian talked about. Our team is actively recruiting and training new T&E employees to augment our resource base to accommodate growth while we still drive smart productivity and efficiency actions. Accelerating and maintaining a fast network is essential to provide the consistent, high-quality service that our customers depend on to grow their businesses.

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Now turning to guidance, the fuel environment has remained elevated. As a result, our updated adjusted OpEx guidance for the full year is to be just north of $9 billion, which includes approximately $700 million of incremental fuel expense compared to our view at the beginning of the year. While higher fuel prices continue to pressure our cost structure, our team remains disciplined on managing controllable costs and delivering productivity improvements across the network.

I'm exceptionally proud of this team as they've managed through the volatile environment this year while managing to keep core operating costs within the original guide we set forth at the beginning of the year, despite stronger volumes. The underlying business remains healthy and we're committed to balancing growth with operational efficiency. Now, we are increasing our capital expenditure outlook and expect 2026 CapEx to be roughly $2.1 billion, which is up from $1.9 billion originally. The incremental reinvestment in the franchise is geared toward positioning us to capture growth opportunities that we see on the horizon as well as to enhance network resilience and efficiencies.

We're encouraged by the growth we're seeing across parts of our business, but we also recognize that today's environment won't persist indefinitely. We view most of the macroeconomic factors that are driving the recent truck-to-rail conversions as temporary. But what the freight market today is showing us is that when shippers are given a rail product that offers better value than the highway, they move freight to rail quickly and the Union Pacific-Norfolk Southern combination is designed to create those conditions permanently.

Okay. With that, we will now open the call to questions. Operator?

QUESTION AND ANSWER SECTION

Operator: Thank you. [Operator Instructions] Thank you. And your first question will be from Scott Group at Wolfe Research. Please go ahead, Scott.

Scott H. Group
Analyst, Wolfe Research LLC

Q

Hey, thanks. Good morning. Just a couple things. Mark, your comment about the truck-to-rail conversion being temporary, just add some color there. Is your thought that like when fuel goes down that we lose this share back to truck or are you saying like incremental share gains will get tougher whenever fuel goes down or [ph] maybe I thought may we have (00:22:51) another thought on that. So, I'm just curious about that. And then, Mark, you've also just like in recent quarters like been talking about the competitive dynamic, and I'm just wondering how that's evolving and how we should be thinking about pricing going forward in a world of higher truck rates and better rail volumes?

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

Hey, good morning, Scott, and thank you very much. Okay, so, yeah, look, the competitive environment it's definitely pretty robust right now. I think you see all the competitors offering new products coming together in the wake of the announcement of the merger. We've definitely seen a more enhanced competitive environment. So, for sure, we're seeing more competition. The good news is, and I think that's all good by the way for the rail industry as a whole, because we are now finally getting some share back from the highway, certainly aided by the

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rising fuel prices, but still, nevertheless, I think the rails cooperating together is really a good thing even if it creates a tougher situation for us.

So, definitely that – I would confirm that dynamic exists and look, when I talk about temporary, what I mean here, Scott, is obviously the rail – I'm sorry, the fuel pricing has pushed freight to the highway. We're seeing a large part of our intermodal growth has been driven exactly by highway-to-rail conversion. No doubt about it. Now that is having an impact on the trucking market, and certainly, there's some capacity limitations now in trucking. But over time, when fuel goes back to where it was, you can expect that some will revert back to – a large portion of what we've gained will eventually, and it might take a year or two, but it will eventually go back to the highway unless this industry does some very structurally different things, which is really what I was alluding to there at the end. So, that's why I think the merger is the real difference-maker here in trying to make permanent some upward inflection on share recapture. So, hopefully that clarifies it. Thanks, again.

Operator: [audio gap] (00:25:17) question will be from Jonathan Chappell at Evercore ISI. Please go ahead, Jonathan.

Jonathan Chappell
Analyst, Evercore ISI

Q

Thank you. Good morning. Ed, every single rail call, every single quarter, asked about pricing, can we get some broad-based answer, but if we look at your RPU ex-fuel across all three segments, they're all really strong. So, I understand that intermodal you have some truck benefits, coal's kind of the benchmarks which is out of your control, but merchandise continues to set a record. So, can you kind of help us frame out kind of what was controllable versus what wasn't, and kind of where you are in kind of recapturing price as the service continues to improve?

Claude E. Elkins
Chief Commercial Officer & Executive Vice President, Norfolk Southern Corp.

A

Sure. Yeah. Thanks for the question. I'll try not to be high level and generic even though it might be unavoidable in some cases. But look we've had a strong history of price over a long period of time, and having a service product that is recovering has allowed us to exhibit additional value for our customers and that includes our industrial customers. Now, it also helps that what we see is a pretty robust industrial backdrop when it comes to the macro, that nine months of expansion now in terms of manufacturing and new orders continue to sort of propel what's going on out there.

We see a strong industrial development pipeline of our own, which we think is indicative also of a strong macro. So, it's – it is a growth environment right now on the industrial side of our business, which is where, of course, our merchandise business mostly lives, and we've been able to take advantage of the service that we've offered with that value to really try to price to the value of that product. I know other people say that and we all aspire to it, but it's been a key part for us and that really in the merchandise segment, you think about it, we've got some mix headwinds on that side of the business as well, which kind of waters down our efforts when it comes to RPU, which of course is not really price. So, we're proud of that.

On the intermodal side, certainly, mix plays a role there as well, but I will tell you that we've spent – and I know I've told you this before, we've spent a lot of time renegotiating our contracts and reconfiguring how we adapt to changing market conditions. So, I think we're in the really early innings of seeing that happen, and I really expect that we'll continue to see that happen as this environment persists. Thanks again for the question.

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Operator: Next question will be from Jason Seidl at TD Cowen. Please go ahead, Jason.

Jason H. Seidl
Analyst, TD Cowen

Q

Hey. Thank you, operator. Hey, Mark and team. Mark, you sort of mentioned if the industry doesn't take a few steps that you fear that some of this stuff that you've gained – the traffic that you've gained can be lost over the next two years, I guess when you look at that assumption are you assuming that capacity comes back to the trucking market as it has historically, because it does appear to be some structural changes in at least some of the regulatory regime here? And also, aside from sort of creating that transcontinental option that you and the UP are proposing, what are other things that you think the industry can do to retain this traffic?

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

Great questions, Jason. Thank you. Look, yes, I think eventually capacity does come back into trucking when the prices – the barriers of entry – barriers to entry are very low. So, capacity will come back when fuel prices go back down and I think that presents a competitive challenge for rail. I think don't forget the threat of autonomy with trucking and what that also will do to make the product more attractive and appealing. Just aside from the cost benefit for the truckers, they're going to also have lack of rest hour requirements when trucks are driving.

So, they're going to also deliver products faster than they currently do today, which is already faster than the railroads. So, those are the things that I'm talking about we have to structurally change. So, what we can do aside from the merger is we still have to be consistent and reliable with our delivery. And the challenge is that railroads can't always flex to sharp inflections and volume. We saw that post-COVID, and I think you see a little bit of that now even. When you start to see volumes hit beyond a couple few points, it starts to stress your crew capacities.

So railroads have to be much more nimble. The challenge we all have as an industry is to bring on T&E resources. It's a grind. These are hard jobs to fill. You have considerable attrition through a six-month training process. So, you have to basically hire double what you think you need, because you're going to end up losing half by the time you get to the end of a six-month training process. And that means you have to predict six months in the future what the volumes are going to be.

And if you get that wrong, you might be either short or you could be long on resources. And, there's this area called Wall Street that thinks that you can be perfectly volume variable, but it's a challenge. So, we have to somehow crack that nut and figure out how to ensure that we've got adequate buffer in our resources to be able to accommodate a little bit more volume when we don't expect it. And let's just talk about recent history. In Q4 of last year, we were all feeling really terrible about the volume environment, and we weren't feeling very optimistic looking into 2027 about the volume environment. But it was exactly then you had to have the conviction to go and really augment your T&E resources and significantly increase for what eventually became a volume inflection in the middle part of 2026 or really the second quarter of 2026. And if you get that wrong, you saw challenges in your service product. So that's a real-time recent example of the challenge railroads have and we have to crack that nut. Thank you.

Operator: Next question will be from Chris Wetherbee at Wells Fargo. Please go ahead, Chris.

Chris Wetherbee
Analyst, Wells Fargo Securities LLC

Q

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Hey, thanks. Good morning. And maybe I can pick up on that last answer. So, I guess as we think about service and your capacity for growth and maybe take into context with the bump up in the CapEx guide, can you talk about how much capacity that you have? I mean, it seems like service in the last couple of weeks has gotten a little bit slower. Maybe that's from volume growth. Obviously, there's a lot going on out there from the demand perspective. So maybe you can just talk about big picture how much capacity you have to growth and sort of where you'd be deploying the capital that you're raising?

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.
A

Yeah, I'll start off and we'll tag team this answer. But look, we have capacity and I think even in this quarter, you'll see that we've taken on volume. We haven't really added a ton of train starts. A lot of this is through filling out existing trains. So it hasn't really had too big of an impact. That said, there are – there have been some more asset-intensive volume that's come on the unit train side. So, certainly those are areas where when you have more bulk traffic and more unit traffic that you've got to move that's where you end up feeling a little bit more of the pinch on the capacity side, but otherwise in our regularly scheduled merchandise product and our intermodal products, we've got capacity. But Brian, why don't you jump in with your views?

Brian Barr
Chief Operating Officer, Norfolk Southern Corp.
A

Yeah. So I mean, we're walking through the service there regularly and as I mentioned here earlier in the call with some of the operational changes we make, we're creating capacity with train consolidations, with removing touches on existing cars. As we mentioned, we are hiring here at some strategic locations that'll build resiliency into the plan. And we're on path with it in a few strategic locations and also with the locomotives, we have 420 that are in storage currently that are there for capability as volume increases as we grow. We've already been able to take on 3% more shipments this quarter and absorb that into the existing network. Although we're 4% bigger on length and weight, we still have a lot of capacity there on existing service.

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.
A

Okay. Thank you very much.

Operator: Next question comes from Brian Ossenbeck at JPMorgan Chase. Please go ahead, Brian.

Brian P. Ossenbeck
Analyst, JPMorgan Securities LLC
Q

Hey. Good morning. Thanks for taking the question. Just a quick follow-up for Brian and a broader one about resourcing. Brian, we're hearing a lot about dray driver challenges and availability and that's not necessarily something you guys cover directly or manage directly, but it's clearly part of the whole supply chain on the intermodal side. So wanted to see if there's anything along those lines, if you're feeling any constraints or if there's any opportunities to work with your channel partners in there as this volume growth continues to be pretty significant, especially the conversion?

And then, Mark, maybe just big picture is anything from a technology perspective or maybe even a work contract negotiating perspective to get more flexibility to help out with some of that variability of hiring with that long lead time item, which is obviously labor? Thank you.

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Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

Thanks, Brian. Yeah, I'll start here and Brian can kick in as well. Look, we're investing at the terminal level to make sure that our drayage community is as fluid and as efficient as it possibly can be. They're a key component to what we do. Specifically, not only in markets where they're doing end deliveries, but we also do a lot of cross-towns in the current environment and they're really important there too. Is there stress? Yes, there's stress across the entire supply chain, particularly for trucks and drivers. And I think that that's really been a part of the story here that people have talked about but not sure how much attention that they've paid to it, but the supply of drivers and the capability there has been drawn down some. But we're investing to make sure that the drivers that come to our terminals are being efficient with their time and that we are delivering value for them too. And, Brian, I don't know if you want to talk about specific investments or where we're doing that, but I know you're looking at a number of places across the network.

Brian Barr
Chief Operating Officer, Norfolk Southern Corp.

A

Yeah, so with growth – I mean, we have locations right now that are hitting lift records here currently. So, we have five locations that are going to hit a quarterly lift record within the intermodal ramps. We have 10 that'll hit annual. But we've been doing ongoing expansions and improvements in several of the terminals with the growth mindset and with increasing our capability, and we're hitting a few locations there and Chicago, Harrisburg are a few key corridors specifically.

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

Yeah – yeah and I think technology in general is something we're investing in. I think in the intermodal terminals we're looking at a fair amount of autonomy opportunities there that will help us with moving boxes and scanning and hustling and things like that. So, those will help with our terminal fluidity, but on top of it, Brian, you're doing a lot of investments in some of the yards, automating switches and doing some other things that will help alleviate some of the manual work requirements that we have, correct?

Brian Barr
Chief Operating Officer, Norfolk Southern Corp.

A

Correct.

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

So those are – Jason, do you want to add anything else on some of the – where the CapEx is, the incremental CapEx?

Jason A. Zampi
Chief Financial Officer & Executive Vice President, Norfolk Southern Corp.

A

Yeah, I mean, our priorities with respect to capital allocation has always been first and foremost to invest in the business and no change there. I think what you're really seeing here in this increase that we talked about the end of the year is really preparing for growth and that's really important. A lot of this takes some time to get in the ground or to purchase these assets. So, it's important to get ahead of that. The only other thing I would just add from a technology perspective is really what we've done on the portals and the benefits that we get out of that from efficiency and safety. So, I think that's another key thing that's been important for us.

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Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

It sure has been. And I think the key thing here is when you look at our accident rates, they have been consistently declining for three years. And we are really at the envy of the industry levels of accidents. And that just means more fluidity on line of road, which means less resources required. When you have breakdowns, when you have accidents, it really congests you, you need a lot more human resources to move things, it creates a lot more recruits. We are more fluid because we are better on line of road thanks to the portal investments we've made. So, let's move on to the next question.

Operator: Which comes from Bascome Majors at Stephens. Please go ahead, Bascome.

Bascome Majors
Analyst, Stephens, Inc.

Q

Thanks for taking my questions. When you originally framed the cost to run the business this time last year, I think that was a helpful framework and it certainly played out where you've had the capacity to grow and largely maintain service levels and the network. And I appreciate the comments earlier about the buffer and how you're managing through that and capacity. As we look to next year, it looks like 4Q the cost guidance is call it $2.4 billion. There's obviously lot of volume variability to serve the business into next year, but can you talk through the inflationary components and sort of the expectations that you're setting so we can get our own expectations for what that number looks like for 2027 versus 2026? Thank you.

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

Thanks a lot, Bascome. Yeah, so, I'll let Jason talk to that. I mean, we're not going to give 2027 guidance now, but certainly inflation has been a challenge for this industry in the past couple few years. Obviously, the labor contracts are at the root of it. But on top of it, all the inflation we've seen elsewhere in materials and vendor costs have really hit us. We offset as much of that as we can with productivity and we've had a couple great years with productivity and we'll continue to drive cost out of the business there. But Jason, do you have some first looks at inflation?

Jason A. Zampi
Chief Financial Officer & Executive Vice President, Norfolk Southern Corp.

A

Yeah, I think just from a kind of early perspective here, I mean, we signed wage agreements with the unions year and a half, two years ago now and so we have a good line of sight to that. So, we've got a 3.75% increase that just went into effect in July and another 3.5% next July. So, we know what the headwinds are there from a wage rate perspective. The other two things I'd call out and I'm putting fuel aside here obviously as a bit of a wild card. But the other thing is health and welfare benefits. Those have been very significant, double digit percentage increases in that. And we see that continuing as we move into next year. And then the other thing that I would just call out is insurance. Our cost to receive insurance coverage continues to go up. And I don't see that abating at all as we move into next year. So, I think those are some big drivers that you should expect as we move into 2027.

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

And I'd imagine, Bascome, we'll do similar type of guide next year and give you a cost envelope. Okay, next question.

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Operator: Comes from Richa Harnain at Deutsche Bank. Please go ahead, Richa.

Richa Harnain
Analyst, Deutsche Bank Securities, Inc.

Q

Hey, thanks for the guys – the time guys. So, I wanted to ask maybe a more bigger picture one. One of the key strategic attractions of the merger is obviously the opportunity to convert more over-the-road freight to rail; however, we're seeing more and more evidence that conversion potential in western and transcontinental corridors maybe is more limited than in the east. Of course, that makes sense. But your largest IMC partner, for instance, reported a stark difference in growth for east versus transcon. So, given your strong eastern franchise, how are you thinking about that difference and is it primarily structural given like shorter haul lanes being more competitive or does it largely just reflect the absence of maybe a sufficiently reliable and competitive rail service offering in transcon, which the proposed merger is trying to fix? I'm just trying to understand like what the structural sort of impediments are and how those get corrected from this merger?

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

Okay. Thanks, Richa. Why don't – Ed, why don't you take a shot at that, please?

Claude E. Elkins
Chief Commercial Officer & Executive Vice President, Norfolk Southern Corp.

A

Sure. Yeah, look, we think that there are opportunities to convert truckload business to the railroad no matter what the length of the haul, whether it's long or short. Certainly, the transcon lanes have had more attention paid to them over the past 30 years with a variety of services, and so the penetration in those lanes is naturally higher than it is in the, what I would call the east, which is for us east of Mississippi. The results that you're seeing from a variety of our partners, I think, reflect that reality that there's a tremendous amount of opportunity in the east to convert truckload to the railroad with the right kind of service and value. And I think we've become pretty good at that over time. We can always get better.

What I think the merger is going to help us do is increase our penetration opportunity in those transcon lanes, because we will have a better service and it will be a permanent change. It will not be an interline product. It will be a local product that is durable across not only months but years and decades. And so it is a – we view that as a perpetual opportunity for a share shift in those transcon lanes. And at the same time, the new company will have what I would consider to be a prime opportunity to convert a lot of the freight that still rides the highway in the east that would much rather save money, save fuel and deliver value to their customers using the intermodal.

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

Thank you. Next question.

Operator: Next question comes from Brandon Oglenski at Barclays. Please go ahead, Brandon.

Eric Morgan
Analyst, Barclays Capital, Inc.

Q

Hey. Good morning. This is Eric Morgan on for Brandon. Thanks for taking the question. I guess, I'll just ask one on the coal outlook. It turned positive. I think you mentioned driven by export, but also the favorable conditions in

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utility business. So can you just help square that with the relatively low natural gas prices and how much line of sight you'd say you have on that business and just any thoughts on how that shakes out for RPU? Appreciate it.

Claude E. Elkins
Chief Commercial Officer & Executive Vice President, Norfolk Southern Corp.
A

Yeah, sure. Sure. The – on the domestic side, we saw our plants burn exceed the amount of tons that we delivered to them really for most of the year here. So we think that there's some replenishment that's going to happen. I agree with you that the low natural gas prices are going to be a strong competitor, but we do think that there'll be some restocking going on for the remainder of the year and who knows, maybe in the next year, but we'll see about that. On the export side, it's a pretty favorable environment when I think about pricing.

You look at the third quarter, US low vol ended up somewhere around [ph] $200. And API2 was at $126 (00:46:02). And right now we're at – or recently I should say, we're at [ph] $210 and $145 (00:46:10). So those are constructive levels we think going into the fourth quarter. So yeah, our outlook is I would call it level. We're trying to be realistic with what the market can deliver on the utility side, but we think there's still some opportunity, particularly with the good partners that we have in the east here to deliver export tons.

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.
A

Thank you.

Operator: Next question comes from David Vernon at Bernstein. Please go ahead, David.

David Vernon
Analyst, Bernstein Institutional Services LLC
Q

Hey, good morning, guys. So, Ed, I wanted to talk a little bit about the intermodal. When you think about the trials and tribulations of the last 12 months, obviously losing some volume on the repositioning of some J.B. Hunt volume. How should we be thinking about the volume ex that headwind? And then as you think about your ability to not only touch on price next year, but also to think about new service introductions, things like that, what are you thinking about on the product side? I know you're in this sort of merger waiting game, but you guys doing more work to think about where you can expand the network or add some services that could kind of tap into this elevated highway [ph] truck (00:47:25) market? Thanks.

Claude E. Elkins
Chief Commercial Officer & Executive Vice President, Norfolk Southern Corp.
A

Well, yeah, we are, of course. And there's an old saying my dad used, which is you make hay while the sun shines. And so we're exploring every opportunity to deliver new value to our customers and we'll see what emerges from that over the next few weeks and months, but I'm very bullish on that. When I think about our capability and what we've done, think about the third quarter, we had the best domestic non-premium third quarter in history for volume and that is a – that's saying something. Given where we were a year ago, right?

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.
A

And the business we had a year ago.

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Claude E. Elkins
Chief Commercial Officer & Executive Vice President, Norfolk Southern Corp.

A

And the business we had a year ago. We had a really good quarter on the truckload side of our business and I'm very, very encouraged by that in a couple ways. One, we have great partners that are continuing to drive conversion out there on the Street, which is incredibly important. And number two, we have a network that can deliver value very ably for those customers. And I'm going to speak right past you and talk to our customer base and say, I really want everyone to be confident that we can continue to deliver that value. We've got the capability, we've got capacity and we're building more capacity and I think we're in a really good shape there. Thanks for the question.

Operator: Next question comes from Tom Wadewitz at UBS. Please go ahead, Tom.

Thomas Wadewitz
Analyst, UBS Securities LLC

Q

Yeah. Good morning. So, wanted to ask a bit, I guess, you'll see this, but it's merger related. I think one of your primary competitor has pointed out that you have a really attractive intermodal network and access in Eastern Pennsylvania and I think they'd like to get some access to some of it. How do you think about the capacity utilization of Harrisburg, Allentown, some of those key intermodal hubs and just the kind of operational complexity of potentially having trackage rights or something where another railroad would get access to it and not obviously that you can do that, but just kind of at high level is that something that's operationally doable and where do you sit in terms of capacity of eastern intermodal network that I think kind of fairly presented is a nice advantage for you.

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

Look, I mean, we have a very attractive franchise in Eastern Pennsylvania, no doubt the envy of others. And no surprise people are going to take moonshots to ask for access for it. Heck, I'd love to have access to Bone Valley in Florida, and I'd love to have access to South Dakota. There's all these other areas on the network everyone wants access to, but guess what, the tracks on the ground, we're going to live with our – we're going to defend our franchise and we're going to defend our network and we're going to trust that the STB will view things like this through sober eyes and pretty – pretty firmly rejected like they rejected a lot of the asks during the CPKC – every ask during the CPKC merger application. So, it's not really worth answering the rest of that question Tom, because it's not going to happen. We're not giving up that franchise. I can't see a scenario where the STB would even entertain it. That's it. Thank you.

Operator: Next question comes from Ari Rosa at Citigroup. Please go ahead, Ari.

Ariel Rosa
Analyst, Citigroup Global Markets, Inc.

Q

Hey. Good morning. So it sounds like you've detailed an attractive opportunity set here from a volume standpoint, but I was hoping you could talk about kind of how you see the attractiveness of the business that's available and just how discerning you have to be in terms of freight selectivity and expectations around that business kind of sticking around? I understand there's obviously a service component on your end, but as we think about just kind of apples to apples is that business that you want and how do you have to price that appropriately to ensure you get attractive returns? Thanks.

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Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

Sure. Thanks for the question. We have a team of folks that are out on the Street every day, including right now, looking for new business. And that team is very well trained and really capable smart folks. They're going to bring opportunities back that are attractive and accretive to the business. And that's the first mission they have. And I'm very, very confident that they're doing a great job of that and they're going to continue to. You think about what business sticks around – or here's the business that will stick around no matter what happens and that is if we can deliver value in such a way that a customer can realize that value quickly and demonstrate that value for their customers, then we're going to be in great shape. And that means service, service, service and that's what we're focused on. It means capacity, capacity, capacity and that's what we're focused on. And I'm very confident that as we move forward, our portfolio is only going to get more attractive in the current environment. Thank you.

Operator: Next question comes from Walter Spracklin at RBC Capital Markets. Please go ahead, Walter.

James McGarragle
Analyst, RBC Capital Markets

Q

Hey, this is James McGarragle on for Walter this morning. I just wanted to ask on the volume outlook. Last quarter, you flagged an update on your industrial customer investment activity. You mentioned this normalized a bit after a strong H1, so I guess, was that a surprise to you that that normalized and any specific numbers you can give us surrounding that opportunity just to help us think about the opportunity in terms of carload growth there into next year?

Claude E. Elkins
Chief Commercial Officer & Executive Vice President, Norfolk Southern Corp.

A

Yeah. Thanks for the question. We have over 50 industrial products that have moved into that design and construction phase, and that's the sort of the demarcation line, we think, between a opportunity that is theoretical versus one that's actually going to be executed. So we're encouraged by that. Yes, the first half of the year, we saw some acceleration and actually outperformance of that pipeline and it has not decelerated, but receded to the what I would call a normalized run rate and that's okay. A normalized run rate is very sustainable for us over a long period of time. Probably the more surprising thing was the acceleration in the first half. And so I feel like we're on track. We always have a budget every year for what we think is going to happen and we're back sort of on that run right now and that's a very healthy thing. And frankly very encouraging. In terms of carloads, really can't define that here, but we're encouraged.

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

A

Okay. Thank you.

Operator: This time we have no other questions registered. I would like to turn the conference over to Mark George.

Mark R. George
President, Chief Executive Officer & Director, Norfolk Southern Corp.

Okay. Thank you operator and thank you everybody for participating in the call. Look, I think I'll just wrap by saying, look, we've put an application forward for a merger. It's been – it's more thorough than any merger

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proposal ever presented by an American railroad, and it includes a first ever use of a complete dataset as opposed to sampled data. We now have greater visibility to the board's timeline. And we believe that the case for our merger is going to become clearer as the evidentiary record continues to build, and it is no doubt in my mind that we are very much in the public interest with this merger application.

A unified network's going to provide customers with more opportunities to grow and compete, placing new markets within reach as Ed talked about, at a lower cost. And that enhances affordability for the US consumer and the broader economy. I think second, reducing handoffs, improving network fluidity and delivering more consistent service outcome. That's what's going to matter to the STB when they look at this, that service reliability, resilience and broader supply chain performance and a more fluid network also means it's going to help the communities. We'll have fewer interchanges, fewer stoppages and that's going to translate into fewer block crossings. That's in the public interest, for sure.

The freight conversion from the highway goes without saying. We're going to save on overall diesel fuel consumption as a nation, because we're up to 5 times more fuel efficient than trucks. On top of that, we're going to make the highways safer by having fewer trucks on it. When you remove 3.6 billion truck miles, that translates to about 1,750 fewer accidents and injuries, which you can do math and estimate. That's about 65 fewer fatalities. Not to mention for our employees being part of a larger company we are going to have more opportunities for employees and we're actually going to start growing again, well-paid [indiscernible] (00:56:52) jobs.

So we're excited about the progress we're making on the merger application and the STB has put out this timeline. And we'll move on and continue to focus on running the business in the meantime. So thank you all for participating and take care.

Operator: Thank you, sir. Ladies and gentlemen, this does indeed conclude your conference call for today. Once again, thank you for attending and at this time, we ask that you please disconnect your lines.

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EXHIBIT 3

S&P Global
Market Intelligence

J.B. Hunt Transport Services, Inc.

NasdaqGS:JBHT

Company Conference Presentation

Tuesday, December 2, 2025 6:00 PM GMT

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Call Participants

EXECUTIVES

A. Brad Delco
EVP of Finance & Chief Financial Officer

Darren P. Field
Executive VP & President of Intermodal

Shelley Simpson
President, CEO & Director

Unknown Executive

ANALYSTS

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

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Presentation

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

All right. We're going to go ahead and get started with the next presentation. It is a real pleasure to have J.B. Hunt at our conference this year. J.B. Hunt is an important transportation company, and I think I had great insights across number of different markets. So we have Shelley Simpson, the CFO; Brad Delco, the CFO; and Darren Field, the President of Intermodal. And so we welcome you all, and look forward to the discussion.
Maybe just to get things kicked off, I think we're getting updates, different perspectives on the freight market. I wanted to get your kind of take on how things are trending. I guess I'll maybe lay out a couple of data points. We had Werner was here earlier today, they seemed constructive on peak season, maybe seeing a little bit better than they expected. They also said they're reducing fleet count. So working on the capacity side in the one-way business. And so that's one data point. I think some of the LTL tonnage updates have been mixed but not necessarily pointing to strength in November. So it seems like it's still a generally soft freight backdrop, but what are your thoughts? What are you seeing at J.B. Hunt?

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Question and Answer

Shelley Simpson
President, CEO & Director

As I think about where we're at from an overall freight perspective, we talked about in our third quarter earnings call that we believe we would have a peak season and conversations with our customers. the peak season would materialize and really, it happened about like what we thought. And so not a lot of surprise there. We've seen that kind of across our business, in general, it's not the biggest peak we've seen. It's not the worst peak we've seen. But one good thing, I think, is that our customers have really moved out of that COVID era where they had a hard time forecasting what demand would look like. They're really a lot more on target to that. So feel pretty good from that perspective.

The other comments that we've made is that we see a few pockets of tightness in mostly in the brokerage space, but it's not overall. And I don't know what word you used to describe the market, but I would say extremely challenging market. It's just the demand is good, but the inflation side is significant and supply, there's still plenty of supply out there. So it's a challenging freight market.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Right. Okay. What's the customer feedback during peak season? I mean, do you get feedback on kind of Black Friday sales, kind of how the consumer is behaving relative to what some of your big customers might have expected?

Shelley Simpson
President, CEO & Director

Well, we came here yesterday. So I haven't had customer feedback since yesterday, and we just got Black Friday data points. They should generally be a positive I would say, from a replenishment perspective, but I would say too early to really comment on what customers are responding with. Darren, unless you've heard something different?

Darren P. Field
Executive VP & President of Intermodal

No. I mean largely, just customers have been as close to being correct about their forecast and their expectations as what we've seen in a very long time. So really, I don't think there have been surprises. So no, I don't think we have feedback that Black Friday sales were significantly going to change the way their transportation demands would work out through the end of the year. So really continue to get feedback from customers that it's kind of steady as she goes and their forecast hasn't changed from what it was before Black Friday. So to me, it's kind of, I guess, I would love to hear that they were going to need more capacity, but at least we're also not hearing that they need less.

Shelley Simpson
President, CEO & Director

And I also think we were a little bit of a standout when we talked about peak during the third quarter call. So I don't know that a lot of people were talking about experiencing or claiming for a peak. So I think we were a little bit different. And so that might be why you're hearing other updates and maybe some surprises there. I think our customers really were pretty much in line with what they told us.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Okay. So you think you were maybe a little more optimistic in your commentary on peak on the 3Q?

A. Brad Delco
EVP of Finance & Chief Financial Officer

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I think that quote was from [Spencer Frazier] was that we're not expecting Christmas to be canceled. Yes. We think that, that has largely played out as expected.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Okay. Good. What about -- across the businesses? Are there kind of be noticeable differences, something stronger, weaker, dedicated intermodal truck brokerage?

Shelley Simpson
President, CEO & Director

I would say across all five businesses, just from a near-term perspective, everyone's lifting from peak, maybe with the exception of what we're seeing on the big and bulky side in Final Mile. That is still a very challenging market in general, but the rest -- all of our other four business units and even in parts of our Final Mile Services is really seeing somewhat of a lift just to peak.

A. Brad Delco
EVP of Finance & Chief Financial Officer

Tom, when I think you look across our portfolio, and I'm going to maybe try to walk through all of them except for intermodal, I'll let Darren comment. What are we seeing in ICS? I think generally, you're seeing more activity volume-wise in ICS. And you're seeing that come with what you would anticipate in a more peaky environment, which is some margin compression. And we talked about that on our third quarter call.

That is a good sign, generally speaking. I mean, supply and demand is -- Shelley said, there's still plenty of supply there is. We've talked about seeing pockets of tightness. We don't think it's tight across the entire network. But to level set those expectations, we should be seeing pockets of tightness. We're in peak season. And so Hunt is always going to be pretty conservative with our messaging, and we think that's a fair way of describing what we're seeing in the market. But that's sort of what is in ICS in JBT. And JBT doesn't get a lot of attention, but we've been growing volumes mid-teens or well healthy double digits the last couple of quarters.

While I think overall truck volumes have been under pressure, really focus on operational excellence there. I think they're executing extremely well. But I do think that we are seeing a lot more opportunities come up in mini bids, and that's typically a sign that a customer may not be getting the service or getting capacity in a way or in a manner that they need or accustomed to. And so that's also maybe a small sign that you're seeing some slight shifts or pockets of changes.

In Dedicated, I do think the pipeline backlog of opportunities remains healthy. We are seeing newer names come to us and get into the pipeline, and we're seeing I think still a very healthy cadence of us closing deals that is within sort of our annual guidance of, hey, we want to sell between 1,000 and 1,200 trucks of new business a year. that should generally net us about 800 to 1,000 trucks of net fleet growth. And I think we -- you could look at the cadence of the updates we've been giving each quarter. We're certainly on track to kind of hit the numbers that we talked about on a regular basis. I do think those deals are still taking a little bit longer to get the ink on the paper. But I do -- I would say that team is executing extremely well on getting our startups to a point of profitability faster than what we have seen in maybe more historical or normal times.

And so I think Shelley commented on Final Mile, big and bulky products going into new homes. Housing activity, I think, is still relatively weak. We really would love to see more activity in the housing market. I think that would be a big catalyst for demand for transportation. And then Darren, to the extent you want to add anything on Intermodal.

Darren P. Field
Executive VP & President of Intermodal

I would just want to say Intermodal is the place where dialogue with the customers around how long the duration of this freight recession or depressed truckload pricing market has gone on, continues to maybe

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even surprise the customers as much, if not more, than the carriers and the capacity providers. And so we continue to find real strong opportunities to grow our Eastern Network business, where customers are trying to be out in front of the potential for truckload prices to climb in whatever future point that finally does occur.

I think our customers are growing a little bit more and more nervous about what will capacity and prices do in whatever version of future you want to look for. And so converting to Intermodal has been one of the actions they can take to mitigate and kind of hedge against that.

And then the service we provide has been really, really strong and excellent as good a service as we've ever provided in my whole career and so feel like that's been a strong part of retaining our Intermodal highway to rail conversion that has been effective in our Eastern network.

A. Brad Delco
EVP of Finance & Chief Financial Officer

And Tom, if I could just add on to what Darren said, I mean, I think it's a really important point. We've seen really consistent growth, particularly in our Eastern network. And when we think about where we are in this cycle, obviously, truck rates are very depressed. You generally want higher truck rates and you want higher fuel prices as a catalyst to convert more highway freight to the railroads. We've been consistently complementary of the service we're getting from our primary rail providers. We think that's creating value for our customers.

Obviously, we've been very focused on operational excellence, lowering our cost to serve. But this is a market which as depressed as truck rates are today, we've seen healthy mid-single in some of the last couple of quarters, double-digit volume growth in the Eastern network, and that is where we compete most directly with truck in Intermodal. And so I think it is a true testament to the service. I think it's a true testament to -- well, the collective service product that both J.B. Hunt and the rail providers are performing too.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

On the topic of Intermodal, how do you think about there is some business that shifted from Norfolk to CSX, right? And I don't know if that was kind of more your discretion or [BNs] or mix of both. But do you tend to be indifferent, I think, like, Brad, like you were saying, all of your rail service providers are doing well. So how do we think about the preference to J.B. Hunt, impact J.B. Hunt. I mean you've got great customer relationships, you probably keep the business regardless. But I don't think it's very clear to investors of is this good bad and different.

Unknown Executive

Well, let me first start by -- we have two Eastern rail providers for a reason. We like to have both of CSX and Norfolk Southern, they both do things really, really well, and they both do things that the other one doesn't do. And so that gives us a lot of strength in our network to have access to both.

You referenced the share shift. Look, BNSF had been discussing plans to change the way they connect for Charlotte and Jacksonville for some time. That discussion was going on well before there was any kind of a merger discussion, and that was kind of starting and stopping. And then certainly, I think the merger was the intent to try to merge was announced at the end of July, and that sped things up and BNSF made a decision for the routes from Los Angeles to Charlotte and Jacksonville to change the way they connect and connect with CSX.

We certainly weren't a cheer leader to do that. We weren't also necessarily saying absolutely not. We need to be careful. We need to be good partners with BNSF, they weren't going about that change purely because of a potential for a merger. They were going about that change for some efficiency work that they were trying to accomplish. And just expanding what they did with CSX, I think they felt like premerger that was a good opportunity.

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Now I also want to be loud and clear that transition occurred early in September. That is the only transition of share that has moved J.B. Hunt volume. We don't have any intent. We're not out trying to work on transitioning market share from Norfolk Southern to CSX. That's not part of our daily effort, and we don't have anything in the works. I think there are a number of announcements that seem to be coming out from certainly BNSF and CSX over ways that they can work together.

To the extent we have business that's moving on both BNSF and CSX and the new service could complement or provide an opportunity for us to grow. We'd love to do that, but we're not actively looking for ways to shift business from one railroad to another. We are actively looking forward to CSX's opening of Howard Street Tunnel for double-stack clearance into the Northeast and can see that as an opportunity for us to go attack highway to rail conversion and look for ways to grow. And so that's where our focus is at. We maintain really strong relationships with all of our rail providers and to the extent we can help them achieve goals in growing and share with them our customers' feedback. That's where our focus is at.

A. Brad Delco
EVP of Finance & Chief Financial Officer

Tom, I think the one thing that's important J.B. Hunt's goal is not to take -- or move share for one to the other. J.B. Hunt's goal is to grow the market and take share from the highway. And so I think that's what we work with the rail providers on, hey, how do we take more traffic off the roads. How do we improve safety on the road, how do we reduce congestion or roads and how do we bring more volume to your network and do so by working with them on OD payers and transit times and all of those things. And we've said this many times, we bid on $120 billion worth of freight a year. We have a lot of visibility to where freight originates and where it is destined to and we use that information to help inform ourselves as well as our rail providers from where we think there are opportunities for us to grow together.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

So how -- is there any way you can frame Darren, like the comment on Howard Street Tunnel. Like if you just looked at the Eastern network alone, is this like 10% of lanes in the East that opens a new opportunity for growth for J.B. Hunt? Is it like I don't have a good sense of how meaningful of an opportunity.

Darren P. Field
Executive VP & President of Intermodal

Okay. I don't know how to frame it as a percentage. The one thing I would say is if we look at our Eastern network lanes that we do the heaviest lanes are Chicago to call it Harrisburg, New Jersey, Chicago, Atlanta and then Atlanta back to New Jersey. Those three corridors are really a heavy chunk of what happens in the Eastern network. And up until the Howard Street Tunnel opened, CSX wasn't able to offer Atlanta to New Jersey, Atlanta to Philadelphia service. And so we look forward to that opportunity and certainly can understand the value in additional capacity in one of the three largest lanes that we operate and then they can certainly gain even better opportunities down into Florida and I think their route may even go all the way up into Massachusetts, and that's a place where the Norfolk Southern route actually doesn't go.

So we just look forward to having optionality to have competition and know that there's additional capacity in the lane and feel like that will be a good opportunity for us to create value for our customers and grow highway to rail conversion.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Right. So it's not necessarily a new market, but you've got a new player that can participate well so that creates more opportunity...

Darren P. Field
Executive VP & President of Intermodal

With the exception of going up beyond to Massachusetts that could really be a opportunity you bet.

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Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Okay. You've talked about the cost program. And I think that's been something that you've worked on costs through the downturn as a strong management team would do, right? But I think this is a little more focused, a $100 million program. Can you give us some thoughts about how big of a change is for J.B. Hunt. I mean I think J.B. Hunt, think of historically is very growth driven. That's very much the culture, right? And a lot of success with that. This is -- seems like a little different component you're adding. So maybe just if you could offer some thoughts on that program? Is there a lot more to go beyond that? How do we think about it?

Shelley Simpson
President, CEO & Director

Well let me just start, and Brad, I'll let you -- we are still a growth company. We're a disciplined growth company. And I think -- for us, as we have looked at the last 3.5 years, growth has been very difficult because of the current environment.

So we -- Brad says this a lot. We really know how to grow. I don't know of any company that knows how to kind of shrink or be smaller than what they were. So it's always a challenging environment for us. We've been working on costs really since the recession hit 3.5 years ago. We did all the things. I think one of the steps that we took that I think is really going to pay long-term dividends for our shareholders is we didn't do any mass layoffs. But we did a great job managing through attrition and through performance management. We reduced our workforce by 15%. So we went about it a little bit different way, but we're actually able to achieve it. I think that's created a level of safety for our people to understand that when you bring new ideas to us, even if those new ideas might create more efficiency in your work and could eliminate part of your team, there's still going to be a really great place at J.B. Hunt.

And so we've been working on costs. I think we made a pretty big change there at the beginning of this year, really after tariffs got put in place, our customers started telling us, we don't know what we're going to do. Some are putting pauses on their shipments. It was like, "Oh, no, we're going to go through another really difficult year". We really put in motion less, and we need to be offensive, and we can't wait on something to turn. We've got to lower our cost to serve. That will allow us to compete more in the market. and really grow with our customers and return margin back to our shareholders. And so that really second the mind of our people. What does that mean and how do we need to do that? And so Brad, maybe I'll let you talk about how we attacked both that and business transformation.

A. Brad Delco
EVP of Finance & Chief Financial Officer

Yes. So there's really been two elements to the initiatives we launched earlier this year that Shelley was referencing. Lowering our cost to serve. I mean we have -- we really scrutinized a lot of the ideas that in terms of the process where our executives went around to different areas of the business. thought more instead of vertically thought more horizontally across the org how are these areas impacting us from a cost perspective, where our opportunities the scrutiny really came on, are we identifying these cost opportunities as something that's structural or temporary? What we really targeted and think of all the costs that hit our P&L what we've identified is $100 million of structural cost. And we said that these aren't volume dependent. These are costs we think, regardless of the environment we're in. We think we can permanently remove from the business. That leaves plenty of opportunity for a lot of other productivity and volume-driven efficiencies that can come that are maybe outside of what we've identified as structural.

And the second part of that process Shelley alluded to as business transformation. So where can we look at the design of a process from origin to destination. And how do we think about redefining that process? Where can we introduce technology maybe to improve efficiencies. But the distinction between lowering our cost to serve on the structural side versus this business transformation is there is an element of scoped engineering and technology work where there is some investment that we have to make to

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go achieve some of these benefits, and that has to go through a fairly rigorous underwriting process internally to generate the returns that would be satisfactory for our hurdle rate.

And so we have -- I would say we've done a really good job, obviously, evidenced by Q3. I actually think evidence in Q2, I think we are well on our way on this lower cost our cost to serve journey in the second quarter. I think we've proven we've done a good job out of the gate on the cost side. I think the opportunities on kind of the forward look is how does some of these business processes being reimagined with the benefit of technology, automation, where do those opportunities come to fruition and help us drive efficiency and put us in a good spot for the eventual recovery in the freight cycle, which it's a matter of when, not if, right, Tom? We been saying that for how many years?

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

That's right. It's coming soon.

Unknown Executive

We've been saying that for how many years.

Shelley Simpson
President, CEO & Director

Which is exactly why we really set an offensive lower cost to serve really grow a math of our customers. But I think the other thing is we've identified the $100 million that we shared, our internal targets are much greater than that. And so we know that we still have inflation that we're trying to offset. And all of those things, I think we came out of the gate pretty strong in third quarter, but a lot more work to do.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

So how do I think about the way that could flow through the P&L? I think when we look at the numbers 2Q and then even more so in 3Q, we saw a significant improvement in purchase transportation. So that seemed to be the bigger impact, I know we don't have full visibility to how the numbers show up in the categories. But -- is that going to remain a place where you have the bigger impact? Or you think it broadens out to show up in other comp and benefits or other lines in the P&L?

A. Brad Delco
EVP of Finance & Chief Financial Officer

Well, I think you're probably referencing some of the segmented information, maybe making reference more to Intermodal with that question. Is that fair?

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Yes.

A. Brad Delco
EVP of Finance & Chief Financial Officer

I think the one thing that's largely missed, and Darren, you may want to address this, I mean we break down the P&L by segment, but it really doesn't necessarily give you a lot of insight into what I'd consider to be our transcontinental network versus our Easter network. And so when you've seen as much of a shift in the growth in our Eastern network and I think our volumes were down 6% in transcon.

PT certainly makes up a lot larger percentage of our overall cost structure in transcon than it would in local East. And so what I would tell you is I think what you would see is that there was really great cost work across all line items on the P&L. I think that maybe some of that mix shift between transcon and Eastern Network probably makes that a little bit less visible in light of how much of that mix shift has played out in the last 2 quarters.

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Darren P. Field
Executive VP & President of Intermodal

Certainly, that's an area that would show up where we've worked intentionally on our balance. And that wasn't necessarily part of the $100 million cost effort that we talked about on the Q2 earnings call. So as we came into the year, we really wanted to improve the way we balance the equipment. And so when I think about while we we're effective at getting price improvements in our headhaul markets. We also had a reduction in how many empties we were moving and really feel good about the direction we're going there.

And then beyond that, we've also -- that PTE line in the Intermodal P&L that you can see. It's inclusive of fuel. It's inclusive of the purchase transportation expense associated with outsourced dray is also in that line. So there's a lot of moving pieces in there.

That's not where I would focus my attention. We're going to certainly be working on driver productivity, productivity of our assets, how do we drive better tractor productivity on the dray fleet. Those are how do we drive out empty miles in the drayage system. Those are the places that our cost initiatives are beginning to really show up.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

So the focus on kind of price on the head haul lane and utilization on backhaul was not a part of that $100 million program. That was separate improvement.

Darren P. Field
Executive VP & President of Intermodal

That's right. I mean every...

A. Brad Delco
EVP of Finance & Chief Financial Officer

Fall into the bucket of volume dependent, right?

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

SP1 Yes. So how much of the $100 million run rate did you get in 3Q? Were you at the kind of full run rate? Or how far?

A. Brad Delco
EVP of Finance & Chief Financial Officer

What we said publicly is greater than $20 million. So on an annualized basis, $80 million of $100 million, but as Shelley just alluded to. Obviously, Tom, you know how long I've been around the transportation sector and even in a seat similar to yours at various point in my career. I've heard a lot of cost initiatives being discussed by management teams before and quarter after quarter don't necessarily see the proof in the pudding.

I think when J.B. Hunt says something and we say this over and we have a say-do culture. When we say something, we do it. when we came out to publicly announce a $100 million cost initiative, we wanted to make sure we weren't just telling people it that you could see it in our performance and in our results. And again, we're 1 quarter in. I think we did a really good job of executing on the cost initiative. So sure, we're 80% of -- if we annualize everything we did in Q3, we would be 80% done with our $100 million cost initiative. But like as Shelley said, our internal target is something that's a lot bigger than that.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

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So it's -- even though you're 80% there on the piece you identified, there's still some nice runway left to keep building as you go in '26.

A. Brad Delco
EVP of Finance & Chief Financial Officer

Yes.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Okay. Great. How do you think about freight outlook for '26 and kind of the algorithm for J.B. Hunt in '26? I mean, obviously, I know Brad is not going to bite on giving guidance.

Ever so I'm sure you won't for 2016 either. But just high level, are you optimistic that Intermodal volumes can grow? Are you optimistic you can get that 3% to 4% price, it's been elusive the last couple of years. Just high level, what do you think is maybe a base case or a more likely case.

A. Brad Delco
EVP of Finance & Chief Financial Officer

I'll take a shot at this and let Shelley or Darren cleaned it out. I'm optimistic that when you think about our organization, we've been very focused on operational excellence. And so regardless of what the market presents us and how we have to compete. I am confident that J.B. Hunt can deliver very strong value for our customers and win and whatever that market may be. That's in Intermodal, that's in dedicated, that's in highway, that's in Final Mile, I think across all of our portfolio of services, I think we offer very unique value that is very hard for a lot of our competition to replicate.

Now when I think about how are we set up really well regardless of what the environment looks like, I think we've just proven at least through 1 quarter, we've been really good at executing on or lower our cost to serve. I think we've seen really good operating leverage in the business. We saw a nice improvement, for example, in Intermodal volumes Q2 to Q3. There was a large percentage of that incremental business, that incremental revenue that fell to the bottom line because of the cost discipline. So to the extent that the environment presents us opportunities for growth, I think that will show very nicely on our profitability.

I think that operational torque or operational leverage will show well in an environment where we're recovering. I think financially, our leverage is still quite conservative, but we were even more conservative. So as we create value, obviously, that value is going to accrete to our shareholders, and we've reduced our share count by, I think, around 7.5% and over the last 24 months.

And so we're in a position where we're long in the tooth of this freight recession, even though were, I was not going to use that word anymore. We're generating very strong free cash flow. I think that we've been clear. We think our maintenance CapEx is somewhere around $700 million, and we're generating free cash flow well in excess of that. And we've been returning that to shareholders. We've maintained an investment grade credit rating we supported. I think our dividend has been growing for 21 consecutive years. And year-to-date, we bought back $728 million worth of stock.

So I don't see a lot of incremental capital needs for supporting our growth next year, other than what we might see in our dedicated business. And keep in mind, any capital we deploy there is success based. So we get typically long-term contracts. With fixed and variable pricing dynamics, annual price escalators like the ECI, CPI. And so when I go deploy capital in that business, I feel very comfortable with the ROIC that we underwrite these deals to as well as the tenure of that capital being tied up for 5 years. And certainly liking the risk-adjusted return we see on that capital being deployed.

So think we're set up really well financially. We're just -- we're not waiting for the market to turn. Clearly, we're trying to make our own story and make it a little bit unique. And so we've just added a little bit more torque to it with some of the cost initiatives we've been able to execute on.

Thomas Richard Wadewitz

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UBS Investment Bank, Research Division

So if I translate that a little bit, that sounds like even if your freight environment is flat, Hopefully, it's better, but if your freight activity is flat, J.B. Hunt got some idiosyncratic drivers and you've given us evidence of execution. So you could potentially improve margin, grow earnings, not saying a lot, but you could see some of that with the levers you control. Is that it's not real specific, but it's...

A. Brad Delco
EVP of Finance & Chief Financial Officer

I did a really good job of answering a guidance question like in a very long elaborate way without providing guidance. And then the follow-up question is to give the guidance. I feel confident that this team is set up to win regardless of what the environment is I just don't know what winning will look like in 2026, but I feel like we're set up well.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Okay. Kelly, what are your thoughts on -- you're close to customers, have worked with customers a long time. What do you -- how do you think customers are doing about next year, what's your sense of risk management? Will they be willing to pay you more price because you're a high-quality provider that can bring capacity to bear and regardless of regulatory pressure?

Shelley Simpson
President, CEO & Director

Yes. One thing we've really worked hard on over the last few years is operational excellence in both service to our customers and safety performance. And that takes time for that to really start to be recognized, from a safety perspective, we're in our third year of our best year. And so we had our best year in 2023, reducing our DOT preventable accidents for per million miles by 25%. We beat that in '24 and begin in 2025. So really doing a great job operationally, have the entire company focused on that, including the way we're compensated and so safety, a big critical component and part of that is because what's happening, one, it's good for business, but two, what's happening in the insurance market. So the best way for us to really control our cost is to reduce and eliminate accidents.

The second during this downturn has really been on how we focused on our customers. And so we can focus on getting offensive with our customers also making sure that when we're talking with them, they have the best service across the board. You heard Darren talk about. It's the best in his career, in Intermodal, I would tell you it's the best in the company for all five business units. So very focused in with our customers on how do we solve.

And I think you saw some separation start to occur for us in the third quarter. from a market share gain perspective. So we talked about in the market, the data we see that the market actually got worse as the quarter progressed. But actually, our volumes did not. And I think that's our operational excellence and really driving value for our customers that are helping us.

The other thing I think that Darren did a nice job of this year was taking rate increases, and those were very difficult. I think we were -- there's a lot of hard work for the little bit of price that we got. But I think our customers did a nice job helping us think through what could we do differently? Darren did some work around how could we take cost out of the system on some of the freight that you move. So I think that's been good. All that to say is we lead into leading into 2026.

I think our customers somewhat feel sorry for us because they get how long it's been, but I've never met a customer felt sorry enough to just sign over a rate increase without really good reasons for that. And so the market has to respond to that.

So I think our customers there's a little less uncertainty around tariffs. They're a little more settled there. So that's a good thing going into 2026. As we think about 2026, we were talking as a management team Monday, I mean the new tax laws will be in place, and there'll be refund checks. And to whatever extent that, that creates more demand in goods that could be better for our business. Retail sales were good.

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That could be better for our business. But it's going to be really hard to hear us say after 3.5 years that we think 2026 is going to be a really great year. I think things get a little bit better. And we're really planning on where we are today.

We're focused on operational excellence, lowering our cost to serve, so we can grow with our customers. If things get a little better from a demand perspective, that's going to drop to our bottom line because we're prefunded on growth. We have all the capacity that we need in Intermodal to serve our customers. So that will help us. And also, if it gets a little bit tighter from a regulation perspective, that's going to be helpful to us as well.

So really planning on this base case scenario. And if either one of those happen, that's just going to be a great benefit for us, but also for our customers.

Unknown Executive

And I think just for the benefit of the audience in the room as well as online. Our unwillingness to really get optimistic about 2026. We've tried to call it before, and we've been wrong. And so we're sort of out of the business of looking at the crystal ball and trying to read too much into it. But like I said, control what you can control, I think that with Shelley's message and execute. And I think at the end of the day, we're in a really good spot financially and how we can deliver value for customers.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Shelley, you mentioned regulatory factors. You want to give us your view on what's the kind of likely way that this plays out. I think when I talk about it with companies, brokerage, carriers whoever are like, well, enforcement is the key. There is evidence that there's some impact, but hard to say there's a broader-based impact so far. So what's your view about the likely path for this regulatory pressure on drivers questionable capacity?

Shelley Simpson
President, CEO & Director

I mean I don't think I have a different view. Enforcement is going to be key. We did write a white paper. It's available on our website. It just gives you the data for what it is. I think that's important that we educated our customers so that they understood what potential impacts could be coming so that they are prepared and ready. And again, we're going to be more cautious than not about how fast regulation will really take hold and how much that will be enforced. But certainly, that's up to 400,000 drivers that could be impacted I would say that's up to 2 years from now. And so we'll wait and see, again, planning on more of a base case.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

So you think your broader estimate is 400,000 drivers that could be impacted by the regulatory variety of regulatory initiatives.

Shelley Simpson
President, CEO & Director

Correct.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Okay. When we say enforcement is key, is that waste stations, roadside stops, what is -- I mean it's probably everything, but what are kind of the key elements that we should consider for...

Shelley Simpson
President, CEO & Director

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State by state. And so you do have to think about enforcement state by state, but think about anywhere that somebody could be placed out of service or double checked. And so that takes time. There is some evidence that there's work going on as we speak by state. But again, there's still a lot of capacity in the market. And so there needs to be a take out of some capacity and that be more rationalized or demand go up significantly. So there's still some room for that to really play out.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

How many states do you think are seriously focused on enforcement and how many states -- how big could that number get?

Shelley Simpson
President, CEO & Director

Well, I think all states I think all states will be focused on a level of enforcement. To what level, I don't know. But I mean, we've heard good evidence in several states. And I would say there's no real rhyme reason as to why the state has or hasn't done it. And so that gives me confidence that there'll be some level of enforcement.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Okay. We're just about at the end of time here, but is there anything I didn't ask about or you didn't talk about yet that you want to share?

A. Brad Delco
EVP of Finance & Chief Financial Officer

Yes, I think one -- by from guidance. Off on that.

Shelley Simpson
President, CEO & Director

One thing I would say is we've been -- Darren and I have been with the company 31 years. We've seen a lot of change and a lot of movement in our industry. But I think one thing we've done organizationally has really positioned our company for the long term and to be able to win like crazy. And so I looked at our financial performance in the third quarter, one of our best third quarter performance is really ever. And so I think it was our third best third quarter in operating income, and that's in this challenging of a market. I'm excited that we've already prefunded our growth, that we're prepared and ready. We're operationally excellent and that lowering our cost to serve is a big mantra inside our organization. And that really hits back home to our customers. So I'm more excited today than I have been about our future. Having said that, we'll wait and see what 2026 delivers for us.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Okay.

Unknown Executive

Tom, thanks for having us.

Thomas Richard Wadewitz
UBS Investment Bank, Research Division

Excellent. Thank you so much for joining us.

Shelley Simpson
President, CEO & Director
Thank you.

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EXHIBIT 4

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Technology | Deals

Union Pacific's Slow-Motion Train Wreck: Merger Mayhem

August 5, 1998 at 7:50 AM CDT

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This article is for **subscribers only**.

Union Pacific's Slow-Motion Train Wreck: Merger Mayhem

(This is the third in a series of six stories looking at the disappointing performance of mergers in the 1990s. Other stories will examine a troubled international merger and the roles played by executives and investment bankers.)

Dallas, Aug. 5 Bloomberg) -- Union Pacific Corp.'s $5.4 billion takeover of rival Southern Pacific Rail Corp. has a special place in the history of mergers -- it failed from the start.

When Union Pacific executives took charge of Southern Pacific in late 1996, they said they were stunned by the haphazard systems the other railroad had adopted to cope with its chronic cash, equipment and personnel shortages.

Nowhere were the problems more evident than in Southern Pacific's key Englewood freight yard in Houston, where the railroad's traffic benefits from a large concentration of plastics and chemicals manufacturers like Dow Chemical Co. and DuPont Co.

Union Pacific officials, known in the industry for their high-handedness, set to work in early 1997, confident they could bring the Houston yard up to their own standards of efficiency. Instead, they created the worst railroad freight logjam in recent history.

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Railroads, like many industries, are consolidating at a rapid pace. Union Pacific's experience suggests other mergers may prove to be misguided. The UP-Southern Pacific fiasco has already served as a warning to other railroads. Norfolk Southern Corp. and CSX Corp. said last week they would delay their joint takeover of Conrail Inc. to reduce the potential of Union Pacific-like traffic jams.

Main Line Blues

Before the Union Pacific takeover, Southern Pacific's large Houston facility seemed to operate efficiently -- but that was only because the railroad was using its main lines to sort trains, instead of staging them all in the freight yard. Those maneuvers cleared the yard, but they clogged the main line.

Despite warnings from veteran SP employees, Union Pacific required that all trains be sorted in the yard to improve efficiency. But those attempts to solve the problem only exacerbated it.

``You take an inadequate merger plan, add Union Pacific's arrogance and its refusal to listen to the old Southern Pacific hands, and you end up with a disaster," said Paul Broussard, who runs a company in Houston that arranges rail transportation for shippers.

Soon rail cars were stalled as far away from Houston as California and Nebraska. ``It was a chain-reaction," Broussard said. ``It wasn't unusual to have 30 or 40 trains stalled, waiting to get into Houston," he said.

Damages

Delays saddled customers with extra costs of $100 million a month, according to testimony at federal hearings. Dow, DuPont and Union Carbide Corp. sued the UP for damages. The U.S. Surface Transportation Board, which had approved the SP takeover, prodded the railroad to improve its service, demanding it produce periodic status reports.

Instead of the $820 million in annual cost savings Union Pacific predicted through the creation of the U.S.' biggest railroad, the company lost more than $1 billion because of extra costs and lost business by early summer.

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Union Pacific had a net loss of $158 million in the second quarter, its third consecutive quarter of red ink.

Union Pacific's traffic is about 9 percent less than it was a year ago, with much of the freight going to its chief rival Burlington Northern Santa Fe Corp. Union Pacific's stock has fallen from an all-time high of almost 73 in July 1997 to three-year lows of about 40. The shares closed yesterday at 40 15/16.

The railroad still isn't running as it should. Will the merger ever work?

The Job Ahead

``On paper, it's a great franchise," said Edward Emmett, president of the National Industrial Transportation League, the largest U.S. association of shippers. ``How do they get the franchise to work the way it should? They've got to make a fundamental change in their outlook and be more customer focused."

Union Pacific's slow-motion train wreck began with misunderstandings and miscalculations and was abetted by the new owner's own cockiness.

UP officials thought they could solve the problem at Houston merely by bringing the freight yard up to what they believed was its full capacity to assemble trains. Ignoring warnings from SP officials and workers, they quickly closed satellite facilities they believed wasteful and consolidated switching at Englewood.

Only then did they discover that the yard couldn't handle as many cars as they had thought. Trains began backing up around UP's new 36,000-mile system because they couldn't get to Englewood and, eventually, through Houston.

Computer Lapse

The troubles were exacerbated by Union Pacific's failure to immediately link the railroads' computer systems -- workers on one line didn't know what was happening on the other. UP also failed to secure labor agreements permitting workers from one carrier to work on the other one -- the SP was

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short of crews at the time of the merger. These were two railroads under common ownership, not one bigger carrier.

Before long, factories were closing around the Gulf of Mexico, either because they couldn't get raw materials or because they couldn't get their products to market. Grain and coal shipment were frozen and freight destined for retailers around the country sat in yards for weeks. Ports in California were bursting at the seams as ships kept delivering goods that the railroad couldn't take on.

Unbelievably, Union Pacific carried out plans for scheduled track maintenance during the spring and summer construction season, even though that worsened traffic conditions. UP says this was work that had to be done.

The Unexpected

What's more, 15 crashes killed five Union Pacific workers and two stowaways from October to 1996 to October 1997, slowing service on its main lines. There also was a derailment at Englewood that stalled operations for a time. And, in late summer, Hurricane Danny washed out tracks, including all of Union Pacific's connections south of Memphis with CSX and Norfolk Southern.

``The series of unexpected and unfortunate occurrences combined to overwhelm our operations," said Gary Shuster, Union Pacific's spokesman.

Other railroads kept delivering freight to Union Pacific though the railroad couldn't deliver the goods already in its system. The railroad's sidings became virtually full, preventing trains from passing each other in opposite directions and faster trains from moving around slower ones.

Because Union Pacific couldn't deliver empty cars to their customers' plants for loading, the customers began leasing cars on their own and trying to move them to their factories over UP lines. This added to the glut of cars already in the system.

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By the time the Surface Transportation Board required Union Pacific to file public performance reports in the fall, the railroad had more than 350,000 cars in its rail system, 40,000 more than company officials said was the maximum for efficient operations.

Bitter Harvest

When the nation's farmers began sending grain to market from the summer harvest last year, the once-vaunted Union Pacific rail system was frozen.

The railroad has warned farmers that there may be extensive delays in moving grain again this fall if predictions for record and near-record harvests come true.

Traffic moves faster through the important Gulf Coast region, however, and Union Pacific officials say the worst is over. ``When we deliver what we say we will deliver, our reputation will come back," says spokesman Shuster.

Last week, the government transport board declared that the ``service emergency in Houston is over," and said it will cancel the authority it gave to two Union Pacific competitors to move freight for customers in the Gulf Coast region. Its decision wasn't greeted with unanimous support.

Broussard, the go-between for railroads and shippers, said ``things have gotten better" around Houston since the darkest days of last year. ``But service standards are still unacceptable."

Emmett, of the shippers group, said, ``The traffic jam has been exported, like a blood clot, to another part of the system." He noted that delays have been growing at the nation's busiest ports in Southern California and along the railroad's central corridor from California to Texas.

Many shippers, aware that Union Pacific has declared victory prematurely before, remain skeptical. They should. And their experience should make companies and investors in all industries wary of the supposed benefits of mergers.

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EXHIBIT 5

RailTrends opens with sharp debate over UP-NS merger

web.archive.org/web/20251201134411/https://www.trains.com/pro/freight/railtrends-opens-with-sharp-debate-over-up-ns-merger

November 21, 2025



Union Pacific and Norfolk Southern power leads a westbound unit tank-car train at Berkeley, Ill., on June 4, 2016. Discussion of the proposed UP-NS dominated the first day of the RailTrends conference in New York. David Lassen

NEW YORK — Rail industry officials focused on only three topics during the opening day of the RailTrends conference: Merger, merger, and merger.

Union Pacific's proposed $85 billion acquisition of Norfolk Southern dominated conversations and presentations on Thursday. Can the plan to create a transcontinental railroad win regulatory approval? Can it lead to volume growth in an industry that has seen little of it since 2014? Will it force other Class I railroads to merge — or can interline partnerships be an effective competitive response to a railroad that will handle nearly half of all U.S. rail freight volume?

Shipper associations have argued that the merger will reduce rail competition and raise rates. But Adriene Bailey, a partner at the Oliver Wyman consulting firm, says Surface Transportation Board waybill data disputes this.

Costs per ton-mile for shipments moving in single-line service over one railroad are 31% lower for short-haul moves, 22% lower for loads moving between 500 and 1,000 miles, and 8% lower for hauls of between 1,000 and 1,500 miles than for shipments moving in interline service involving two railroads, she says.

Plus, rail market share is significantly higher for shipments moving in single-line service, which Bailey says is evidence that shippers prefer dealing with only one railroad because it provides a more truck-like experience.

A merger has advantages over interline partnerships, Bailey says. But a transcontinental merger would not do anything to help narrow the disadvantages railroads face against trucks from technology and customer-focus perspectives, she says.



Intermodal analyst Larry Gross, shown at the 2025 MARS conference, told RailTrends attendees that domestic intermodal traffic could grow by as much as 25% through mergers or interline agreements.
David Lassen

Intermodal analyst Larry Gross told the conference that seamless service — whether through a merger or interline agreements — could potentially boost domestic intermodal volume by as much as 25%.

This conclusion, he says, is based on market-share data that shows intermodal lags in moves between 1,000 and 2,000 miles, which is the range that sits right between the maximum lengths of haul on the eastern and western railroads, respectively. If market share in those

lengths of haul was on par with single-line service on the eastern or western railroads, it would equate to significant growth, Gross says.

Independent rail analyst Rick Paterson looks at long-term traffic trends for UP and NS and is skeptical that the merger would lead to traffic growth. In the last 10 years, excluding coal, the combined UP-NS volume is up just 0.2%, Paterson says.

And yet UP and NS are projecting nearly 10% volume growth within three years of their merger, based on their merger-related revenue synergies, Paterson says.

“At the end of the day, this is a ‘trust me’ story, because they’re asking us to believe that these two companies, which have recorded zero volume growth over the last 10 years, will now grow by 10% within three years,” Paterson says. That kind of growth, he says, is improbable.

Canadian National CEO Tracy Robinson and BNSF Railway Chief Marketing Officer Tom Williams, in separate presentations, said a transcon merger isn’t necessary and is unlikely to win approval at the Surface Transportation Board.



CN CEO Tracy Robinson speaks at the MARS conference in January 2024. Speaking at RailTrends on Thursday, Nov. 20, she said the UP-NS merger is unlikely to receive regulatory approval. David Lassen

Robinson says the UP-NS deal cannot clear the higher regulatory hurdles that were put in place under the STB’s 2001 merger review rules. Those rules require merging railroads to show that their combination is in the public interest and enhances competition. They also require, she notes, railroads to show that they cannot achieve the benefits of merger through interline agreements.

“That’s a really high bar,” she says.

Robinson she's been asked recently why it's OK to have two transcontinental systems in Canada but not in the U.S. The answer, she says, comes down to population density. Canada, with just 10% of the population of the U.S., cannot support more than two railroads.

The two-railway system, she adds, comes with a heavier regulatory burden than U.S. railroads face. In Canada, regulators determine how much grain revenue the railways can earn, shippers can seek rate relief through an arbitration process, extended interswitching gives many shippers access to both railroads, and rail customers who are not happy with their service can request regulatory reviews.

It's a regulatory framework, she says, "that's pretty heavy."

Williams says the STB's 2001 rules were intended to cover enhanced rail competition, not how railroads compete with trucks.

Yet UP and NS have thus far interpreted "enhanced competition" to mean how the merged railroad will be better able to compete with the highway by eliminating interchanges. They also have said their merger is so pro-competitive by itself that they don't need to offer concessions or conditions to any shippers or railroads aside from the 10 or so customers in the Midwest that are jointly served and would have access to just one railroad after the merger.

"It's hard for me to get my head around how that even translates into maintaining competition, let alone enhancing competition," Williams says.

He contends there are essentially four transcontinental railroads in the U.S. today: Interline service involving BNSF and NS, BNSF and CSX, UP and NS, and UP and CSX. "If this transaction is approved, two of those four transcontinental railroads are eliminated," Williams says. "And when you eliminate those two railroads, you effectively eliminate all the lanes that are associated with those two railroads."

Merger history, he says, is not on the side of UP and NS.

After the megamergers of the 1990s, rail market share fell 3% compared to trucks. Plus, those mergers resulted in service meltdowns like the one that followed UP's 1996 acquisition of Southern Pacific and cost customers $100 million per month, Williams says.

And this year CPKC customers suffered through three months of delays after a troubled computer system cutover in former Kansas City Southern territory in the U.S., he says. CPKC, meanwhile, has fallen short of its projections for converting highway freight to rail.

Williams says railroads can achieve many of the benefits of mergers through interline alliances, like the slew of intermodal partnerships that have been announced this year,

including the BNSF-CSX alliance linking the Southwest with the Southeast, Midwest, and Northeast.

UP CEO Jim Vena has said that alliances never last — partly because railroads inevitably do what's best for their own network when they have crew or locomotive shortages. But Williams points out that the BNSF-CSX intermodal haulage agreement has stood the test of time. Since 2006, the agreement has given BNSF access to the Fairburn intermodal terminal outside Atlanta via the BNSF-CSX connection in Birmingham, Ala.

There has been speculation that the Trump administration would put pressure on the STB, an independent agency, to approve the merger. Trump and Vena met at the White House in September, and Trump said the tie-up that would create the first transcontinental freight railroad "sounds good to me. Union Pacific is a great railroad."



Analyst Anthony B. Hatch is confident the UP-NS merger will get a fair review from the Surface Transportation Board. David Lassen

But independent analyst Anthony B. Hatch says the UP-NS merger will get a thorough review at the STB. "I'm a believer in their independence. I'm a big believer in the personnel. I know them. I do not think they rubber stamp for anybody. The whole notion of having a photograph in the Oval Office means that this has already been pre-decided is dead wrong."

The three current STB members — Chairman Patrick Fuchs, Karen Hedlund, and Michelle Schultz — took the stage later in the day. Fuchs, in response to a question, said the board would consider all the evidence and arguments and reach a thorough and fair decision regarding the merger. The three members also emphasized the collegial, nonpartisan way that they work together.

Vena, sitting a few rows in front of the conference stage, told the board members that he knows the STB review will be tough and that they will rely on the facts when weighing the merger.

Genesee & Wyoming CEO Michael Miller says the drawn-out merger review process likely will stall more shortline railroad deals like the one that G&W's Central Oregon & Pacific reached with UP to handle its local switching and service in Eugene, Ore.

Spinning off local operations can play to a short line's strength of providing frequent and flexible service while allowing the Class I to focus on what it does best, which is moving trains over long distances, Miller says.

"The local customers are growing because we're providing seven day a week service, not three day a week service that was provided before," Miller says.

The deal in Eugene — which involved UP leasing trackage to G&W's CORP — required the approval of the Surface Transportation Board. "I don't think anybody will take any of these deals to the STB in the middle of what's going on right now," Miller says.

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EXHIBIT 6

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Union Pacific Corporation (UNP)

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305.49 +3.38 (1.12%)

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SUMMARY

Carload volumes rose 5% this quarter, led by industrial and intermodal growth, while fuel costs pressured margins but highlighted rail's efficiency over trucking. The merger review is progressing, with strong stakeholder support and strategic concessions to enhance competition. Technology and capacity investments position the company for continued growth and service excellence.

Ravi Shanker

Analyst, Morgan Stanley

Good news. I found Mr. Jim Vena.

Jim Vena

CEO, Union Pacific

Pardon me?

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Ravi Shanker
Analyst, Morgan Stanley

I said I found you. You're working the room. That's pretty amazing. Great. Let's keep the transport content going. Very happy to welcome back to Laguna, Union Pacific Railroad CEO, Jim Vena. Welcome back, sir, and CFO, Jennifer Hamann. Thanks so much. Tons going on. I know we have some slides out and there are QR codes on your desks for you to access the slides. Jim, I don't know if you want to start with some opening comments and maybe walk through what's in them.

Jim Vena
CEO, Union Pacific

Ravi, listen, thank you very much and good morning, and I've had a chance to say hi and good morning to a number of you. I would rather done that than this. Okay? We could talk personally, but that's okay. Ravi, thanks for inviting me.

Ravi Shanker
Analyst, Morgan Stanley

Absolutely.

Jim Vena
CEO, Union Pacific

What a wonderful place. So listen, Ravi, cautionary information, typical. We do not want to make forward-looking statements. If you need some more detail, please give us a call. Go online and there is a whole boilerplate now that is a freaking big page long. Go read it and figure out because we do not want to do anything wrong. Right, Jennifer?

Jennifer Hamann
CFO, Union Pacific

Absolutely.

Jim Vena
CEO, Union Pacific

Okay. Let's talk a little bit about how we are doing in this quarter. Carload s are up around 5% this quarter, and it is a mix, which is nice. It is not just intermodal and what is happening with fuel prices

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and everything else. Actually, our industrial month to date, and I am giving you a number that is not public, but it will be public, n ow it is 5.2%. It is nice to see a cross-section of business, how we are moving it. Bottom line, I could sit here and talk about the metrics completely, but I am sure all of you guys know what I look at and what is real important.

Overall, the metrics at the start of this quarter were a little lower than last year because of incidents and things that we had happen impacting the railroad. Fundamentally, it was not what we were doing, and it has recovered nicely. We are in the mid-230s again in Car Velocity, the dwell under 20 hours. We are handling the increase in business without degrading our service product or degrading how we move. I am very happy with that. Listen, we keep on talking operating ratio, and some people misunderstand me when I talk about operating ratio. Absolutely, you want to have the best operating ratio that your railroad can deliver because of revenue, the type of revenue, and the cost structure that you have. I think we figured out a pretty good model to get to be the best in the industry. I think something like 300 or 400 basis points better than our next competitor, and we like that.

It gives us a different starting place when we are looking at how we bring business on, and that is real important to us. We do not lose sight of that, and we will continue to do everything we can to be able to keep it at the right place. I have said this 1,000 times. If you concentrate on a number, then you miss business or you make decisions that are bad for the long term. I am not the CEO of. They did not hire me as the CEO of operating ratio. They hired me as the CEO of Union Pacific, and that is what I do. Okay? Now, we are going to be the best. We want to stay at the top. We want to win, and it is all about how much business we can bring on that is fundamentally strong business for our company, and I like where we are.

Jennifer, any more sort of details?

Jennifer Hamann

CFO, Union Pacific

No, I think you've hit really some of the high points, particularly around the volume side. Only things I'll add is when you look at what's really the driver of the growth, great to see that Industrial business, and that's been pretty broad based across many of the segments within Industrial. You've got bulk that's down about 1%. It's pretty similar to what we saw in the second quarter where the low natural gas prices continue to impact the coal demand, but we're seeing very strong demand on the grain side of the world. We look for that to continue. We're getting into the harvest season in the Midwest, and it looks to be a pretty decent harvest in our served territory again. So that's good, and that should give us some sustainability on the grain side.

Then just going back to the intermodal piece, that really is the biggest driver of our growth here in the quarter, and so that does have a mixed impact t hat we just need to remind folks of because that domestic intermodal piece, good business, w e love the business, and we're probably looking at

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what's going to be our fifth consecutive quarter of records in terms of looking at it year-o ver- year. So even before the cycle started to change our service product and the way that we were going after and winning and developing business in that market has been shining through. But that will have a little bit of an impact on the mix.

Jim Vena
CEO, Union Pacific

You bet.

Jennifer Hamann
CFO, Union Pacific

Jim's comments on the operations are spot on. We're handling it well. Our strategy with the surge resources is definitely helping us. That's definitely to our benefit, and we see strong core results with that. The only, I'll say, fly in the ointment is fuel.

Jim Vena
CEO, Union Pacific

Sure.

Jennifer Hamann
CFO, Union Pacific

I'm sure everybody's talking to you about fuel, Ravi.

Jim Vena
CEO, Union Pacific

Yep.

Jennifer Hamann
CFO, Union Pacific

Back in July, we thought we were maybe going to get a little bit of a reprieve. Since then it's ticked up pretty substantially. So we're probably going to average, I'd say around $4.25 or so for the quarter, the third quarter. But I have to say right now we're paying closer to $5.20, $5.30 a gallon. So it's come up pretty substantially, and obviously that has some short-term impact on our operating

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ratio. But again, the core business, the core fundamentals of what we do, Safety, Service, Operational Excellence . We're hitting on all cylinders there.

Jim Vena

CEO, Union Pacific

Yeah, you bet. You bet. Ravi I could go on further and fill this whole 27 minutes and 31 seconds

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Ravi Shanker

Analyst, Morgan Stanley

They're not here to listen to me. They're here to hear from you

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Jim Vena

CEO, Union Pacific

on merger, but you know what? I'll leave it to you.

Ravi Shanker

Analyst, Morgan Stanley

Oh.

Jim Vena

CEO, Union Pacific

I like where we are and the way to go, so all yours. Looking forward to the questions.

Ravi Shanker

Analyst, Morgan Stanley

Great. Perfect. Maybe let's start with some of the macro and demand picture, and we'll come to M&A obviously in a second. But, actually, Jennifer, maybe we can just piggyback off of your fuel comments here. How do we think about that OR walk, 2Q to 3Q to 4Q, based on what you laid out, both in terms of the fuel lag that you guys have on the recovery side, but also potentially any tailwinds you might be seeing on incremental truck conversions as a result of that?

Jennifer Hamann

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CFO, Union Pacific

Yeah. So on the last part of your question, it certainly is benefiting us from just highlighting that stark difference in terms of the fuel efficiency between truck and rail. And, we believe that is starting to drive some conversions to the network over and above what maybe some of the cyclical changes are driving. So I do think that's a plus for us. In terms of the OR impact, I think we had about 120 basis point impact to our OR in the second quarter with fuel prices coming up t o where they're at now.

Ravi Shanker

Analyst, Morgan Stanley

Yep.

Jennifer Hamann

CFO, Union Pacific

Probably fair to say that it's going to be that big of an impact or bigger. But again, that's why I point back to the core. Core is very strong and continuing to see improvement.

Ravi Shanker

Analyst, Morgan Stanley

Got it.

Jim Vena

CEO, Union Pacific

Well, Ravi, real quick. Fundamentally, at a higher fuel price, not as hot, is never good for the economy-

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Ravi Shanker

Analyst, Morgan Stanley

Sure

Jim Vena

CEO, Union Pacific

-in the long run.

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Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

That's what you have to worry about, that's what you have to be prepared for, that's what we have to do. Now, we haven't seen it so far.

It's truly amazing, with the products that we're moving, other than some specific areas that you know are going to be reactive quicker, that we've seen a slowdown. It's interesting. It helps us bring more business in. We sure don't want to damage, and have the economy damaged by having high fuel prices and slowing some things down. But so far, we haven't seen it.

Ravi Shanker
Analyst, Morgan Stanley

Understood. But going back to Jennifer's comments of the core being really strong here, obviously you're seeing mid single digit volume growth. You raised the guidance last quarter. Is it fair to say that we are now out of the freight recession, and we have visibility of what's coming forward? Or to Jim's point, is that still a little bit of a risk?

Jennifer Hamann
CFO, Union Pacific

I mean, it feels good right now.

Ravi Shanker
Analyst, Morgan Stanley

Okay.

Jennifer Hamann
CFO, Union Pacific

I think our customers are pretty bullish right now. When you look at order books, when you look at inventories, I think those point to some sustainability here in the demand.

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Ravi Shanker
Analyst, Morgan Stanley

Okay.

Jennifer Hamann
CFO, Union Pacific

We feel good about that, other than watching, is there the possibility for some demand destruction with the high fuel?

Jim Vena
CEO, Union Pacific

Right.

Ravi Shanker
Analyst, Morgan Stanley

Got it. On domestic intermodal itself, obviously the big theme of the conference has been the capacity tightness on the trucking side. Has that resonated with your customers, and is that driving a long-term pipeline of volumes coming your way? Or does it feel like shippers are being a little more opportunistic, just given how suddenly this kind of crept up on them?

Jim Vena
CEO, Union Pacific

Bottom line is it's a little bit of both.

Ravi Shanker
Analyst, Morgan Stanley

Okay.

Jim Vena
CEO, Union Pacific

Okay? Let's get serious here. If they thought that they could have a better product and move it quicker some other way, they'd leave us real quick, a certain percentage that just came on.

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Ravi Shanker
Analyst, Morgan Stanley

Got it.

Jim Vena
CEO, Union Pacific

Okay? That's life.

Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

But the best way for us to keep them, high service product-

Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

-show them that we can deliver it, and the final receiver of the product, the true decision-maker, is real important.

Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

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The shipper or the receiver, not the trucking company.

Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

Okay?

Ravi Shanker
Analyst, Morgan Stanley

Got it. On the international intermodal side, obviously there's a lot of talk on the price gap now between the East and the West. How does that benefit you guys, and what is the Again, does it also seem transitory, or do you think there's more structural gains to be had there?

Jennifer Hamann
CFO, Union Pacific

I think we'll see. It seems like there's different headwinds and tailwinds that tend to make that freight shift back and forth-

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Ravi Shanker
Analyst, Morgan Stanley

Yeah.

Jennifer Hamann
CFO, Union Pacific

-between the two coasts, and I think that shows, going back to Jim's point about the optionality of these firms. They're going to look for their best option, best transit time, best overall price to delivery. But right now, I do think with some of the low water levels in the Panama Canal, some of the other things that are going on in the world, we are seeing a little benefit. Our international intermodal volumes are up a little bit here in the quarter. That's a positive for us.

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Jim Vena
CEO, Union Pacific

You can sit there if you're in my job or Jennifer's job, and worry about things that you don't control, or you do look at things that you can control. The customers that are buying internationally, and when they look at their supply chain, if it's better for them to go to the East, they're going to go to the East. If it's better for them to go to the Gulf, it's go to the Gulf. If it's better for them to go. Our job to partner with, I'm here in the West Coast with Long Beach, and we have a great relationship, and L.A., who are supportive of our merger because they see the benefit, then we work, and that's why we're doing the things we're doing to be faster, more consistent, so that when people make decisions.

Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

Because it's a cost thing. It's a cost and service thing, right?

Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

Listen, I get different service when I go to McDonald's. No, I didn't take my wife. Some people remember me saying this, about was going to take my wife for

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Ravi Shanker
Analyst, Morgan Stanley

The burger in the conference call

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Jim Vena
CEO, Union Pacific

right, for our anniversary to McDonald's. I did take her to a nice steakhouse in Omaha. But bottom line is, I go there for speed, quality, and that's what I get. But when I go to one of those $80 steakhouses for a can you believe it? For a steak, 80 bucks. But at the end of the day, I expect something different. If it's not there, I'm going to go back and get an $8 Big Mac.

Ravi Shanker
Analyst, Morgan Stanley

Sure.

Jim Vena
CEO, Union Pacific

Okay?

Ravi Shanker
Analyst, Morgan Stanley

I don't think so, but sure.

Jim Vena
CEO, Union Pacific

I'm not real worried about the East Coast, West Coast, but that's why we want to merge.

Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

We're going to give people more optionality with a single line that'll take you across the country looking forward to it.

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Ravi Shanker
Analyst, Morgan Stanley

Yep. I'll come to the merger in just a second.

Jim Vena
CEO, Union Pacific

Oh, that's okay.

Ravi Shanker
Analyst, Morgan Stanley

Thinking about $80 stakes and pricing here, obviously, what is happening in the truck market kind of gives you a pretty nice opportunity for intermodal pricing as well. You guys said that you think it will be a bigger opportunity next bid season for you guys. Can you just talk about how you see that rolling through mechanically, kind of cadence over the next few quarters?

Jim Vena
CEO, Union Pacific

Jennifer, why don't you take them through the sort of the three different models that we have, right?

Jennifer Hamann
CFO, Union Pacific

Yeah.

Jim Vena
CEO, Union Pacific

Some of it is priced in on long-term contracts, so way to go.

Jennifer Hamann
CFO, Union Pacific

Yep. I think the part you were just referring to, Ravi, is some of those longer term contracts

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Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jennifer Hamann
CFO, Union Pacific

-which we put some flexibility into the pricing, which has served us well because, at the time we won some of those contracts, you started to see the market tail off. What you are seeing now certainly is the volume come from those contracts, but the pricing will lag, and it will trail a little bit. Then you also have the business that moves on more of a spot basis. That bid season is in more the springtime of the year, and so since spring of 2026, prices have continued to run up. Assuming they stay at these levels or-

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Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jennifer Hamann
CFO, Union Pacific

-continue to go higher, we would expect a stronger bid season. Again, you are going to get the benefit of that more in the back half of 2027. Then the third piece that Jim is talking about is we have our own boxes.

That is the nice thing about our intermodal franchise, is we can hit the market in a number of different places. With our boxes, we actually have them fully unstacked, out and running for the first time since about 2008, or excuse me, 2018. Went back too far. Dropped a decade. But 2018, so that is a long time. We have actually gone out, and opportunistically picked up a few extra boxes, and we have put some surcharges on there as well to reflect the strong demand that we have for that part of our product. We are hitting on all of those cylinders, and it is being supported by the service product, so that is where we feel good.

Ravi Shanker
Analyst, Morgan Stanley

Got it. You said the S word, so just given what is happening to fuel, is there an opportunity to maybe use surcharges and accessorials to maybe get pricing a little bit quicker? Especially given how

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extraordinary what is happening with fuel is.

Jennifer Hamann
CFO, Union Pacific

Our fuel surcharges are programmatic. They're set up either through contracts with our customers, or through our tariffs, so they've been in that same situation for a very long time. They're just kind of set it and forget it. What I was referring to was some of the peak season surcharges

---

Ravi Shanker
Analyst, Morgan Stanley

Sure.

Jennifer Hamann
CFO, Union Pacific

that are lane specific, market specific, and intermodal

Ravi Shanker
Analyst, Morgan Stanley

Right.

Jennifer Hamann
CFO, Union Pacific

to address some of the capacity.

Ravi Shanker
Analyst, Morgan Stanley

Got it. On peak itself, we've heard from a few trucking companies so far that they're looking forward to a very robust peak. Do you guys have a sense of what that's looking like just yet, or is it a little too soon?

Jim Vena
CEO, Union Pacific

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I do not know. We think that the volume is not going to go up a whole bunch-

---

Ravi Shanker
Analyst, Morgan Stanley

Okay.

Jim Vena
CEO, Union Pacific

-in those segments that are usually driven by peak. But I am hoping that everybody else is right, and not our experts.

Ravi Shanker
Analyst, Morgan Stanley

Got it.

Jennifer Hamann
CFO, Union Pacific

They are pretty decent levels right now.

Jim Vena
CEO, Union Pacific

Yeah.

Jennifer Hamann
CFO, Union Pacific

That's the nice point.

Jim Vena
CEO, Union Pacific

Yeah. It's not negative

PUBLIC VERSION - REDACTED

Jennifer Hamann
CFO, Union Pacific

No.

Jim Vena
CEO, Union Pacific

-but I don't see another substantial-

Jennifer Hamann
CFO, Union Pacific

Yeah.

Jim Vena
CEO, Union Pacific

-double-digit increase.

Ravi Shanker
Analyst, Morgan Stanley

Got it.

Jim Vena
CEO, Union Pacific

For sure.

Ravi Shanker
Analyst, Morgan Stanley

I think a big message from you guys for the last two, three years during the downturn has been, "Hey, we have the capacity for when the volumes do come back." You have seen a pretty nice improvement in volumes already, kind of off the bottom here in the last couple of years. Where are you now on excess capacity on the service levels that you can maintain? At what point do you think you'll have to bring some resources back? This will be a high quality one.

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Jim Vena
CEO, Union Pacific

Ravi, it's pretty simple, okay? What we did was starting in 2019, we looked at the railroad in a completely different manner of what was possible. We invested hundreds of millions of dollars in making our railroad to be able to handle trains of different lengths and in different corridors. As we publicly have said lots, we operate with more business than we did in 2019, with 24% less trains. Some people think that's a number you can just slap on the wall, and it was easy. That wasn't easy, but that's capacity that we have excess.

Ravi Shanker
Analyst, Morgan Stanley

Sure.

Jim Vena
CEO, Union Pacific

If we're going to run seven new lanes in the merger, my God, we don't get back to where we were even in 2019.

Let alone the business that we have now.

We're very comfortable with that piece. And the other two areas that you always have to be careful with is locomotives. The reason is you just can't get them if you need them in a short period of time. Otherwise, the buffer would be zero. We'd just go down to the corner place and buy a locomotive, but nobody has them just sitting there for us

---

Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

and people. I'm very comfortable with capacity wise. Few little pinch point areas that we'll continue to invest in.

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On the intermodal side, Jennifer, we spent, I think, something like $1.2 billion in the last eight or nine years to increase our capacity, the number of lifts we put in there, on purpose to be able to handle these changes that we think that we can draw to our railroad as we move ahead. That's what we've done, is tried to touch every piece of our business to give ourselves the capacity to not run up against it. And you'll see that if you run up against it, you just slow down.

The railroad slows down-

Ravi Shanker

Analyst, Morgan Stanley

Yep.

Jim Vena

CEO, Union Pacific

-which is not good.

Ravi Shanker

Analyst, Morgan Stanley

Got it. Just to follow up from that topic very close to your heart, you mentioned it several times already today, which is service levels. How comfortable are you with where you are with service? What technology investments do you have to make to push that to a new level? And are you confident that will sustain even when these volumes come back?

Jim Vena

CEO, Union Pacific

Listen, let's just tag team this. We've invested on technology from gate technology. At technology, so truckers can come in seamlessly. They don't even have to stop. They slow down to come in and out of our terminals. The way we switch boxcars at the terminals, we've invested in technology that allows them to do more, so we're handling switch number of cars per hour, probably 20% better than we were before. We continue to invest.

We have taken all our main systems a nd replaced them with the latest in the last three or four years, whether it's the dispatch system, whether it's our fundamental NetControl. The best part about NetControl was, it was a little scary thing, and I had hoped that Lance had done it when he was the CEO, but he sort of left that for me and kept it building. They came to see me and said, "We're going to shut down our main system that runs everything off of it, payroll, cars, everything." I said to him,

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"Well, what's our backup? If that doesn't work or we have a glitch, what do we do?" He says, "You can't do anything because you can't meld the two." We're talking about hundreds of thousands of railcar movements and everything else, and we did it over a weekend. I give Rahul and his entire team accolades.

So we're ready to do what we have to do moving forward. I'm very comfortable where we are. Jennifer, anything to add, or did I cover it?

Jennifer Hamann

CFO, Union Pacific

You covered a lot of it. We are continuing to develop both within our terminal systems, our Terminal Command Center, that's going to help prompt decisions originally to some of the managers in terms of how do they want to bring the trains into the yard, how do they want to set up the switch plans to make sure that the cars are making the next connection. Ultimately, you look forward, instead of just prompting the terminal manager, it's going to go ahead and make those decisions and send those instructions to the crew automatically. There's a lot ahead of us there that we can do to continue to get more productive and safer.

Jim Vena

CEO, Union Pacific

The most exciting thing that we are working on, and we're pretty close, is a dynamic operating plan.

It takes us a long time to change the operating plan against what happens with the business because you have so many things you have to worry about, assets, people, commitments, service plans, everything else. I'm telling you, we are very close. I'd like it so that the day after tomorrow we could have a new plan that fulfills what we have to do, but able to be able to run assets better and cheaper, size of trains and everything else. We're getting there. I'm not happy with Rahul on this one and hopefully he's listening in. I expected him to give it to me six months ago, and he thinks it's difficult. I don't know. It's pretty simple from where I sit. He just needs to get going on it.

Ravi Shanker

Analyst, Morgan Stanley

You should take him for a run early in the morning.

Jim Vena

CEO, Union Pacific

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Oh, he's too fast.

Ravi Shanker
Analyst, Morgan Stanley

Yeah.

Jim Vena
CEO, Union Pacific

He's a marathoner. Son of a gun. I would have to trip him to beat him, for sure. He is fast, Rahul. Fast.

Ravi Shanker
Analyst, Morgan Stanley

Never mind. I have a few more questions on financials and some thematic topics, so I'll come to that in the end. Maybe let's talk about the merger now. First of all, congratulations. The STB obviously has removed the proceedings from abeyance, resumed consideration of the merger on merits

---

Jim Vena
CEO, Union Pacific

Yes. Thank you.

Ravi Shanker
Analyst, Morgan Stanley

accepted the applications. How do you view this latest milestone? How should investors think of it? And give us a sense of what do you think the timeline and the next steps are from here?

Jim Vena
CEO, Union Pacific

Well, listen, we are very happy to cross that threshold because once the STB on May 28th accepted the merger application, then the clock starts. This next piece is the merits and the parties that have an issue with what we're doing get to put in, but they have to put in their detail.

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They have to tell the STB and make it public what it is that they can't just speak. It's like some railroads are out there saying that we end up with 50% of the business. That's just a lie. It just is a lie. Burlington Northern Santa Fe, owned by Berkshire, big company, they have more gross ton miles than us. So we're number two on gross ton miles. Yes, our revenue's more. You'll have to ask them why. That's up to them. Not up to me. Okay? And our operating metrics are better, everything else, but bottom line, that's where we are. CSX and Norfolk Southern are about the same. So if you put number two and three or two and four together, you don't get to 50%.

Somebody forgot that there's two Canadian railroads that actually operate in the U.S. So you add them in there, Canadian National and Canadian Pacific, and we end up at 40. The reason I'm telling you this story is they can't go about telling the STB that we get to 50 without proving their math. And I don't know what math people are taking, but it's just wrong.

I even heard it yesterday-

Ravi Shanker
Analyst, Morgan Stanley

Yeah.

Jim Vena
CEO, Union Pacific

-at IANA. Son of a gun. The good part about it is, I love where we are without being too snarky.

Ravi Shanker
Analyst, Morgan Stanley

Sure.

Jim Vena
CEO, Union Pacific

I apologize if I woke up a little snarky this morning. Bottom line is, I like where we are in the process. It's taken us way too long to get here, but if anybody's worked with government regulators, it takes them a while to get through to the right place you want them. I'm going to look at it from their side. I think they're being very cautious in making sure that they do the right thing as they go through the process. I think the chair and both the members, all three members, sorry, are smart and they'll make the right decision because they see the benefit for America-

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Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

-and the benefit for the shippers and the benefit for America to win against worldwide competition. I love it where we are. We have a timeline now called May 28th next year.

They get 30 days to give us a decision. Now, again, this is Jim Vena. I'm hoping they make the decision in two days. So on the 1st of June, we have an answer, but I bet you any money they don't take two days, Ravi.

Ravi Shanker
Analyst, Morgan Stanley

We shall see.

Jim Vena
CEO, Union Pacific

Jennifer, anything you want to add on that?

Jennifer Hamann
CFO, Union Pacific

No.

Jim Vena
CEO, Union Pacific

I think I covered it off.

Jennifer Hamann
CFO, Union Pacific

I think you covered it off.

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Ravi Shanker
Analyst, Morgan Stanley

Jim, you guys have not been sitting still waiting for them. At the same time, you offered a number of concessions already. You obviously had the agreement with Canadian National. Can you just talk about the thought process there, kind of why you did that, and what benefits do you think it will give you through the process?

Jim Vena
CEO, Union Pacific

Well, listen, you can go study history all you want, all the way back on mergers and anything else, and you need to deal with concentration of railroad against customers, and that is what we had. When the merger gets consummated, we would end up with three rail tracks between our two that we have today, plus we would take over the Norfolk Southern one. We needed to do something with that. You cannot have that.

Either we make a deal with somebody, and I give Canadian National and Tracy and the whole team there a lot of credit. They could see the value of what they do. They are going to be able to move intermodal from Canada into there if they want to Kansas City, and I think it is wonderful. It is competition, and they might take a little business away from us. Now, they better be good or we are going to try to keep it, right?

But at the end of the day, I love that. With that, we started talking about the terminal issues, whether it's the TRRA. The STB came back twice and asked us on the TRRA, even though we said, "Listen, we don't want to control it." What people miss, there's terminal railroads and cooperation agreements within terminals across the U.S.

They are all run with one thing when the railroads own them. It's a non-profit. It's not there to make money. It's there to switch a rail car for the cheapest price going, and that's how we manage it, all of us. We fixed TRRA with this, and we fixed the Kansas City. So it's good for CN. It expands their reach. We had to fix that. If you look at our network now, it's a bolt-on.

Ravi Shanker
Analyst, Morgan Stanley

Sure.

Jim Vena
CEO, Union Pacific

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Would I make a deal with another railroad? Absolutely. It would have to be a win-win for Union Pacific and for them. They could see what the benefit is. The idea to give up tracks of your railroad for no reason at all just goes against the fundamental principle of how business should work. On top of that, this is what it would do. If we allowed X railroad to run on our railroad for 800 mi, we would charge them a per car mile charge that actually would make it more expensive for them to get to that destination. I have thought about just about agreeing. Because guess what? We would just reset the price higher for us.

Ravi Shanker
Analyst, Morgan Stanley

Sure.

Jim Vena
CEO, Union Pacific

Okay? That doesn't make a particle of sense in business.

In business, it should be who can get the best and what the market allows you to do. That's why I am going to have a hard time making a deal with anybody else.

But if it's there. One piece of the deal that's really interesting, Ravi, is we gave Canadian National access from Canada to Mexico.

Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

Through Memphis.

Ravi Shanker
Analyst, Morgan Stanley

Yep.

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Jim Vena
CEO, Union Pacific

Man, I can hardly wait. We win by them growing Canadian business to Mexico.

Got to love the competition. We just added to Canada against the Canadian Pacific.

Ravi Shanker
Analyst, Morgan Stanley

Right.

Jim Vena
CEO, Union Pacific

Love it. I didn't get a phone call thanking me about, "That was a great deal for you, Jim, and bad for CN.

Ravi Shanker
Analyst, Morgan Stanley

We shall see how this plays out. Jim, can you give us the latest insight into the conversations you're having with various stakeholders here, folks who called you in support of the deal, folks who called you with concerns? What's the latest update on there?

Jim Vena
CEO, Union Pacific

You bet. So we have over 2,000 groups or individuals that are positive on the merger, letters of support. We have over 500 customers, and just a couple of days ago, the governor from South Carolina sent a letter in, and we have letters continuing to come in. So the support is the, and it's the most support that anybody's had on a merger. So, we're very happy, and it's across state lines all over the place.

And we have some detractors that have said that they put in, but at the end of the day, the positive is much stronger than the negative b ecause they see the benefit of being able to operate through. So we're continuing. I wrote a letter to the top 50 customers, CEOs, myself, and said, "Listen, if there's anything that you want to talk to me that you don't understand, this is my personal phone number. This is me. Give me a call." And a couple of them have. And we've actually had great conversations and we'll probably get a couple letters of support from them.

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Ravi Shanker
Analyst, Morgan Stanley

Okay.

Jim Vena
CEO, Union Pacific

Some of the rest of them, I haven't heard from them, that means they must support me.

Ravi Shanker
Analyst, Morgan Stanley

Sign off your socks.

Jim Vena
CEO, Union Pacific

I got it. It's not quite. But at the end of the day, communicate with our customers because that's real important.

It's hard to communicate against associations. They don't pay anything.

Ravi Shanker
Analyst, Morgan Stanley

Sure.

Jim Vena
CEO, Union Pacific

So it's pretty hard to have a proper discussion, plus I can't tell them exactly what we're doing with some of our customers.

They're an association. So I like it. Other stakeholders, son of a gun, I'm telling you if there's one thing I really screwed up on, I did not know I was going to have to make so many trips to different government offices somewhere in this country over this. I've done lots of, myself, Jennifer, and the entire team to make sure the story is straight. They get it. As soon as you tell them, how'd you like an airline industry that never went across the country? How'd you like an interstate system where when 80 gets to the Mississippi River, there's no road bridge across.

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You have to barge it across the cars over to the other side so you can get to the other part of the country. They get it as soon as you tell them that. So I love it.

Ravi Shanker
Analyst, Morgan Stanley

Yeah.

Jim Vena
CEO, Union Pacific

Lots of communication.

Ravi Shanker
Analyst, Morgan Stanley

Good analogy there. Any questions from the room? Madison, you can go first. Is there a mic? Here.

Jim Vena
CEO, Union Pacific

Okay. I love it.

Ravi Shanker
Analyst, Morgan Stanley

Here. Right up here.

Jim Vena
CEO, Union Pacific

Oh, there is a question?

Ravi Shanker
Analyst, Morgan Stanley

Yes.

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Jim Vena
CEO, Union Pacific

Okay. I thought I was going to get off the stage two minutes and 47 earlier.

Ravi Shanker
Analyst, Morgan Stanley

No, sir. We are not letting you off.

Speaker 4

Hi, guys. Thanks for the question. Mine is actually on autonomous trucking. I was wondering what your view is on it more broadly. Do you see it as a competitive risk or opportunity for railroads? As autonomous trucks increasingly become a reality, and if it does come to pass, how can rails close the gap on the value offered to customers?

Ravi Shanker
Analyst, Morgan Stanley

It's been a big topic of the conversation so far.

Jim Vena
CEO, Union Pacific

Listen, this is something that we should always think about in the business that we're in, and I do think about it lots. If you stand still, someone else is going to beat you. You got to look at what's coming up and you got to look forward. We're not into defragmenting, or fragmenting our railroad network to have 48 railroads like we had back in the Second World War, class ones. We want to move ahead because our competitors are moving ahead, and that is one of the reasons we've looked at this merger and we think it's so important for the country is the competition's going to get better and we need to be able to get better and have a chance to win. I've actually ridden in an autonomous truck, and I'm telling you, the technology's there on the road system.

I do everything I can. I know for an old guy, 68 years old, and people might say, by the time you get to 68 year old grizzled and you only look at things a certain way. If there's technology out there, I got my IT guy going to get me a flip phone from Apple because I want to see what that technology does. Plus, I think it's cool. At the end of the day, I ride Waymo. I ride Teslas that are autonomous. I go trucks. I don't fool around, Aurora, I've been in there. It's a few years ago.

PUBLIC VERSION - REDACTED

I'm telling you, the technology's there.

Okay? They are driving right now with somebody in the seat, but hang on, okay? We need to be able to be smart enough to move ahead. If we stay the same, we just lose business because-

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Ravi Shanker
Analyst, Morgan Stanley

Right.

Jim Vena
CEO, Union Pacific

-they are going to be competitively more efficient than us, and they stretch that mileage of how far they can haul.

Ravi Shanker
Analyst, Morgan Stanley

Got it.

Jim Vena
CEO, Union Pacific

If people want more trucks on the road, then I guess don't let us do the things that we need to do as a rail industry to move ahead. That's what's real important.

Ravi Shanker
Analyst, Morgan Stanley

You referenced the transaction in relation to that. Do you think that is going to be part of the debate, kind of, hey, autonomous trucks are coming. It will help the rails compete better or how do you think that will relate to the transaction?

Jim Vena
CEO, Union Pacific

Well, listen, I know the five key areas that the STB needs to look at.

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Public interest is the very first thing, and it is pretty hard for them not to look at everything that is coming up.

Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

You want a railroad that seamlessly can operate between the East Coast and the West Coast without handing off and being, even in intermodal, 8- 24 hours faster and less complication, less handling, safer because every time you touch something, it costs you something. Something could happen. Do you want to have a railroad system that allows you to compete against that truck?

Ravi Shanker
Analyst, Morgan Stanley

Yep.

Jim Vena
CEO, Union Pacific

Or do you want not to? Listen, that's why this merger is going to get approved. There's no question. It's good for the country. It is good for the customer. Single-line railroad costs less. Rates are less on a single-line railroad haul today than anybody that has a multiple railroad touch. That means that we can offer better. Now, I'm not here telling people expect a 5% rate cut because my job is to represent my company.

Ravi Shanker
Analyst, Morgan Stanley

Sure.

Jim Vena
CEO, Union Pacific

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But if we market-wise everything else, we could do that and still be able to do what we have to. So it is, Ravi, it truly is a great deal for America.

Ravi Shanker

Analyst, Morgan Stanley

Great. That's a great spot to wrap it up, Jim. Always fun, always insightful. Thank you so much for being here. Jennifer as well.

Jim Vena

CEO, Union Pacific

Ravi, thank you very much. Thanks, everyone.

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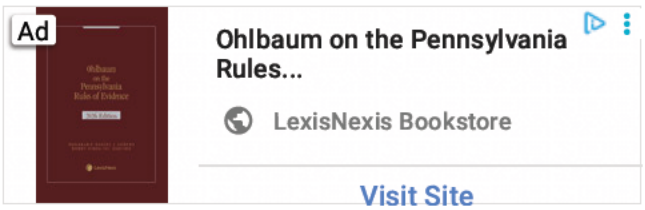

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EXHIBIT 7

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BNSF, NS, NWSA redesign faster service from PNW to Chicago and beyond



FORT WORTH, Texas, ATLANTA, Ga., & TACOMA, Wash., – BNSF Railway and connecting partners Norfolk Southern (NS) and the Northwest Seaport Alliance (NWSA) announced today a collaboration to redesign and develop a 3-day faster service product for inland point intermodal (IPI) traffic from the Pacific Northwest (PNW), destined to and connecting through Chicago.

The redesigned plan will encompass the NWSA building trains in less than 2 days dwell off the dock with the density to seamlessly connect to and through Chicago. The seamless hand-off across BNSF's Northern

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Transcon route enables faster transit and better consistency for cargo shippers.

“This service product collaboration was an outcome of listening to our joint customers, who emphasized the desire to use more rail, but would need to also reduce inventory carrying and total landed transportation costs out of their networks in 2025,” said BNSF Group Vice President, Consumer Products Jon Gabriel. “We are proud to deliver a solution that accomplishes these goals.”

The NWSA Seattle/Tacoma port complex reported the lowest rail dwell in the country thus far this year as a result of operational changes emphasizing rail loading.

“The Northwest Seaport Alliance is excited to partner with BNSF and NS to offer this industry-leading service for shippers utilizing our gateway,” stated NWSA CEO John Wolfe. “This is an example of how through partnership and innovative efforts we can respond to the needs of shippers and deliver best-in-class service for our customers.”

With reduced on dock dwell and faster transit, results will be 3 days faster, with the total time from ship to Chicago at 6 days, **the fastest from any PNW gateway in North America.**

NS and BNSF will deliver all interchange traffic to one location (NS-Ashland), for a single crew swap, then move toward inland markets in Ohio, Pennsylvania and more.

“At Norfolk Southern, we’re focused on delivering smart, customer-centric solutions—and this enhanced service from the Pacific Northwest to the Midwest is exactly that,” said Shawn Tureman, Vice President Intermodal Automotive Commercial. “By collaborating with BNSF and the Northwest Seaport Alliance, we’re offering a faster, more reliable rail option that helps shippers reduce transit time, cut costs, and streamline supply chains heading into 2025 and beyond.

This new and improved service will launch effectively immediately. For more information about how we can support your freight needs, please reach out to your BNSF or NS Commercial representative.

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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 Thomas Williams,
BNSF Executive Vice President & Chief Marketing Officer

November 18, 2026

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IX. CONCLUSION 54

1. My name is Thomas Williams. I am the Executive Vice President and Chief Marketing Officer of BNSF Railway Company. I have held this position since September 2024. I am responsible for overseeing all aspects of BNSF's marketing, sales, and economic development activity, including customer relationships, pricing, and service product development across commodity groups. Prior to my current role, I led sales and marketing teams in both the intermodal and carload space as Group Vice President of the Consumer Products Business Group with responsibility for all intermodal and automotive business, Vice President of the Domestic Intermodal Business Unit, and Vice President of Industrial Products with responsibility for a variety of industrial commodities including chemicals, plastics, building products, and construction products.

2. I started my career in the rail industry at the Santa Fe Railway Company in 1993 after receiving my undergraduate degree from Indiana University Bloomington. While working for BNSF, I obtained my Master of Business Administration from the University of Chicago and attended the Harvard Business School Advanced Management Program. All told, I have worked in the rail industry for over 33 years.

3. The proposed Union Pacific - Norfolk Southern merger is bad for shippers, bad for business, and bad for the American economy. The Board should reject the proposed merger. Should this merger be approved, rail customers would face fewer carrier and routing options, higher rates, and greater service risk and issues from the largest and most complex integration in modern rail history. The

customers and supply chains that depend on competitive rail would be left with a market that is permanently tilted against them. A combined UP and NS would control approximately half of the U.S.'s Class I rail shipments, and it would leave more than 10,000 customer facilities physically served by a single carrier. While a shipper moving freight across the country today can choose among four transcontinental pairings—BNSF-NS, BNSF-CSX, UP-NS, and UP-CSX—this merger would constrict those choices, create one transcontinental railroad that controls both ends of the move for half of the country's rail freight, and make it impossible to have a level playing field. When a merger this massive threatens our customers, we feel it is our responsibility to speak up—staying silent is not an option.

4. To justify their combination, UP and NS identify certain proposed benefits that are primarily focused on the creation of significant volume growth by converting over-the-road truck traffic to rail. I know from my experience that prior mergers have not produced truck conversion growth and, in fact, rail has lost 3% market share to truck since the last round of major Class I mergers in the 1990s. Moreover, my experience has proven that the intermodal rail growth that has happened is the result of commercial partnerships, operating focus, and smart investment, not mergers. Indeed, intermodal has grown significantly for both BNSF and UP since 2023 and is accelerating this year. It is expected to continue for the foreseeable future, even though no merger has occurred.

5. For these reasons, BNSF opposes the merger, as do many organizations representing broad coalitions of freight rail customers. BNSF seeks to maintain a

competitive, efficient, and resilient freight rail network that benefits the customers we serve and the communities in which we operate.

6. The Board should reject the proposed merger. If the Board does permit the merger, it must impose meaningful and unprecedented structural conditions that attempt to partially mitigate the impact of UP's increased market power and the imbalance in the industry that results from having one transcontinental railroad and several smaller regional railroads. To be clear, I do not believe the proposed conditions could or would fully address the harms of the proposed merger. Today, shippers are protected by structural competition: independent railroads that must compete for their business every day. Once that structure is gone, it is gone permanently, and what remains is regulatory oversight attempting to replicate competition after the fact. In my experience, that is a poor substitute. Even targeted conditions imposed in prior mergers—such as the access conditions BNSF received in the UP/SP merger—have required years of enforcement proceedings to attempt to overcome UP's efforts to render them commercially ineffective. A merger of this scale would multiply that problem many times over.

7. My testimony is organized as follows. ***First***, I explain the competition that exists today among the Class I railroads and how the proposed merger would permanently reduce competition. That loss of competition is paramount to the Board's consideration.

8. ***Second***, I share the customer reaction to this merger. The shipper associations who have opposed the merger or expressed concern about it represent

nearly 60% of all rail cargo. Still others oppose the merger but fear the repercussions of publicly opposing it. The Board should not view shipper silence (especially in the face of such threats) as support or acquiescence.

9. ***Third,*** I explain why the benefits UP and NS claim are overstated and can be achieved without a merger. I provide examples of BNSF's recent innovative solutions that have improved our service offerings, without the risks associated with a large-scale Class I merger. These include interline partnerships and collaborations with competitor Class I railroads like NS and CSX and with intermodal partners like J.B. Hunt.

10. ***Fourth*****,** I describe the lessons of the CP/KCS merger—broken truck-to-rail diversion promises and significant competitive harm that BNSF and our customers experienced at Laredo that the Board's gateway conditions were unable to prevent.

11. ***Fifth***, I explain why the proposed merger would lead to rate increases through lost optionality, new interchange leverage, bundling, and the application of UP's historical pricing behavior to the merged customer base. I also explain why Committed Gateway Pricing (CGP) will not enhance competition (or even preserve the competition that exists today).

12. ***Sixth,*** I discuss the harms this merger would do to the U.S. rail network and supply chain, including integration risk, long term reduced resiliency, the threat to existing interline partnerships, and UP/NS control over shared assets such as TTX,

the Terminal Railroad Association of St. Louis ("TRRA"), and the Kansas City Terminal Railway ("KCT").

13. The first six sections of my statement explain why this merger should not proceed, and why the Board should deny it. In the event the Board approves the merger, it cannot be approved as UP and NS propose—there would need to be significant conditions placed on the deal to create some protection for rail customers, the rail network, and the U.S. economy. ***Seventh and eighth***, I explain those conditions.

I. THE PROPOSED MERGER WOULD PERMANENTLY ELIMINATE COMPETITION THAT EXISTS TODAY.

14. An important way that railroad competition occurs today is through routing options that involve multiple carriers. Customers seeking to move freight across the country today have four transcontinental service options: BNSF-NS, BNSF-CSX, UP-NS, and UP-CSX. Those four pairings compete every day on factors including rate, service, equipment, and innovation, and each participating railroad has a reason to perform well enough to win and keep the business.

15. That competition between myriad service pairings occurs years before a shipper tenders a shipment. Rail shippers closely evaluate their transportation options when siting new production or planning production at existing facilities across their own operations. Customers weigh whether a site is served by one or more than one railroad, and which gateways and connecting carriers it can reach. The comparable costs and benefits of a captive facility versus the pricing and service incentives inherent to an open facility at origin or destination are key considerations

for rail customers, and railroads compete vigorously to provide attractive development and geographic competition options. In my experience, customers who sited facilities on UP, NS, BNSF, or CSX networks over the last 30 years did so expecting that their east-west shipments could move over competing gateway pairings. None of them planned to lose their optionality and, for customers on UP and NS's networks, become captive to a single transcontinental carrier and subject to operational leverage on east-west shipments.

16. But that is what the proposed merger does; it reduces the four current transcontinental options to two. The UP/NS combination would become a single UP/NS system with every incentive to keep traffic on its own lines, and the BNSF-NS (and UP-CSX) pairing would substantially disappear over time. While today NS and BNSF are partners, the combined UP/NS would transition NS's partnership with BNSF to competition. For shippers in the East whose facilities are served only by NS, and for shippers in the West served only by UP, the choice of an independent partner at the other end of the move would be gone. The industry would move from a balanced system of competing transcontinental pairings to one dominant transcontinental railroad and smaller carriers competing on an uneven field. And the merged UP/NS would have every incentive to maximize capacity for its own single-line haul to the exclusion of competitors.

17. By its very design, the scale of the merger will greatly expand UP's market power. While UP and NS try to downplay this concern, it is not theoretical:

- A post-merger UP/NS would control approximately ***80% of metal-products shipments*** to and from Indiana, America's largest steel-producing state;

- A post-merger UP/NS would control approximately ***85% of intermodal shipments*** to and from Pennsylvania, home to the warehousing infrastructure supporting the 60M+ residents of the Northeast corridor;

- A post-merger UP/NS would control approximately ***70% of chemical shipments to and from Texas***, America's leading chemical-producing state; and

- A post-merger UP/NS would control approximately ***55% of farm-product shipments to and from Kansas***, one of America's most important grain-producing states.[1]

18. Beyond market share, the proposed merger could also likely eliminate up to 300 intermodal lanes (such as San Bernardino to Harrisburg) and close facilities, based on the assumption that current UP-CSX and BNSF-NS lanes will be discontinued in a post-merger world.[2] After the last major round of mergers in the 1990s, at least 90 intermodal facilities closed (including 27 UP facilities), and communities such as Marshall, Texas, and Green Bay, Wisconsin, permanently lost their intermodal access.[3] These changes could permanently reduce access and flexibility for shippers.

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[1] BNSF Railway, *Not All Market Share Metrics Tell The Same Story*, https://www.bnsf.com/ship-with-bnsf/preserve-rail-competition/Merger-Market-Share-Facts.pdf.

[2] BNSF Railway, *Costly, Unnecessary, Anti-Competitive, and Bad for the U.S. Economy* (Sept. 2025), https://www.bnsf.com/bnsf-resources/news-media/customer-notifications/pdf/2025-09-29%20BNSF%20Merger%20Position.pdf.

[3] *See* BNSF Railway, *Costly, Unnecessary, Anti-Competitive and Bad for the U.S. Economy* (Sept. 2025), https://www.bnsf.com/bnsf-resources/news-media/customer-notifications/pdf/2025-09-29%20BNSF%20Merger%20Position.pdf.

19. The harm does not stop with the shippers who lose an option on day one. Operating density is an important factor in making an interline product work commercially. If the combined UP/NS uses its leverage to force traffic to divert to its network, an independent railroad may no longer have enough volume to support the pre-existing service options, terminal investment, or interchange practices needed to maintain a competitive product. This risk falls most heavily on CSX, which would be left as the only independent eastern partner, competing on an uneven playing field and potentially losing density on certain lines as the combined UP/NS stretches its length of haul further eastward.

20. Over time, lower density can lead to reduced service and exit from routes, further reducing competition. This has already happened as a result of the CP/KCS merger, where CPKC's foreclosure of the Laredo gateway led BNSF to no longer invest in service to Robstown, where Laredo-bound traffic was interchanged. History offers similar cautionary tales: After the BN merger, Milwaukee Road lost the traffic and capital base needed to reinvest and ultimately filed for bankruptcy, despite receiving western gateways as a merger condition.[4] Southern Pacific weakened in the face of a merged BN/SF and UP before being absorbed by UP, despite receiving significant trackage rights as a merger condition.[5] Non-merging railroads

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[4] *See Burlington N., Inc.-Purchase (Portion)-Chicago, Milwaukee, St. Paul, & Pac. R.R. Co.* (Richard B. Ogilvie, Tr.), 363 I.C.C. 298, 1980 WL 14101 (I.C.C. 1980); Adam Burns, *Milwaukee Road: Map, Electrification, Logo, History*, American Rails (last updated Oct. 26, 2026), https://www.american-rails.com/milw.html.

[5] *See* Union Pacific, *Chronological History*, https://www.up.com/about-us/history/chronology.

may not be able to maintain the same traffic and capital base as a merged UP/NS, creating a possibly fatal gap between the carrier's investment and what competition requires.

21. Notably, the mergers in the 1980s and 1990s occurred in a very different environment than what exists today. At one time, many railroads did not have adequate revenue and could not make the investments the network needed. In fact, in the late 1980s, SF itself was nearly bankrupt. While mergers in that era may have reduced competition, they helped railroads reach the financial footing needed to sustain investment in a key mode in the nation's supply chain. The industry has now stabilized and rationalized, and that "failing firm" reasoning does not exist today.

22. The harms that will result from a UP/NS merger are not just limited to transcontinental traffic travelling on the Class I railroads. A combined UP/NS would gain greater breadth across local eastern and local western traffic, which increases the traffic over which to exercise its leverage and pricing strategies. While many shippers prefer to preserve optionality and competition, UP/NS may make that optionality costly, including by bundling local traffic with transcontinental traffic. The result will be lessened competition on local east and west traffic as well, and that harm will fall most heavily on shippers.

23. All these outcomes can be avoided here. The rail industry is strong today, and the strength of the current competition keeps it that way. The Board should foster an industry that protects reliability and safety, preserves cost efficiency, and advances customer-centric investment. Customers want those benefits—they do

not want, nor have they asked for, a mega-merger that permanently reduces competition.

II. CUSTOMERS DO NOT WANT THIS MERGER.

24. I interface with rail customers on a regular basis, and over the past year, we have often discussed their views of the merger. The vast majority of those customers have told me they oppose the merger. This feedback is consistent with the number of customers who, either themselves or through their trade associations, have publicly opposed the merger in writing, including through submissions in this proceeding.

25. Many more customers oppose the merger but have not submitted statements. Many customers have told me they are hesitant to publicly oppose the merger, particularly where they are captive shippers on a UP or NS network. They are hesitant to publicly oppose the merger because of either near-term business consequences (like overt retaliation and rate increases) or foreclosure of future rail opportunities. Consistent with this feedback, {{ [redacted] }} of attendees at our 2025 Industrial Supply Chain Summit were apprehensive about expressing opposition to the merger.

26. Based on my decades of experience, customer opposition to the merger is both reasonable and rational. UP has a reputation for being assertive and leveraging its market power in commercial engagements. That reputation is part of why customers do not want this merger. A merged UP/NS would wield even more market power, weaken supply chain resiliency and customer service, create service

disruptions, and impose short- and long-term costs—all of which impact shippers and their bottom line, with little to no recourse.

27. These customer concerns are not unfounded: At the Southwest Association of Rail Shippers Annual Conference in March 2026, UP's CEO, Jim Vena, explicitly threatened that he would raise rates by "3 or 4 extra percent" for shippers who did not support the merger to "teach [them] a lesson."[6] The only thing surprising to me about Mr. Vena's statement is that he said the quiet part out loud. The Board should not read shipper silence as UP does, as a sign that a customer does not oppose the merger.[7] As my conversations show, silence often results from fear of retaliation. The Board should listen to the opposition of the trade associations who represent nearly 60% of all rail cargo and who speak on behalf of members who cannot afford to be identified.

III. UP/NS'S CLAIMED BENEFITS ARE OVERSTATED AND CAN BE ACHIEVED WITHOUT A MERGER.

28. The railroad industry today is strong and poised for significant growth across multiple sectors in coming years. A merger is not needed to achieve this growth. I believe the best approach for our rail industry to grow involves working collaboratively with customers, other railroads, ocean carriers, trucking companies,

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[6] Stop the Rail Merger, *Here's the Video Union Pacific Didn't Want You to See,* (Nov. 6, 2026), https://www.youtube.com/watch?v=7B-yAMzTz3Q&t=3143s at 52:23.

[7] Kenny Rocker, Union Pacific, *Silence Is Not Opposition* (Oct. 6, 2026), https://www.up-nstranscontinental.com/letters/rocker-customer-support/ ("A customer who has stayed quiet, or who has taken a neutral position publicly, is not a customer who opposes this transaction – even if they belong to an association who has. . . . . We do not read silence as opposition, and neither should anyone else.").

and other stakeholders; and developing creative and innovative ideas. The UP/NS merger would drain the incentives that promote this collaboration and innovation, and every action that removes competition from supply chains is a one-way street that harms shippers, and, ultimately, the American consumer.

29. UP and NS emphasize the improved speed that they claim will follow from the creation of single-line service in this merger. They say that their single-line service will allow products to move faster, but they make no promises that increased speed will result in lower prices. Speed matters to many customers, but to significantly varying degrees depending upon what they are shipping. For nearly all our customers (intermodal and carload alike), what matters most is reliable and consistent service because speed alone is largely worthless. The rail industry is part of a supply chain that needs to move in sync. For many of our customers, that means the product needs to arrive on time so customers can coordinate the other necessary logistical components of their supply chain. For instance, our intermodal parcel carrier customers need containers to arrive on time to make their sort cut-offs, and our export grain shippers need trains to arrive on time to load previously scheduled ocean vessels.

30. UP and NS also claim that the single-line service that will result from the merger will eliminate interchanges and reduce transit time, but these claims greatly inflate existing interchange times and the purported benefit of single-line service. Mr. Vena touted as part of the merger announcement: "We will remove touch points and every time there's a touch point, you add 24 to 36 hours, even at the best,

while you're switching the rail car. That's gone. On top of that, at the interchange points, where we used to stop and hand off, those are removed. So every customer that today when we are finally approved . . . we're going to cut a day or two off of every transit time."[8] The Rocker-Elkins verified statement submitted on behalf of UP/NS further claims that interchanges can add 24 to 48 hours of dwell time.[9] UP/NS's truck-to-rail diversion models assume that a railcar spends 22 hours at each interchange.[10]

31. In my experience, BNSF's interline traffic spends far less time interchanging than UP claims. For instance, our intermodal interchanges with CSX and NS in Chicago are designed to be step-on, step-off trains, with our interchange with CSX taking about 30-45 minutes. On our run-through intermodal service between Los Angeles and Northwest Ohio, our run time to Amarillo is effectively the same as the interline portion from Amarillo to Northwest Ohio. In other words, we are getting the same efficiency through the Chicago interchange as we are through our single-line segments. For most traffic, a well-run interline handoff can be run quickly and costs almost no time compared with single-line service, especially since single-line service still requires crew changes, intermediate safety inspections, classifications, and other work events. Our current ability to provide interline service

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[8] Norfolk Southern Corp. Q2 2025 Earnings Call (July 29, 2025), https://www.sec.gov/Archives/edgar/data/702165/000119312525168365/d943261d425.htm.

[9] Apr. 30, 2026, Am. App. Vol. 1 p. 294, Rocker/Elkins VS ¶ 50.

[10] Sep. 4, 2026, Am. App. Vol. 2 pp. 416, 527, Hunt VS.

products that already rival the claimed benefits of single-line service can be achieved without a merger.

A. BNSF Works with Other Railroads and Other Providers to Provide Customers with Reliable and Predictable Service That Rivals the Single-Line Service UP/NS Tout.

32. BNSF, like other Class I railroads, including UP and NS, already partners with other railroads and providers to give customers reliable, predictable, and efficient service options across the country. Current expedited rail services match what we observe as demand; only about {{ [redacted] }} of our intermodal volume is expedited. Our partnerships demonstrate that speed is available ***now*** if that is what a customer values in their supply chain. A merger is not needed to realize the benefits UP and NS say can only come with a merger.

33. BNSF has grown intermodal volumes in ways that UP/NS say are only available through merger. As one key example, J.B. Hunt and BNSF offer Quantum, a service launched in November 2023. Quantum is a joint intermodal service designed to attract the most service-sensitive highway freight to rail. An integrated team of J.B. Hunt and BNSF staff work together at the BNSF headquarters in Fort Worth, Texas to run the Quantum operations. Quantum delivers "white glove" consistency, agility, and visibility for service-sensitive freight.

34. Quantum boasts over 95% on-time delivery, a 60% reduction in carbon footprint versus long-haul trucking, and 24/7 door-to-door oversight.[11] A few examples of Quantum's logistical successes include:

- ***Rail and Drayage Priority***: When a train was late coming into Stockton, CA, the Quantum team reworked the train spot plan to enable on-time delivery. Drivers waited trackside for the Quantum units to be unloaded, and they made on-time deliveries.
- ***Service Interruption Mitigation***: When extreme cold temperatures and a derailment slowed rail traffic, Quantum units were upgraded to Expedited at no cost to the customer. Quantum units moved 50 hours faster than standard units and performed 10% better on door-to-door service.

35. Quantum is one of BNSF's best highway-conversion products, and its success is reflected in the data: We have experienced significant year-over-year growth with our Quantum product, with year-to-date volumes nearly doubling last year's volume. Our success with Quantum allowed us to launch a similar partnership that adds in FXE so that we could offer lanes to/from Mexico.

36. Services like Quantum leverage the shared expertise and unique integrated operations of BNSF and J.B. Hunt. The value of Quantum arises from the creation of seamless service between truck and rail for customers. For the service-sensitive freight that often travels on Quantum, the handoff that decides whether a shipper uses rail is the handoff between truck and rail at the beginning and end of each move—not the interchange between two railroads. Quantum closes that gap, and it is that partnership between truck and rail that delivers premium value to

[11] BNSF Railway, *Quantum*, https://www.bnsf.com/ship-with-bnsf/intermodal/quantum-services/quantum-services.html.

shippers and that cannot be replicated by simply merging two railroads. A UP/NS merger would remove the handoff between two railroads, but unlike Quantum, it would not remove the gap between truck and rail. Partnerships with trucking companies—not mergers between two railroads—are the precise types of collaborations that move service-sensitive freight off the highway.

37. Other new intermodal services have similarly been launched across the rail industry since 2023, including:

- ***Falcon Premium***: A partnership between UP, CN, and FXE launched in May 2023. [12]
- ***Louisville gateway***: UP and NS partnered to offer lanes from Louisville via Kansas City to Los Angeles, Portland, Salt Lake City, and Houston. Notably, this partnership was announced after the merger agreement. [13]
- ***UP-CN Agreement***: A partnership between UP and CN launched in July 2026 impacting the Chicago bypass and Memphis-Eagle Pass. [14]
- ***CSX-CPKC Southeast Mexico Express***: A partnership between CSX and CPKC launched in December 2024 to link the Southeast with Texas and Mexico. [15]

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[12] Union Pacific, *Falcon Premium – Our New Best-in Class Intermodal Service* (May 1, 2023), https://www.up.com/customers/announcements/premium/allpremium/PR2023-47.html.

[13] Union Pacific, *New Union Pacific and Norfolk Southern Intermodal Gateway Expands Market Access* (Sept. 15, 2025), https://www.up.com/news/growth/louisville-intermodal-service-it-250915.

[14] Union Pacific, *Union Pacific and CN Announce Agreement to Improve North American Rail Connectivity* (July 22, 2026), https://www.up.com/press-releases/growth/up-cn-connectivity-260722

[15] CSX Transportation, *CSX, CPKC Create Faster Freight Solutions with Southeast Mexico Express* (July 21, 2025), https://www.csx.com/index.cfm/about-us/media/press-releases/csx-cpkc-create-faster-freight-solutions-with-southeast-mexico-express/.

38. Growing volumes through innovative service partnerships is not exclusively an intermodal phenomenon. For example, one-third of BNSF's carload freight originates or terminates on a shortline, and BNSF introduced our Shortline Select program in 2024 to create closer coordination that effectively eliminates any distinction a customer feels between BNSF and its first- or last-mile shortline carrier and diverts carload traffic from truck to rail. Volume in the program has steadily increased since its inception, with over {{ [redacted] }} carloads of business won. {{ [redacted] }} of our participants have set new volume records since joining the program, and we have seen a {{ [redacted] }} improvement in car dwell over the last 12 months for participants.

39. BNSF frequently collaborates with other Class I railroads. We have long-standing partnerships with both CSX and NS that have spanned decades and allowed us to operate two run-through trains per day on certain of our interline intermodal routes, such as Los Angeles to New York and Los Angeles to Northwest Ohio. We have also collaborated with NS for decades to support other intermodal routes from Southern California to the Northeast. In April 2025, we announced a collaboration between BNSF, Norfolk Southern, and the Northwest Seaport Alliance (NWSA) to redesign and develop a 3-day faster service product for inland point intermodal traffic from the Pacific Northwest to NS-served markets in the East via interchange in Chicago. This plan encompasses the NWSA building trains in less than 2 days dwell off the dock, with the density to seamlessly connect to and through Chicago. BNSF and NS deliver all interchange traffic to one location for a single crew

swap, then move toward NS's inland markets in the east. These seamless hand-offs were designed to reduce transit time by ~ 3 days and enabled better consistency for cargo shippers. This partnership resulted in the total time from the Pacific Northwest gateway from ship to Chicago at 6 days, which was the fastest ship time from any Pacific Northwest gateway in North America.[16] As Norfolk Southern's Vice President of Intermodal Automotive Commercial, Shawn Tureman, explained at the time: "By collaborating with BNSF and the Northwest Seaport Alliance, we're offering a faster, more reliable rail option that helps shippers reduce transit time, cut costs, and streamline supply chains heading into 2025 and beyond."[17] This is one example, among many, of the collaborative approach that can expand and improve service for customers without a merger. But these are also the exact type of collaborations with NS that could be threatened by the UP/NS merger and remove optionality and innovative services for customers.

40. BNSF and NS also frequently interline for coal shipments from the Powder River Basin in Wyoming and Montana to power plants in the Southeast. Southern Company's Plant Scherer, near Juliette, Georgia, is a good example. For more than two decades, BNSF has hauled Powder River Basin coal from mines in Wyoming to Memphis.[18] There, it interchanges with NS, which delivers the coal to Plant Scherer. The two railroads have built an efficient run-through operation for

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[16] Ex. 1, BNSF Railway, *BNSF, NS, NWSA Redesign Faster Service From PNW to Chicago & Beyond*.

[17] Ex. 1, BNSF Railway, *BNSF, NS, NWSA Redesign Faster Service From PNW to Chicago & Beyond*.

[18] *See* Ex. 2, RailPrime, *BNSF Lands Long-Term Coal Contract With Georgia Power* (May 21, 2002).

this traffic. BNSF locomotives stay with the train for the entire trip, so the train does not have to be broken up or re-powered at Memphis. Historically, {{ [redacted] }} unit trains a day have been unloaded at the plant. Our Scherer service is currently doing well: Over the last year, we had an average delivery-to-nomination rate of {{ [redacted] }} and an average cycle time of about {{ [redacted] }} hours. That route is competitive: We aggressively compete with UP to win Southern Company's coal business. After the merger, UP, which also serves the Powder River Basin, would control the eastern end of that move and would have every incentive to favor coal originating on its own lines.

41. Our intermodal partnerships with CSX are additional prime examples of ordinary operating changes and cooperation between independent railroads that can improve service without a merger. We have partnered with CSX for decades, dating back to 2001 when we launched an intermodal service between Los Angeles and San Bernardino to Atlanta to more effectively compete with UP. That partnership has expanded over the years to cover a number of destinations in the East. For instance, in August of 2025, we announced a partnership with CSX that offered our customers enhanced, coast-to-coast, direct domestic intermodal products between Southern California and the Southeast, including Charlotte, North Carolina, and Jacksonville, Florida. [19] That partnership had been in the works for months preceding the merger announcement. We have also introduced new international

[19] CSX Transportation, *CSX, BNSF Announce New Intermodal Service, Offering Seamless Coast-To-Coast Rail Solutions* (Aug. 22, 2025), https://www.csx.com/index.cfm/about-us/csx-bnsf-announce-new-intermodal-services-offering-seamless-coast-to-coast-rail-solutions/.

intermodal services that connect Kansas City with marine terminals at the Ports of New York and New Jersey and Norfolk, Virginia, for import and export containers.[20] And we've followed with faster schedules from L.A. into the Ohio Valley and Northeast—taking anywhere from 24 to 52 hours out of transit. By coordinating the movement of traffic, schedules, interchange arrangements, and customer-facing service, independent carriers can create a useful and competitive interline product. That experience demonstrates that better service does not require one railroad to own every portion of a route, while still allowing customers to enjoy seamless, cross-country service.

42. Our partnerships with CSX have continued to grow in recent months, which shows that interline railroads can compete and innovate without a merger. Just last month, in October, we announced another partnership with CSX to launch a premium intermodal train between Los Angeles and CSX's terminal in South Kearny, New Jersey, that will run 7 days a week, on a 100-hour schedule.[21] This route is a point-to-point product serving one CSX terminal, and it does not reach the NS intermodal terminals in Pennsylvania. We launched this partnership in response to increased demand, expanding the expedited train we would run on that lane during

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[20] These services complement our interline service with NS; they do not replace it. They reach markets and customer segments that are different from the domestic intermodal traffic BNSF moves with NS to and from Pennsylvania terminals such as Harrisburg, Rutherford, Bethlehem, and Pittsburgh. CSX cannot reach those terminals, and its nearest facilities are too far away to be a practical substitute for many customers.

[21] Bill Stephens, *BNSF and CSX team up for faster coast-to-coast domestic intermodal service*, Trains (Oct. 19, 2026), https://www.trains.com/pro/freight/intermodal/bnsf-and-csx-team-up-for-faster-coast-to-coast-domestic-intermodal-service/.

peak seasons. The key selling point of this route is consistency and reliability, although the transit time shaves 26 hours off our prior interline offering with CSX announced in November of 2025.[22] Even with interchanges, our route from Los Angeles to South Kearny rivals the 95-hour routes that UP and NS advertise will be available post-merger between Los Angeles and Croxton, New Jersey.[23] We expect this service to convert at least {{ [redacted] }} intermodal units over the next year.

43. Our partnership with CSX complements, but does not replace, our Northeast intermodal service with NS. The CSX service is built mainly around the Southeast and the Ohio Valley, plus selected lanes into CSX's own terminals. Today, by contrast, the large majority of BNSF's Northeast intermodal traffic moves with NS and terminates at NS terminals such as Harrisburg.

44. No matter whether it is intermodal or bulk / merchandise shipments, the key factor for successful interline partnerships is how well the network is planned, integrated, and executed. Our work with CSX and with NS proves it. We operate the industry's fastest transcontinental direct trains between Southern California and New York. That is, we have invested the time, focus, and innovative solutions to rival the benefits of single-line service that UP and NS claim.

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[22] Bill Stephens, *BNSF and CSX team up for faster coast-to-coast domestic intermodal service*, Trains (Oct. 19, 2026), https://www.trains.com/pro/freight/intermodal/bnsf-and-csx-team-up-for-faster-coast-to-coast-domestic-intermodal-service/.

[23] Sep. 4, 2026 Am. App., Vol. 2 pp. 828, 836, Gehringer & Orr VS.

45. At BNSF, we seek to grow by improving the design and execution of services, matching service offerings to customer demand, and using existing infrastructure more effectively. That approach is why, as of 2024, BNSF's volumes had grown by 30% since our formation in 1995, while total volume across the rest of the Class I segment had declined.[24] BNSF's operating and commercial changes produce meaningful growth without combining two Class I railroads.

B. The Value of Promised Efficiency Gains to the Customer Is Overstated.

46. Just as interline service already rivals the single-line benefits UP and NS claim, the efficiency gains they promise are overstated, and there is no reason to expect those gains to flow down to customers in the form of lower rates.

47. The real driver of efficiency is not the availability of interline versus single-line service; it is density. Airlines offer a useful comparison. An airline consolidates connections through its hubs to build enough density to fill its planes. There may not be enough passengers from Ames, Iowa, to fill a plane to Memphis, Tennessee, but there are enough passengers from Chicago. Gateways serve that same function and allow low-density shippers to receive more frequent rail service and pool their volumes together to fill a shared train. The combination of two railroads would not solve this density issue.

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[24] Written Testimony of Tom Williams, *Growth in the Freight Rail Industry*, EP 775, Doc. No. 308668 at 1 (STB entered Aug. 30, 2024).

48. The history of railroad mergers also shows that proponents often overstate the operational improvements and benefits they expect to achieve. Forecasts do not account for integration problems, congestion, customer reactions, or the time required to stabilize a combined network, all of which can cause system-wide issues. The UP/SP merger in the late 1990s is a prime example. The applicants in that transaction made significant service and truck-to-rail conversion projections, but the results never matched those projections. Instead, the UP/SP merger produced a service crisis that ended up costing shippers an estimated $100 million per month.[25] And, in the last major round of rail mergers, Class I railroads ***lost*** approximately 3% market share to the highway.

C. The Merger's Assumed Truck Conversions Are Unrealistic.

49. The same overstatement runs through to UP and NS's truck conversion forecast. UP and NS have predicted that they will divert approximately 1.2 million intermodal units and 191,000 carloads from truck to rail annually (and that those diversion estimates will be fully phased in three years after the merger).[26] This number is unrealistic for several reasons.

50. The predicted truck-to-rail diversions fail to account for the realities necessary for these diversions to occur. Beneficial cargo owners operate complex

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[25] Ex. 3, Bloomberg, *Union Pacific's Slow-Motion Train Wreck: Merger Mayhem* (Aug. 5, 1998); Ex. 4, BNSF Railway, *The Case Against The UP-NS Merger*; UPI, *Texas Official: Union Pacific in Crisis* (Oct. 27, 1997), https://www.upi.com/Archives/1997/10/27/Texas-official-Union-Pacific-in-crisis/5782877928400/.

[26] Sep. 4, 2026 Am. App., Vol. 2 p. 405, Hunt VS § 2.3, Ex. 2-4.

supply chains that require careful planning before substantial volumes of their traffic can be converted from truck to intermodal rail. BCOs also need time to adjust their equipment, inventory, production plans, and facility investments such that once they have changed modes, they don't switch back quickly.

51. UP and NS also do not account adequately for the infrastructure required to handle the intermodal unit growth they project. For instance, for container and chassis investments, unit costs are generally $3,000 to $15,000 per container and $12,000 to $20,000 per chassis. UP and NS's projected diversions could require more than $1.5 billion in total container and chassis investment. To meet the 1.2 million intermodal units that UP/NS project they will divert from truck to rail, UP/NS will need a lift capacity of about 2.4 million. The combined UP/NS lift capacity is currently about 15 million lifts. That means UP/NS need about a 15% increase in lift capacity—costing anywhere from $1-2 billion and months (if not years) of permitting—to handle their projected truck-to-intermodal rail diversions. I doubt that UP/NS have enough latent capacity in their network to handle this increased lift capacity without additional investment. Yet UP and NS have not addressed any of these investments or which members of the supply chain would actually make them.

52. Based on my review of the Amended Application, UP and NS's claim that existing equipment can handle their projected intermodal growth rests almost entirely on containers and ignores all other necessary investments. They estimate

that roughly 13% of approximately 373,000 domestic 53' containers are idle.[27] They conclude that this "latent domestic 53' container capacity" can absorb all the merger-related intermodal growth.[28] But latent containers still require a well slot to move by rail, and UP and NS's analysis of idle containers says nothing about how many well cars are idle or could absorb more traffic. Whatever latent capacity UP and NS identified when they set their baseline equipment needs as of 2023 is already being absorbed without a merger: Their intermodal containers grew by approximately 17% (UP) and 9% (NS) between October 2025 and October 2026, so less capacity will remain available for any merger-related diversions.[29] In addition, TTX controls—through ownership or lease—approximately 127,000 intermodal double-stack wells, a majority of wells in service across North America.[30] While UP and NS propose that they will add about 1,000 double-stack cars,[31] that supports only about 85,000 intermodal units of carrying capacity per year (or about 7% of UP/NS's projected intermodal unit diversions from truck). Given that UP/NS already rely almost

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[27] Sep. 4, 2026, Am. App. Vol. 1 pp. 311–13, Rocker/Elkins VS.

[28] *Id.*

[29] Union Pacific, *Union Pacific Railroad: Weekly Carloads and Intermodal Traffic Report Week 43*, https://investor.unionpacific.com/static-files/404a1c1b-f4cb-4884-a195-11079e831203 (reporting 17% increase in intermodal containers between Week 43 2025 and 2026); Norfolk Southern Corp., *Norfolk Southern Corporation: Weekly Merchandise, Intermodal and Coal/Coke Car Loadings (Week 43)*, https://filecache.investorroom.com/mr5ir_nscorp/1470/investor-weekly-carloads-october-2026.pdf (reporting increase of 6,531 intermodal containers (9%) between Week 43 2025 and 2026).

[30] TTX, *About TTX*, https://www.ttx.com/about/equipment/.

[31] Sep. 4, 2026 Am. App., Vol. 2 pp. 791–92, Gehringer/Orr VS ¶¶ 383–86 & Table 17.

entirely on TTX for their double-stack capacity (about 91%),[32] any meaningful intermodal growth would depend on TTX's fleet decisions, which is precisely why the TTX governance concerns I discuss below matter.

53. I also do not think UP and NS have adequately planned for the carload growth that they say will happen. UP and NS's carload growth appears to be concentrated in a small number of commodities (such as hazardous materials, chemicals, food, and primary metal products).[33] In my experience, the car supply for each of these commodities works very differently. Chemical and hazardous materials traffic typically moves in tank cars and covered hoppers owned or leased by shippers. Other commodities depend on railroad system cars or on national pools such as those TTX manages. Whether projected traffic can actually move depends on which of these sources must supply the cars. I have not seen any information from UP or NS whether they will make use of private and rail-controlled equipment to facilitate this growth,[34] which indicates to me that the cars needed to carry UP and NS's projected carload traffic may not be available.

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[32] *See, e.g.*, 2025 Union Pacific Corp. Form 10-K at 74, https://investor.unionpacific.com/static-files/a2cb1cb7-48df-4487-bac5-fa0ba9cdbd03 (disclosing "TTX car hire expense of $447 million in 2025"); 2025 Norfolk Southern Corp. Form 10-K at K65, https://app.quotemedia.com/data/downloadFiling?webmasterId=101533&ref=319762227&type=PDF&symbol=NSC&cdn=df3a5b65e8b0b24ee25414160eb23a21&companyName=Norfolk+Southern+Corporation&formType=10-K&dateFiled=2026-02-09 (disclosing $316 million in "[e]xpenses incurred for use of TTX equipment").

[33] Sep. 4, 2026 Am. App., Vol. 2 pp. 459–60, Hunt VS § 6.3.1, Ex. 6-5.

[34] *E.g.*, Sep. 4, 2026 Am. App., Vol. 1 p. 589, Boyles/Mathur VS.

54. Beyond the issues with UP and NS's lack of adequate container and chassis investment, I understand that a substantial portion of UP and NS's forecasted truck-to-intermodal diversions occur on post-merger lanes where rail is equally or more expensive than truck. I don't agree with that assumption; I don't know of many (if any) shippers who are going to convert from truck to rail if rail is more expensive than truck, no matter who owns the railroad. In my experience, rail must be meaningfully cheaper (generally at least 20%) than truck to convert units from truck to rail. A shipper considering a mode change does not look just to whether a single-line route exists. Instead, shippers will compare the full door-to-door cost (especially drayage cost) and service offering, not merely the existence of a single-line rail route. If rail is not economically competitive before the merger, UP and NS have not explained why changing ownership would cause that traffic to move to rail.

55. I also understand that UP and NS's claimed truck-to-rail benefits are concentrated in a small number of lanes rather than broadly distributed across the network. Those discrete services could be offered through commercial coordination, targeted operating changes, or focused investments without a merger. To the extent that the remainder of the claimed growth is assigned to lower-volume lanes, it may not have the requisite infrastructure or be able to generate enough traffic in the first place to support the required density and frequency to receive service. Without sufficient volume to build reliable blocks and schedules, a nominal single-line route will not necessarily produce an attractive intermodal product. And to the extent that UP/NS does not plan on putting these diverted volumes onto a new single-line train,

and instead plans on putting them on existing trains, then that service is available today, without a merger.

IV. THE CP/KCS EXPERIENCE IS AN EXAMPLE OF UNREALISTIC GROWTH PROJECTIONS AND INEFFECTIVE GATEWAY CONDITIONS.

56. The Board does not need to rely on forecasts alone to test UP/NS's claims. The most recent major rail merger gives the Board a real-world test of the same type of claims UP/NS make here. The results since then should inform how the Board weighs UP/NS's promises—on diversions and on the adequacy of open-gateway commitments.

57. ***First***, CP/KCS's diversion predictions were not fulfilled. CP and KCS predicted approximately 64,000 annual truck-to-intermodal diversions. But CPKC has achieved less than half of that target since the merger was approved in early 2023, reaching approximately 23,000 truck-to-intermodal diversions in the most recent year.[35] CPKC reached roughly 10% of its intermodal conversion target in year one and 15% by year two (for context: UP/NS assume 40% by year one, 70% by year two, and 100% by year three).[36] The shortfall between CPKC's prediction and the result is significant. CPKC's promised annual diversion number is a small fraction of the 1.2 million truck-to-rail intermodal unit diversions promised by UP and NS,

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[35] CPKC-55, FD 36500-6 (STB entered Jan. 15, 2026); CPKC-63, FD 36500-6 (STB entered July 15, 2026).

[36] CPKC-8, FD 36500-6 (STB entered Jan. 16, 2024) (Traffic Diversion Submissions) (later amended by CPKC-15, FD 36500-6, App. A); CPKC-15, FD 36500-6 (STB filed July 15, 2024); CPKC-27, FD 36500-6 (STB entered Jan. 15, 2025); CPKC-40, FD 36500-6 (STB filed July 15, 2025).

which is more than 50 times the ~23,000 diversions CPKC achieved in the most recent year. UP/NS forecasts about 19 times as many truck-to-intermodal diversions as CP/KCS did (roughly 1.2 million vs. 64,000 units), even though the combined UP/NS is only about three times the size of CPKC (in terms of transaction size). Adjusted for that size difference, the UP/NS forecast is still more than six times as aggressive as the CP/KCS forecast, which CPKC has yet to meet.

58. ***Second***, CP/KCS's single-line claims did not materialize. CP/KCS pointed to the competitive opportunity of North-South single-line service that only its merger could unlock. In the first year after the merger closed, CPKC's intermodal volume grew less than its peers', while UP grew by approximately 11% and NS approximately 7%—without a merger.[37]

59. ***Third***, open-gateway conditions failed to prevent competitive harm. At the time of the CP/KCS merger, BNSF and other parties warned that CPKC would have both the ability and incentive to move away from KCS's existing partnerships for interline service over the Laredo gateway in favor of CPKC's new single-line service into Mexico. UP itself warned that CP/KCS "would face enormous post-merger pressure to divert traffic from existing KCSM interline service to CPKC

[37] 2024 Canadian Pacific Kansas City Limited Form 10-K, https://www.sec.gov/Archives/edgar/data/16875/000001687525000008/cp-20241231.htm. (disclosing 2% intermodal volume growth between 2023 and 2024); 2024 Union Pacific Corp. Form 10-K, https://www.sec.gov/Archives/edgar/data/100885/000010088525000042/unp-20241231.htm (claiming 11%growth in intermodal revenue carloads between 2023 and 2024); 2024 Norfolk Southern Corp. Form 10-K, https://www.sec.gov/Archives/edgar/data/702165/000070216525000008/nsc-20241231.htm (claiming 7% growth in intermodal units between 2023 and 2024).

single-line service using strategies that reduce shippers' existing competitive options."[38]

60. BNSF's and UP's concerns were well-founded. Within a year after the merger closed, BNSF's intermodal traffic with CPKC fell to practically zero over the Laredo gateway. Both during and after the CP/KCS merger proceeding, BNSF sought to extend this interline partnership, which had been in place for at least seven years.[39] While the merger was pending, KCS would agree only to a {{ [redacted] }} extension and {{ [redacted] }} After the merger was approved, CPKC refused to extend the agreement altogether. My colleague, Craig Morehouse, discusses additional statistics showing that Laredo's volumes have fallen since the CP/KCS merger.

61. BNSF has since attempted to rebuild part of our lost Laredo business through Eagle Pass, but shippers lost a competitive option and lost BNSF service over their historic, preferred, and most efficient gateway. In addition to the lost intermodal volume I mentioned above, we also lost volumes with several major automotive OEMs from Mexico following the CP/KCS merger. And Mexico specialty-grain customers have told us that the cost of moving traffic from Corpus Christi to Laredo adds about {{ [redacted] }} per car and makes that route uncompetitive compared with routing directly through Laredo. The fact that BNSF has pivoted does

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[38] Union Pacific Railroad Company's Comments and Requests for Conditions, FD 36500, Doc. No. 304028 (Feb. 28, 2022).

[39] Ex. 5, BNSF Railway, *BNSF and KCS Join Forces to Provide New Intermodal Shipping Service* (Nov. 16, 2016).

not change the fact that, once the merger was approved, the playing field was permanently tilted toward the interests of a single railroad at the expense of shippers and the public.

62. BNSF and UP sought conditions in CP/KCS to mitigate this harm, including rate-setting mechanisms requiring CPKC to offer competitive interline rates through Laredo. The Board declined to grant those conditions and instead imposed "open gateway" commitments and a process allowing an existing shipper to ask CPKC to explain any above-inflation increase for interline rates over Laredo. That safeguard has proved largely useless in practice because it neither limits the increase nor requires CPKC to demonstrate its reasonableness absent a further challenge. The rate-setting conditions BNSF and UP sought would have been self-executing: they would have protected competition without depending on the merged carrier's good behavior or a customer's willingness to litigate. UP/NS now offer the same open-gateway commitments that failed at Laredo and that should be rejected.

V. THE MERGER WILL LEAD TO RATE INCREASES.

A. Lost Optionality & Increased Operating Leverage

63. As I explained in Section I, the merger would reduce four transcontinental options to two. That loss of optionality is the first way the merger would raise rates. When a facility is open to more than one railroad, a shipper can seek competing service or negotiate an interline or Rule 11 movement, and use those alternatives to discipline price. If the combined UP/NS removes a switching or interchange option for BNSF or another carrier, the shipper may be left with only one

practical rail option. The merger opens the door for UP/NS to convert competitive choices into captive traffic.

64. The merger would also give UP/NS leverage over traffic it does not even handle. Absent effective conditions, a post-merger UP/NS would hold 50% of the Kansas City Terminal Railway with veto power, would control dispatching over the Huey P. Long Bridge and New Orleans Back Belt, and would dominate the remaining interchange options at St. Louis and Memphis. At New Orleans in 2023, approximately {{ [redacted] }} of eastbound BNSF trains experienced dwell longer than 15 minutes at Avondale while awaiting clearance onto the UP-dispatched Huey P. Long Bridge. Control of those chokepoints is control over a rival's cost and service—and therefore can have a large influence on the rates shippers pay.

B. Bundling and UP's Pricing Record Confirm the Merger Would Raise Rates.

65. Even a facility that is not directly affected by lost optionality or increased operating leverage can be harmed through bundling. Bundling occurs when a railroad negotiates with a customer for all that customer's traffic as a package, rather than lane by lane or facility by facility. Many large shippers operate numerous facilities spread across the rail network. Some of those facilities are captive to UP, and others are "open," meaning they are served by more than one railroad or can reach a competing carrier. It is my understanding from conversations with customers over the years that when UP sits across the table from such a customer, it does not negotiate only for the captive traffic. It negotiates for the whole relationship, and it uses the customer's dependence on its closed facilities as leverage

to win the customer's traffic, and extract higher rates, at the facilities where the customer may have a theoretical choice.

66. I understand that UP is particularly focused on using these bundling practices in the Gulf Coast region where UP has been the dominant rail carrier for decades. Adding NS origins and destinations to the volume of commerce UP can "bundle" will make UP's strategy even more effective. It would provide UP with access to more captive shippers to implement their bundling practices, increase rates, and extract more profits.

67. UP has also historically increased rates faster than other Class I railroads. Across UP, NS, BNSF, and CSX, average annual price growth exceeded 5% from 2004 to 2011, 3.4% from 2012 to 2016, and 2.5% from 2017 to 2023, even as volumes were relatively flat, and UP's total volume fell 13% from 2003 to 2023.[40] I have seen nothing in the public record in which UP or NS promise to lower, or even hold, shipper rates. This leads me to believe that a merged UP/NS will increase shipper rates to pay for its merger.

68. UP tries to minimize these concerns by using a more favorable measurement for itself, ton miles¸ to say it would "only" have 40% of the market. First, whether their market share is 40% or 50% will not matter to captive shippers who are left with no effective choice all over the country. UP will control about 85% of all intermodal units moving to/from the Pennsylvania logistics facilities that serve

[40] Written Testimony of Rick Paterson, *Fading Relevance and Elusive Growth*, EP 775, Doc. No. 308733 (STB entered Sept. 16, 2024).

the Northeast corridor.[41] Second, customers don't buy ton-miles; they buy the movement of a railcar from their facility to market. In my career, no customer has ever asked me about a railroad's national ton-mile share. A chemical shipper whose plant is served only by UP/NS has 100% exposure to that railroad, regardless of the national statistic. Competition happens lane by lane, and facility by facility: it comes down to whether a second railroad can serve you and provide a competing price.

C. Committed Gateway Pricing Will Not Enhance Competition.

69. I understand that the STB requires UP and NS to show that the proposed merger will "enhance" competition and not merely preserve it. I further understand that enhanced competition includes things like granting new trackage rights, establishing joint/shared access areas, and removing paper barriers. To alleviate concerns about their combined market share, UP and NS argue that the merger will enhance competition through their proposed Committed Gateway Pricing ("CGP").

70. I do not believe CGP adequately addresses competitive concerns caused by the merger, and I do not believe that it enhances or even preserves competition. Instead, it appears that CGP would affirmatively harm competition by raising prices for a significant number of customers. CGP provides a published, pre-set price for the UP/NS leg of certain interline moves. The rate UP/NS charges for its leg of a move is set at the volume-weighted 70th-percentile rate per car-mile it charged for

[41] BNSF Railway, *Not All Market Share Metrics Tell The Same Story*, https://www.bnsf.com/ship-with-bnsf/preserve-rail-competition/Merger-Market-Share-Facts.pdf.

comparable traffic that is not eligible for CGP. That means the proposed CGP rate is greater than or equal to what 70% of those comparable shipments pay. While UP/NS frame CGP as a competitive enhancement, the program would apply to only a small fraction of rail shipments (less than 1% of total U.S. units and about 5% of Class I interline units), it would expire after a limited period of time, and it would result in ***higher rates*** for many of the customers who are able to use it.

71. Before the merger, a shipper has negotiation options: the shipper can negotiate a Rule 11 rate with a Western carrier, such as BNSF, and an independent Eastern carrier, using the carriers' competing interests to seek a favorable through rate. After the merger, wherever UP/NS controls the only rail access at one end of the movement, the shipper will no longer be able to play an independent Eastern carrier against an independent Western carrier; it will have one railroad that controls the bottleneck and every incentive to favor its own single-line route. A Rule 11 rate quoted by that railroad is not a competitive check, and a CGP price set at the 70th percentile of UP/NS's own rates does not restore one. This structure creates upward pricing pressure and can leave the shipper worse off than it was before the proposed merger.

72. For its part, UP says that the CGP framework is similar to the I-5 Proportional Rate Agreement that BNSF and UP executed as part of the UP-SP

merger.[42] There are key differences between CGP and I-5 program that make them incomparable:

	CGP	I-5
Duration	Temporary (ends after the Board's oversight period)	Permanent
Pricing	Uses 70th percentile rate	Uses average rates for traffic moving pursuant to the I-5 agreement
Fees	Additional fees permitted (such as fuel surcharges)	Included
Route Exclusions	Routes not touching Chicago, St. Louis, Memphis, or New Orleans	None
Traffic Exclusions	CGP excludes multiple categories of traffic, including intermodal traffic	Does not exclude any categories of traffic from the facilities covered by the agreement
Line Divestiture	No line divestiture or trackage rights	Line divestiture and trackage rights

73. As the above table makes clear, the CGP and I-5 programs are plainly different in key technical respects, and it is misleading to treat them as comparable programs. The I-5 Agreement was different in another key respect—it was one piece of a larger negotiated merger-related package that included various pro-competitive elements including, among other things, the sale of certain lines and granting of trackage rights over others. CGP is not part of a larger, pro-competitive package deal

[42] Sep. 4, 2026 Am. App., Vol. 1 p. 351, Rocker/Elkins VS ¶¶ 174.

that might influence how one considers its obvious and fatal flaws. Put simply, the I-5 Agreement worked because it was part of a permanent structural solution that gave a competing railroad real access to the corridor. CGP borrows from I-5's pricing formula, sets the rate at a higher level, reduces its scope, and puts an expiration date on it. It is not the same program, and it should not be credited with the results I-5 achieved. UP/NS's merger harms do not stop at rates, though. As I explain in the next section, they would extend to the rail network and supply chain as a whole.

VI. THE MERGER WILL HARM THE U.S. RAIL NETWORK & SUPPLY CHAIN.

A. This Merger Will Weaken the U.S. Supply Chain.

74. The proposed merger will weaken the supply chain by giving one railroad control over the shared assets on which other railroads rely. Jointly owned terminal railroads and equipment pools allow BNSF and other railroads to combine their networks, offer customers competing routings, and respond to changing demand. Absent effective conditions, a merged UP/NS would hold approximately 57% of TTX; 50% of KCT, with veto power over decisions affecting dispatch within the gateway and along a critical stretch of BNSF's Southern Transcon; and a controlling position in TRRA. UP/NS have now committed to relinquish controlling stakes in these companies, but we have seen no definitive agreement for that remedy. Control of TTX could allow UP/NS to influence railcar capacity, investment, and allocation decisions to favor its own traffic. Control of KCT and TRRA could allow UP/NS to influence dispatching and interchange at two of the most important gateways in the country. These are not peripheral assets—they are the connective tissue of the

national network. I discuss the conditions needed to compete and provide resilient service below.

75. Further, the merger would weaken the competitive incentives that currently support service quality and investment. Today, multiple Class I railroads and interchange pairings create pressure for railroads to maintain service quality, invest in commercially attractive offerings, and compete for traffic across overlapping lanes. A combined UP/NS would internalize more east-west traffic and face weaker commercial discipline to win business by maintaining service quality and investing in infrastructure and offerings.

76. The proposed merger would also eliminate important operational benefits of switching between east-west partners, which bolsters the resiliency of the network. In the current market, BNSF can evaluate whether to use NS, CSX, or another interchange partner based on the customer's needs, the condition of the network, and the availability of capacity. When a major gateway or corridor slows today, BNSF can use those alternatives to reroute traffic, manage customer commitments, and reduce the effect of a localized disruption. After the merger, NS would no longer be an independent partner for BNSF, and that flexibility would be materially reduced.

77. The integration itself would add near-term risk on top of these long-term effects. As Ms. Farmer explains, no major rail merger—including UP/SP and CP/KCS—has been implemented without serious integration problems.

78. UP and NS paint a rosy picture of their post-integration plan, largely ignoring the challenges that they would face with such a large-scale integration effort. But there is no question that integration will be a multi-year, all-hands effort. Combining two Class I networks means merging dispatching, IT systems, labor agreements, and other core business functions that will consume years of capital and effort. It is hard to imagine that these efforts will not come at the expense of service and given the interconnected nature of our national rail network, service integration problems on the UP/NS network would have significant impacts on all other Class I railroads.

79. I have seen this firsthand with the CP/KCS merger. In the spring of 2025, CPKC moved the former KCS territory onto CP's IT systems. Data problems during that cutover caused CPKC to lose track of where cars were, and the delays and service failures that followed lasted for months. Local service in CPKC's southwest and southeast regions decreased, and the Board stepped in and required CPKC to submit a service action plan. BNSF and our customers bore the consequences. We faced significant delays at key interchanges, including New Orleans, and cars came to us misrouted or improperly billed, including hazardous materials shipments. From June 2 to 4, 2025, we had up to {{ [redacted] }} cars staged at Tupelo, Mississippi. The Tupelo backlog cut off {{ [redacted] }}

80. New Orleans showed the same pattern. New Orleans is a gateway that is served by every Class I railroad, and capacity at its key interchange points is

already strained. A UP/NS integration failure there would likely be far larger than CPKC's, and the effects would reach shippers on every railroad that touches its network, not just UP/NS customers.

B. This Merger Will Threaten and Impair Partnerships.

81. The merger also threatens the interline partnerships that carry thousands of interline shipments on BNSF-NS lanes today. Take, for example, BNSF's intermodal traffic destined for the Pennsylvania intermodal market in the Northeast corridor. Approximately {{ [redacted] }} of all of BNSF's Chicago interchange units travel via NS's interline service to Harrisburg, Pennsylvania. In a post-merger world, that NS interline option will be eliminated for BNSF over time, leaving fewer competitive route options and less leverage over rates and service.[43]

82. BNSF cannot simply replace its partnerships with NS with CSX because CSX's routes to the area are less efficient and its destination intermodal facilities are located further away from key warehousing infrastructure. The Pittsburgh area, central Pennsylvania, and Lehigh Valley—served by NS's intermodal terminals at Harrisburg, Rutherford, Bethlehem, and Pittsburgh—are a closed NS area that CSX does not have access to. CSX's closest terminals are too far away from the region's warehousing base to be a practical alternative. For example, CSX's nearest terminal to Harrisburg and Rutherford is at Chambersburg, over 50 miles away, and its nearest terminal to Bethlehem is Philadelphia, roughly 65-70 miles away. These

[43] *See BNSF Railway Co. – Trackage Rights- Norfolk Southern Corp. & Norfolk Southern Ry. Co.*, BNSF Railway Company's Responsive Application, FD 36873-33 (Nov. 18, 2026).

distances matter because in my experience, most intermodal shippers dray less than 50 miles between the rail terminal and their facilities. Customers' actual choices reflect that CSX is not a practical alternative for BNSF: In 2023, BNSF moved approximately {{ [redacted] }} interline containers to and from Harrisburg with NS, compared with about {{ [redacted] }} through CSX's Chambersburg terminal. Even though NS suffered a chassis shortage in August / September of 2026[44], that event did not cause customers to shift freight to Chambersburg, which further shows that Chambersburg is not a competitive option. These factors make CSX an ineffective competitive replacement for the lost access to NS's network.

83. This prospective foreclosure from the NS-served Pennsylvania intermodal market is similar to the foreclosure BNSF experienced after CPKC denied BNSF access to the Laredo gateway—while BNSF attempted to pivot to an Eagle Pass gateway service, the relative inefficiency of that option meant our service was not able to effectively compete for many customers who previously used BNSF service. In the NS-served areas of Pennsylvania, there would not even be a competitive alternative to pivot to, because CSX cannot reach the markets served by these terminals. That is why the Pennsylvania Intermodal Condition I describe below is necessary.

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[44] Ex. 6, Ari Ashe, *NS Chassis Shortage Disrupts Freight Deliveries in Pennsylvania*, Journal of Commerce (Sept. 3, 2026).

84. For all these reasons, the Board should deny UP/NS's merger. However, if the Board approves the merger, the conditions I describe below would be necessary to mitigate at least some of these harms.

VII. THE BOARD SHOULD IMPOSE CERTAIN GLOBAL CONDITIONS IF IT APPROVES THE MERGER.

A. Interline Preservation Mechanism (IPM) Would Be Necessary to Preserve Gateway Competition.

85. From my perspective, the key issue that the Board would need to confront in approving this transaction with conditions is that preserving competition after a UP/NS merger requires more than a commitment to keep gateways physically open. Competition exists today because independent railroads have shared commercial incentives to work together and offer customers multiple routing options. Once those railroads are merged, those incentives change, and there is a real risk that competing interline routes could be disadvantaged through pricing, service, equipment allocation, or operational decisions even while the gateway remains technically available. That is why BNSF has proposed an Interline Preservation Mechanism (IPM), which would establish transparent, objective, and predictable proportional rates based on the merged carrier's own market pricing and provide connecting carriers with the commercial certainty necessary to continue competing for traffic. Just as importantly, the IPM would include enforceable service protections to ensure that operational practices cannot be used to undermine competing routes. In my view, the IPM is designed to preserve the practical ability of railroads to compete for business, maintain meaningful routing choices for customers, support continued investment by both shippers and carriers, and ensure that competition

continues to occur on the merits of price, service, reliability, and innovation. The proposal does not guarantee traffic to any railroad or prevent UP/NS from realizing legitimate merger efficiencies; it is designed to help ensure that the competitive alternatives customers enjoy today remain real and effective after the transaction. The IPM is a network-wide floor, though, and not a substitute for targeted structural relief. Where, as in NS-served Pennsylvania, UP/NS would control both the eastern linehaul and the only intermodal terminals that serve a market (such as at Pittsburgh, Harrisburg, Rutherford and Bethlehem), a rate-and-service mechanism would still leave BNSF dependent on its principal competitors for every move and cannot replace direct access.[45] In those markets, the structural conditions I describe in the next section are necessary.

B. Open Access Would Also Address Harms Created by the Merger.

86. Likewise, the BNSF-proposed open access condition would address the concerns BNSF has heard from customers regarding the huge market power that a merged UP/NS would have. Approval of the UP/NS merger would eliminate many of the indirect competitive constraints between eastern and western railroads that exist today, particularly for customers that are physically captive to UP or NS. BNSF has proposed an Open Access condition that would give qualifying shippers served exclusively by UP/NS a permanent right to access a competing Class I railroad

[45] *See BNSF Railway Co. – Trackage Rights- Norfolk Southern Corp. & Norfolk Southern Ry. Co.*, BNSF Railway Company's Responsive Application, Ex. 12-A (J. Gabriel VS) FD 36873-33 (Nov. 18, 2026).

through nearby interchange points. Modeled on the well-established Canadian interswitching framework, the proposal would allow competing carriers to market directly to customers, quote rates, negotiate contracts, and compete for traffic as though they had direct physical access to the facility, without requiring duplicative rail infrastructure. The condition would provide durable competition by preserving access rights even if interchange patterns change over time, requiring UP/NS to continue providing switching service through the nearest feasible interchange. It would also establish transparent, cost-based switching charges that make the merged railroad whole while preventing it from using excessive access fees to raise rivals' costs or undermine the competitive option. From a commercial perspective, the proposal creates a practical and enforceable competitive alternative for captive shippers, disciplines the market power that would otherwise result from a transcontinental merger, and ensures that customers retain meaningful choices based on price, service, and innovation. If UP/NS offers the best value, it will continue to win the business; if not, customers will have a realistic opportunity to choose another railroad. Notably, though, open access is designed for individual captive shipper facilities. It does not address intermodal markets such as NS-served Pennsylvania, where the competitive harm arises at UP/NS-controlled intermodal terminals that no other Class I railroad can reach through a nearby interchange.

VIII. THE BOARD SHOULD IMPOSE CONDITIONS ON APPLICANTS' USE OF CERTAIN JOINTLY OWNED COMPANIES AND GEOGRAPHIC CONDITIONS IF IT APPROVES THE MERGER.

A. The Board Should Impose Conditions on UP and NS's Role in TTX.

87. I sit on the Board of Directors of TTX. TTX occupies a unique position within the North American freight rail system. As a jointly owned railcar pooling company, TTX manages fleets of more than 168,000 railcars used by Class I and other railroads, including intermodal well cars, autoracks, boxcars, gondolas, and other specialized equipment. Importantly, TTX controls—through ownership or lease—approximately 127,000 intermodal double-stack wells, a majority of wells in service across North America.[46] Through its pooled fleets, maintenance network, and equipment management expertise, TTX provides critical services that benefit railroads and shippers throughout the country. Its success has been built on a governance structure that balances the interests of competing railroads while ensuring that TTX operates for the benefit of the rail network as a whole rather than any individual carrier.

88. The proposed merger would fundamentally alter that balance. Following the transaction, the combined UP/NS would hold approximately 57 percent of TTX's ownership interests. In response to concerns raised by the Board, UP and NS have proposed reducing that interest to 49 percent through the mechanisms contained in the TTX Buy/Sell Agreement. Under UP and NS's proposal, TTX would

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[46] TTX, *About TTX*, https://www.ttx.com/about/equipment/.

first have the opportunity to repurchase and retire the excess shares. If TTX declines, the shares could be acquired by other railroad owners. If neither option occurs, the shares could ultimately be sold to a third party that agrees to participate in the existing ownership framework. UP and NS contend that reducing ownership below 50 percent eliminates any concern regarding control.

89. Formal majority ownership is not the real issue, however. Even at 49 percent, UP/NS would remain by far TTX's largest shareholder, with voting power exceeding that of the next several largest owners combined.

90. The current ownership interests in TTX are set forth below.

Rail Carrier Owner	Percentage
UP	37.03
CSX	19.78
NS	19.78
BNSF	17.4
CN	3.2
CPKC	2.2
FXE	0.6

91. As a practical matter, a shareholder holding nearly half of the company's equity would retain substantial ability to dominate corporate priorities, fleet investment decisions, governance outcomes, and strategic initiatives. Indeed, under UP and NS's proposal, UP/NS would need support from only one additional railroad to assemble a voting majority, while all other major railroad owners would need to act collectively to counterbalance UP/NS's position. The reduction from 57 percent to 49 percent addresses only the technical majority ownership while leaving unresolved concerns regarding practical influence and governance dominance.

92. The primary concern raised by this influence is not the current day-to-day operational access to TTX equipment, at least in the immediate term following consummation. Existing pooling agreements, car allocation rules, penalty provisions, reporting requirements, and dispute-resolution mechanisms already provide substantial protection against discriminatory equipment distribution. TTX's rules establish entitlement shares, direct equipment movements from surplus to deficit railroads, impose financial penalties for failures to release equipment, and provide oversight mechanisms to resolve disputes. These protections probably adequately protect minority owners from the danger that a dominant UP/NS could simply divert pooled equipment to itself at the expense of competitors.

93. The much more significant concern is the corporate governance of TTX. Ownership influence matters most when decisions are made regarding future fleet investments, allocation methodologies, capital expenditures, equipment procurement, governance modifications, and other policies that shape how TTX serves the industry over time. A dominant shareholder may not need to violate existing pooling rules to obtain advantages. It may instead influence decisions regarding where new capacity is deployed, which equipment types are purchased, how future allocation rules are developed, or how TTX responds to evolving market demands. Existing protections were developed in the context of a broadly distributed ownership structure and were never designed to address the incentives created by a shareholder with nearly half of the company's ownership interests.

94. UP and NS's proposed divestiture mechanisms create additional concerns. Under each alternative, UP and NS retain the economic benefit associated with the shares whose divestiture becomes necessary solely because of the merger. If TTX or the remaining railroad owners acquire the shares, those entities effectively pay UP/NS to remedy a governance concern created by the transaction itself. The railroads in position to be able to purchase those shares are the same carriers whose competitive positions will be harmed by the merger. In practical terms, competitors would be required to finance UP and NS's compliance with a merger condition while simultaneously increasing the value realized by the merging parties, without protecting the independence of TTX.

95. The alternative possibility of a sale to a non-railroad investor presents a different, but equally serious, concern. TTX has historically functioned as a cooperative enterprise because its owners are also its principal users. Railroad owners share incentives to invest in fleet growth, maintain equipment quality, and operate the company for the benefit of the rail network. A non-railroad investor would not necessarily share those objectives. Such an investor would be motivated principally by financial returns rather than network efficiency, rail service quality, or industry-wide benefits. Over time, introducing non-railroad ownership could undermine the alignment of interests that has been fundamental to TTX's success. For these reasons, governance protections that go beyond a simple reduction of UP/NS's ownership percentage would be necessary to preserve TTX's neutrality if the Board were to approve the Application. BNSF believes that the Board must condition

any approval on changes to TTX's governance structure to require a two-thirds supermajority for Board of Directors action. This condition would prevent the merged carrier from dominating TTX decision making and would eliminate the need for unanimous opposition to the merged carrier to prevent actions designed to impair its competitors.

B. The Board Should Impose Geographic Conditions on the Merger.

96. BNSF is asking the Board to condition any approval of the proposed merger on the creation of a neutral terminal railroad in the Gulf Coast region. For purposes of the condition, the Gulf Coast region extends from Corpus Christi, Texas to the west bank of the Mississippi River and comprises seven BEA economic areas: Corpus Christi, Houston-Galveston-Brazoria, Beaumont-Port Arthur, Lake Charles, Lafayette, Baton Rouge, and New Orleans. Under the condition, UP would be required to present to the Board a transaction under which a neutral terminal or switching railroad would directly serve the UP and BNSF rail-served facilities in that region and hand traffic off to the line-haul carrier of the customer's choice. The purpose of the condition is to remedy the competitive harm the merger would cause in the Gulf Coast: by extending UP's reach to both ends of many more Gulf Coast movements, the merger would give UP/NS new leverage to use bundling to raise rates on shippers throughout the region, and a neutral terminal railroad is the remedy best suited to address that harm.

97. The Gulf Coast is one of the most important rail markets in North America, and it is also one of the least competitive. Through my experience

marketing rail service in the region, I have come to understand that it is dominated by carload traffic, particularly chemicals, plastics, and petrochemical hazmat traffic. Those are products that, as a practical matter, cannot be moved economically by truck over long hauls. Based on my experience, rail is not one transportation option among many for Gulf Coast shippers. It is the only option.

98. Yet many Gulf Coast shippers have no competitive rail alternative. Their facilities are served by a single railroad, and in most cases, that railroad is UP. Closed access in the region is widespread and concentrated with UP, and there is no practical way to bring a second railroad into those facilities. The facilities captive to UP include some of the largest chemical, plastics, and energy plants in the country. At the facilities where shippers have no alternative to UP, they have little ability to push back on rates or service terms. In my experience, shippers without access to a second carrier pay higher rates than shippers that can play one railroad against another. That is true today, before any merger.

99. The proposed merger would make this problem substantially worse, and the reason is bundling. As I explained above, bundling allows a railroad to use a customer's dependence at its captive facilities as leverage to win the customer's traffic, and extract higher rates, at facilities where the customer may have a choice to be served by more than one railroad. Many of the largest Gulf Coast shippers operate numerous facilities with exactly that mix of captive and open locations.

100. This is not a theoretical concern. It is something I have seen in the market. When BNSF competes for a customer's business at its open facilities, we

often find that the customer is reluctant to move traffic away from UP, even when BNSF offers a competitive rate and service package. In my experience, it is because customers are concerned about how UP will treat them at the facilities where UP is their only option; they expect UP to take their open traffic into account when setting rates and service at their captive facilities, and that moving open traffic to another carrier risks less favorable treatment at the plants where they have no choice. In my experience, the more of a customer's business that is concentrated at UP-closed facilities, the more difficult it is for BNSF to win that customer's traffic at its open facilities, and the less pressure UP faces to price competitively there. In other words, UP's market power at captive facilities does not stay at those facilities. It spills over into locations where competition is supposed to protect the shipper.

101. The merger would dramatically expand UP's ability to exploit this dynamic. In my experience, Gulf Coast customers ship significant volumes to eastern markets, where NS and CSX compete for that traffic today. Shippers value that competition and use it in their negotiations. Post-merger, many more of those movements would be served by UP at both ends: UP at the captive Gulf Coast origin, and UP/NS at the eastern destination. Every facility that becomes UP-served at both ends of a move adds to the leverage UP brings to the bargaining table. And as UP's share of a customer's captive traffic grows, the customer's ability to walk away from UP shrinks. The result is that UP would be able to charge more not only for the new single-line traffic, but for the customer's remaining open facilities as well.

102. The Gulf Coast condition is designed to address that harm directly. As described above, UP would be required, within six months of any approval of the merger, to present to the Board a transaction establishing a neutral terminal or switching railroad to serve the UP and BNSF rail-served facilities in the Gulf Coast region. The neutral terminal railroad would handle switching, train building, and local distribution within the terminal territory, interchanging traffic to UP and BNSF at nearby hand-off points. It could be jointly owned and managed by UP and BNSF, much like PTRA, with other railroads, such as CSX and CPKC, participating as they see fit, or it could be operated by a third-party shortline or switching railroad. The proposal does not require the transfer or divestiture of existing asset ownership. Governance would give the participating carriers equal voting power, and any action with a substantial effect on operations, maintenance, or administration would require a unanimous vote. BNSF is prepared to open its own closed facilities in the region on the same basis.

103. From a commercial perspective, the importance of this structure is that it would allow BNSF, and other railroads, to quote end-to-end rates to and from Gulf Coast facilities that are closed today, and to compete with UP for the linehaul traffic on the merits. A customer with facilities throughout the region could obtain a comprehensive competitive proposal from a second railroad covering all of its Gulf Coast plants. UP would continue to win business where it offers the best combination of price and service, but it would no longer be able to use captivity at one facility to dictate terms at another.

104. In short, the Gulf Coast condition is a targeted response to a merger-specific harm. UP already holds substantial market power in the region. The merger would expand that power by extending UP's reach to both ends of many more Gulf Coast movements, and bundling would carry that power into every facility a customer operates. A neutral terminal railroad gives Gulf Coast shippers a practical means of disciplining that market power and preserves the competitive choices that the Board's merger policy is intended to protect.

105. In addition to the Gulf Coast condition, BNSF is also asking the Board to condition any approval on the Pennsylvania Intermodal Condition, which BNSF seeks contemporaneously through a responsive application.[47] That condition would grant BNSF trackage rights over certain NS lines between Chicago, Illinois and Bethlehem, Pennsylvania; require UP/NS to provide BNSF access to and use of NS's Pittsburgh, Harrisburg, and Rutherford intermodal facilities, with BNSF obtaining access to the Phoenix Rail facility at Bethlehem through a commercial agreement; and require UP/NS to provide haulage service for BNSF traffic on those lines until BNSF can establish its own service and commence operations consistent with customer needs. My colleague Jon Gabriel describes the condition in detail in his verified statement supporting that responsive application.[48] Only direct access

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[47] *See BNSF Railway Co. – Trackage Rights- Norfolk Southern Corp. & Norfolk Southern Ry. Co.*, BNSF Railway Company's Responsive Application, FD 36873-33 (Nov. 18, 2026).

[48] *See BNSF Railway Co. – Trackage Rights- Norfolk Southern Corp. & Norfolk Southern Ry. Co.*, BNSF Railway Company's Responsive Application, Ex. 12-A (J. Gabriel VS) FD 36873-33 (Nov. 18, 2026).

through trackage rights would allow BNSF to continue competing for this traffic as it does today.[49]

IX. CONCLUSION

106. The proposed UP and NS merger would be bad for shippers, bad for businesses, and bad for the American economy. It is critical that the freight rail network stays competitive, efficient, and resilient for the businesses and communities that the rail industry serves.

107. As set forth above, the Board should reject the proposed merger. However, if the Board is to accept the merger, then it should impose the meaningful conditions BNSF requests to protect competition in the rail industry.

[49] My colleague, Craig Morehouse, discusses the conditions above and others (including conditions pertaining to New Orleans neutral dispatching and the Memphis crossover) in his verified statement.

VERIFICATION

I, Thomas Williams, declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief. Further, I certify that I am qualified and authorized to make this statement.

Executed this 18th day of November 2026.

/s/ Thomas Williams
Thomas Williams
Chief Marketing Officer
BNSF Railway Company

EXHIBIT 1

PUBLIC VERSION - REDACTED

BNSF, NS, NWSA redesign faster service from PNW to Chicago and beyond



FORT WORTH, Texas, ATLANTA, Ga., & TACOMA, Wash., – BNSF Railway and connecting partners Norfolk Southern (NS) and the Northwest Seaport Alliance (NWSA) announced today a collaboration to redesign and develop a 3-day faster service product for inland point intermodal (IPI) traffic from the Pacific Northwest (PNW), destined to and connecting through Chicago.

The redesigned plan will encompass the NWSA building trains in less than 2 days dwell off the dock with the density to seamlessly connect to and through Chicago. The seamless hand-off across BNSF's Northern

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Transcon route enables faster transit and better consistency for cargo shippers.

“This service product collaboration was an outcome of listening to our joint customers, who emphasized the desire to use more rail, but would need to also reduce inventory carrying and total landed transportation costs out of their networks in 2025,” said BNSF Group Vice President, Consumer Products Jon Gabriel. “We are proud to deliver a solution that accomplishes these goals.”

The NWSA Seattle/Tacoma port complex reported the lowest rail dwell in the country thus far this year as a result of operational changes emphasizing rail loading.

“The Northwest Seaport Alliance is excited to partner with BNSF and NS to offer this industry-leading service for shippers utilizing our gateway,” stated NWSA CEO John Wolfe. “This is an example of how through partnership and innovative efforts we can respond to the needs of shippers and deliver best-in-class service for our customers.”

With reduced on dock dwell and faster transit, results will be 3 days faster, with the total time from ship to Chicago at 6 days, **the fastest from any PNW gateway in North America.**

NS and BNSF will deliver all interchange traffic to one location (NS-Ashland), for a single crew swap, then move toward inland markets in Ohio, Pennsylvania and more.

“At Norfolk Southern, we’re focused on delivering smart, customer-centric solutions—and this enhanced service from the Pacific Northwest to the Midwest is exactly that,” said Shawn Tureman, Vice President Intermodal Automotive Commercial. “By collaborating with BNSF and the Northwest Seaport Alliance, we’re offering a faster, more reliable rail option that helps shippers reduce transit time, cut costs, and streamline supply chains heading into 2025 and beyond.

This new and improved service will launch effectively immediately. For more information about how we can support your freight needs, please reach out to your BNSF or NS Commercial representative.

Contact:
Kendall Kirkham Sloan
Director, External Communications

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Media@BNSF.com

EXHIBIT 2

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5/21/2022

BNSF lands long-term coal contract with Georgia Power (5/21/2002)

On May 21, Burlington Northern Santa Fe announced that Georgia Power Co. recently awarded the railroad a long-term contract to deliver Powder River Basin (PRB) coal to the utility's Robert W. Scherer plant near Juliette, Ga.

The contract, effective Jan. 1, 2004, calls for BNSF to deliver low-sulphur PRB coal from Wyoming and Montana to Memphis, where Norfolk Southern Railway — under a separate Georgia Power contract — would move shipments to the Scherer plant.

Georgia Power, a division of Southern Co., plans in 2004 to use PRB coal in all four of the plant's generating units, annually burning between 12 million and 14 million tons.

BNSF, which annually moves about 12 million tons of PRB coal under a long-term contract with Southern Co. subsidiary Alabama Power Co., currently moves coal to Georgia Power's Scherer plant on a limited basis.

Source: Progressive Railroading Daily News

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EXHIBIT 3

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Technology | Deals

Union Pacific's Slow-Motion Train Wreck: Merger Mayhem

August 5, 1998 at 7:50 AM CDT

Save Translate

This article is for **subscribers only**.

Union Pacific's Slow-Motion Train Wreck: Merger Mayhem

(This is the third in a series of six stories looking at the disappointing performance of mergers in the 1990s. Other stories will examine a troubled international merger and the roles played by executives and investment bankers.)

Dallas, Aug. 5 Bloomberg) -- Union Pacific Corp.'s $5.4 billion takeover of rival Southern Pacific Rail Corp. has a special place in the history of mergers -- it failed from the start.

When Union Pacific executives took charge of Southern Pacific in late 1996, they said they were stunned by the haphazard systems the other railroad had adopted to cope with its chronic cash, equipment and personnel shortages.

Nowhere were the problems more evident than in Southern Pacific's key Englewood freight yard in Houston, where the railroad's traffic benefits from a large concentration of plastics and chemicals manufacturers like Dow Chemical Co. and DuPont Co.

Union Pacific officials, known in the industry for their high-handedness, set to work in early 1997, confident they could bring the Houston yard up to their own standards of efficiency. Instead, they created the worst railroad freight logjam in recent history.

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Railroads, like many industries, are consolidating at a rapid pace. Union Pacific's experience suggests other mergers may prove to be misguided. The UP-Southern Pacific fiasco has already served as a warning to other railroads. Norfolk Southern Corp. and CSX Corp. said last week they would delay their joint takeover of Conrail Inc. to reduce the potential of Union Pacific-like traffic jams.

Main Line Blues

Before the Union Pacific takeover, Southern Pacific's large Houston facility seemed to operate efficiently -- but that was only because the railroad was using its main lines to sort trains, instead of staging them all in the freight yard. Those maneuvers cleared the yard, but they clogged the main line.

Despite warnings from veteran SP employees, Union Pacific required that all trains be sorted in the yard to improve efficiency. But those attempts to solve the problem only exacerbated it.

``You take an inadequate merger plan, add Union Pacific's arrogance and its refusal to listen to the old Southern Pacific hands, and you end up with a disaster," said Paul Broussard, who runs a company in Houston that arranges rail transportation for shippers.

Soon rail cars were stalled as far away from Houston as California and Nebraska. ``It was a chain-reaction," Broussard said. ``It wasn't unusual to have 30 or 40 trains stalled, waiting to get into Houston," he said.

Damages

Delays saddled customers with extra costs of $100 million a month, according to testimony at federal hearings. Dow, DuPont and Union Carbide Corp. sued the UP for damages. The U.S. Surface Transportation Board, which had approved the SP takeover, prodded the railroad to improve its service, demanding it produce periodic status reports.

Instead of the $820 million in annual cost savings Union Pacific predicted through the creation of the U.S.' biggest railroad, the company lost more than $1 billion because of extra costs and lost business by early summer.

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Union Pacific had a net loss of $158 million in the second quarter, its third consecutive quarter of red ink.

Union Pacific's traffic is about 9 percent less than it was a year ago, with much of the freight going to its chief rival Burlington Northern Santa Fe Corp. Union Pacific's stock has fallen from an all-time high of almost 73 in July 1997 to three-year lows of about 40. The shares closed yesterday at 40 15/16.

The railroad still isn't running as it should. Will the merger ever work?

The Job Ahead

``On paper, it's a great franchise," said Edward Emmett, president of the National Industrial Transportation League, the largest U.S. association of shippers. ``How do they get the franchise to work the way it should? They've got to make a fundamental change in their outlook and be more customer focused."

Union Pacific's slow-motion train wreck began with misunderstandings and miscalculations and was abetted by the new owner's own cockiness.

UP officials thought they could solve the problem at Houston merely by bringing the freight yard up to what they believed was its full capacity to assemble trains. Ignoring warnings from SP officials and workers, they quickly closed satellite facilities they believed wasteful and consolidated switching at Englewood.

Only then did they discover that the yard couldn't handle as many cars as they had thought. Trains began backing up around UP's new 36,000-mile system because they couldn't get to Englewood and, eventually, through Houston.

Computer Lapse

The troubles were exacerbated by Union Pacific's failure to immediately link the railroads' computer systems -- workers on one line didn't know what was happening on the other. UP also failed to secure labor agreements permitting workers from one carrier to work on the other one -- the SP was

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short of crews at the time of the merger. These were two railroads under common ownership, not one bigger carrier.

Before long, factories were closing around the Gulf of Mexico, either because they couldn't get raw materials or because they couldn't get their products to market. Grain and coal shipment were frozen and freight destined for retailers around the country sat in yards for weeks. Ports in California were bursting at the seams as ships kept delivering goods that the railroad couldn't take on.

Unbelievably, Union Pacific carried out plans for scheduled track maintenance during the spring and summer construction season, even though that worsened traffic conditions. UP says this was work that had to be done.

The Unexpected

What's more, 15 crashes killed five Union Pacific workers and two stowaways from October to 1996 to October 1997, slowing service on its main lines. There also was a derailment at Englewood that stalled operations for a time. And, in late summer, Hurricane Danny washed out tracks, including all of Union Pacific's connections south of Memphis with CSX and Norfolk Southern.

``The series of unexpected and unfortunate occurrences combined to overwhelm our operations," said Gary Shuster, Union Pacific's spokesman.

Other railroads kept delivering freight to Union Pacific though the railroad couldn't deliver the goods already in its system. The railroad's sidings became virtually full, preventing trains from passing each other in opposite directions and faster trains from moving around slower ones.

Because Union Pacific couldn't deliver empty cars to their customers' plants for loading, the customers began leasing cars on their own and trying to move them to their factories over UP lines. This added to the glut of cars already in the system.

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By the time the Surface Transportation Board required Union Pacific to file public performance reports in the fall, the railroad had more than 350,000 cars in its rail system, 40,000 more than company officials said was the maximum for efficient operations.

Bitter Harvest

When the nation's farmers began sending grain to market from the summer harvest last year, the once-vaunted Union Pacific rail system was frozen.

The railroad has warned farmers that there may be extensive delays in moving grain again this fall if predictions for record and near-record harvests come true.

Traffic moves faster through the important Gulf Coast region, however, and Union Pacific officials say the worst is over. ``When we deliver what we say we will deliver, our reputation will come back," says spokesman Shuster.

Last week, the government transport board declared that the ``service emergency in Houston is over," and said it will cancel the authority it gave to two Union Pacific competitors to move freight for customers in the Gulf Coast region. Its decision wasn't greeted with unanimous support.

Broussard, the go-between for railroads and shippers, said ``things have gotten better" around Houston since the darkest days of last year. ``But service standards are still unacceptable."

Emmett, of the shippers group, said, ``The traffic jam has been exported, like a blood clot, to another part of the system." He noted that delays have been growing at the nation's busiest ports in Southern California and along the railroad's central corridor from California to Texas.

Many shippers, aware that Union Pacific has declared victory prematurely before, remain skeptical. They should. And their experience should make companies and investors in all industries wary of the supposed benefits of mergers.

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EXHIBIT 4

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THE CASE AGAINST THE UP-NS MERGER

Mega Merger Threatens Freight Competition, Customer Choice, and Supply Chain Sustainability.

- The U.S. supply chain thrives on choice, innovation, and resilience. A merger that reduces competition introduces risks and limits flexibility – especially given the challenges seen in past integrations.
- The proposed UP-NS merger isn't being driven by customer needs – it's being driven by short-term financial interests. BNSF believes there's a better way: delivering real, immediate benefits to customers while maintaining a healthy competitive landscape.

READ THE UP-NS MERGER:THE REVIEW PROCESS BEGINS. YOUR VOICE MATTERS.

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HAVE YOUR SAY!

Your Voice Matters

- We encourage you to participate in the STB review process and share your perspective.
- Let regulators know that preserving competition and customer choice is essential for a healthy supply chain and economy.

ACT NOW TO MAKE YOUR VOICE HEARD!

PRESERVE COMPETITION

BNSF Advantage – Our Commitment to Compete

- BNSF believes in collaboration – not consolidation – to expand service and preserve a balanced, customer-focused network
- Learn more about our customer-first approach powered by industry-leading innovation, strategic investments, and collaborative partnerships – delivering reliable, efficient, and resilient supply chain solutions that help your business win.

Protecting Customer Choice and Market Balance

- The proposed UP-NS merger would concentrate more than half of the nation's Class I freight traffic under one railroad – limiting shipper choices and reducing long-term competitiveness.
- Unlike the CP-KCS merger (which affected just 5% of the market), this proposal is unprecedented in scale and could reshape the

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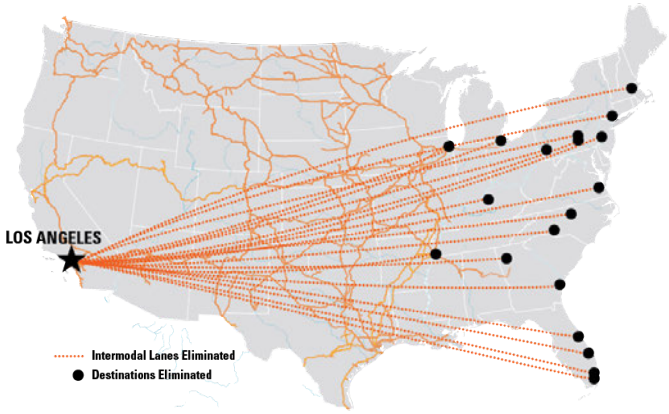
industry in ways that limit customer options.

- Eliminating up to 300 intermodal lanes and closing facilities could permanently reduce access and flexibility for shippers and the consumer goods our country depends on.

INTERMODAL LANES ELIMINATED TO/FROM SOCAL



Growing Opposition to the Merger

- Nearly 60% of rail cargo is represented by shipper associations that oppose the merger or have raised concerns
- More than 65% of projected combined UP-NS unionized workforce is represented by organizations opposing the merger
- 184 vs. 7: statements of concern or opposition in Congress compared with statements of support

LEARN MORE ABOUT THE STOP THE RAIL MERGER COALITION

STOP THE RAIL MERGER COALITION

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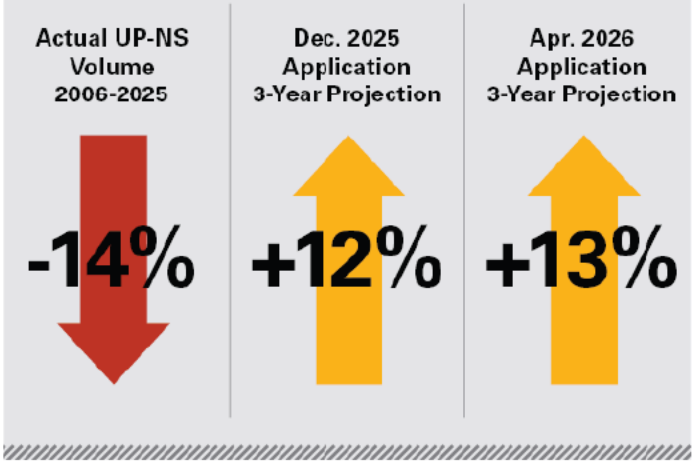
UP promises 13% volume growth within the first three years, despite a decade of declining volumes and the highest per-unit pricing in the industry.



PROTECT THE SUPPLY CHAIN

Safeguarding Supply Chain Resilience and Economic Stability

- The pandemic underscored the need for a resilient supply chain—this merger introduces significant risk to that stability.
- Past mergers have led to service disruptions that took years to resolve. Even smaller integrations have caused ripple effects across the economy.

For example, after the UP-SP merger in 1996, the initial congestion in Houston created a domino effect, with rail traffic backing up for thousands of miles across the country. By the fall of 1997, the system was completely paralyzed:

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Massive delays

Average train speeds plummeted, and tens of thousands of rail cars were left stranded on sidings for weeks or months.



Economic disruption

Major industries, particularly the chemical and agriculture sectors, were severely impacted. Factories in the Gulf Coast region were forced to shut down due to shortages of raw materials, and ports in California saw massive backlogs of cargo.



Financial fallout

Shippers lost an estimated $100 million per month from delays. Union Pacific itself lost more than $1 billion and experienced three consecutive quarters of net losses. Several major companies sued the railroad.

Enforcement of merger conditions has proven challenging and ineffective despite regulatory safeguards.

- BNSF has pursued legal action repeatedly over 24 years to enforce UP/SP merger access rights.
- 69 of 200 requests delayed or denied since the merger: often resulting in lost service options for shippers.
- Even when granted, delays often stretch for months or years, eliminating real competition.
- BNSF has prevailed in 70% of the cases that had to be brought before the STB demonstrating that BNSF was not asking for more than what was granted in the original merger concessions.

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STAY INFORMED

ALL RESOURCES | MEDIA COVERAGE | LETTERS | WEBSITES

Sep 21, 2026 Customer Letter from CMO Tom Williams

BNSF Flyer | Merger Conditions Flyer

BNSF Flyer | UP-NS Merger Market Share Facts

Sep 10, 2026 Customer Letter from CMO Tom Williams

Aug 19, 2026 Customer Letter from CMO Tom Williams

Aug 14, 2026 Customer Letter from CMO Tom Williams

July 28, 2026 Statement from CEO Katie Farmer

Aug 13, 2026 | NGFA | NGFA asks STB to reject Union Pacific-Norfolk Southern merger

Aug 11, 2026 Letter from Republican state attorneys general to STB

Aug 6, 2026 Joint letter from some of nation's largest rail customers to STB

July 23, 2026 Letter from 23 Democratic U.S. Senators to STB

July 28, 2026 Customer Letter from CMO Tom Williams

July 24, 2026 Customer Letter from CMO Tom Williams

May 28, 2026 Customer Letter from CMO Tom Williams

May 14, 2026 Customer Letter from CMO Tom Williams

Apr 30, 2026 Customer Letter from CMO Tom Williams

Jan 20, 2026 Customer Letter from CMO Tom Williams

Jan 6, 2026 Customer Letter from CMO Tom Williams

Dec 19, 2025 Statement from CEO Katie Farmer

Dec 19, 2025 Customer Letter from CMO Tom Williams

BNSF Flyer | The UP-NS Merger: New Packaging. Same Problems.

Sep 29, 2025 Customer Letter from CMO Tom Williams

Nov 12, 2025 Customer Letter from CMO Tom Williams

Nov 12, 2025 Statement from CEO Katie Farmer

Stop the Rail Merger Coalition

Apr 17, 2026 | The Loadstar | The UP-NA merger has a scret escape clause and shippers aren't allowed to read it

Feb 9, 2026 | The FreightFA Brief | The ‘Mathematical Impossibility’ Behind the UP–NS Merger

Feb 3, 2025 | Montana Talks | BNSF Warns Montanans About Proposed UP-NS Railroad Merger

Jan 29, 2026 | Hawkeye Reporter | Iowa Secretary leads call for scrutiny of major railroad merger affecting agriculture

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Jan 27, 2026 | TRAINSPRO | Seven Chicago-area suburbs join forces to address UP-NS merger

Jan 26, 2026 | St. Louis Magazine | St. Louis looms large in Union Pacific, Norfolk Southern merger

Jan 19, 2026 | Cowboy State Daily | Feds Reject Railroad Mega Merger That Threatened Wyoming Coal

Jan 17, 2026 | TRAINSPRO | Two shipper groups voice support for STB decision on UP-NS merger application

Jan 15, 2026 | Bloomberg | Berkshire-backed BNSF says rail megamerger risks price rises

Jan 14, 2026 | TRAINSPRO | Farmer reiterates that BNSF has ‘no interest’ in merger

Jan 12, 2026 | TRAINSPRO | BNSF and CN ask STB to force UP and NS to produce more merger documents

Jan 9, 2026 | The Atlanta Journal-Constitution | Rivals call Norfolk Southern merger ‘anti-competitive’

Dec 12, 2025 | RAILWAY AGE | Is a UP-NS 'Fix' In? Don't Bet On It!

Dec 9, 2025 | FORT WORTH STAR-TELEGRAM | Fort Worth-based BNSF Railway's fight against $85B merger: Are jobs on the line?

Dec 9, 2025 | YELLOWHAMMER | Opinion: Southern ports keep America moving. Don't let a rail merger slow Alabama down

Dec 2, 2025 | TRAINSPRO | Creel warns UP-NS merger is no 'fait accompli'

Dec 2, 2025 | FREIGHTWAVES | Ports warn intermodal in the crosshairs of rail merger

Dec 1, 2025 | RAILWAY AGE | BNSF to STB: First Cure UP's 'Old Harms'

CPKC | Further Rail Consolidation Not Necessary

ACC | Rail Merger Policy: Competition and Service Reliability

RCC | Risky Union Pacific–Norfolk Southern Merger Threatens Rail Competition and Service

Nov 24, 2025 Trade Associations Letter to STB on Proposed Merger

FREIGHTWAVES | Shippers Line Up Against Railroad Mergers

FREIGHTWAVES | Rail Merger Warning: Higher Costs, Worse Service

SUPPLYCHAINDIVE | The Wrong Track: Why the STB Should Reject Rail's Latest Power Grab

Reuters | Rail Customers Urge Regulators to Block Union Pacific-Norfolk Southern Deal, FT Reports

American Economic Liberties Project | The New Railroad Barons: Why the Union Pacific/Norfolk Southern Railroad Merger Must Be Blocked

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PRESERVE COMPETITION
PROTECT THE SUPPLY CHAIN
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EXHIBIT 5

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BNSF and KCS join forces to provide new intermodal shipping solutions between Mexico and the U.S. | News Releases | BNSF



FORT WORTH, TEXAS – BNSF Railway Company (BNSF) and Kansas City Southern (KCS) today announced a new joint service to offer intermodal transportation connecting the Chicago and Dallas/Fort Worth markets and other major markets on the BNSF network with important consumer and industrial regions on the Kansas City Southern de México network. The new service offerings, which start Dec. 1, will provide intermodal transportation five days a week.

Northbound, the service will operate from Toluca, San Luis Potosí or Monterrey, Mexico, to Dallas/Fort Worth or Chicago. Southbound, the service will originate from Chicago or Dallas/Fort Worth to Laredo, Texas or to Monterrey, San Luis Potosí or Toluca, Mexico. Customers using this service can also connect to the West Coast to and from Los Angeles, San Bernardino and Stockton, Calif., and Seattle and Portland, Ore., in the Pacific Northwest. In addition, customers will have the ability to connect to other regions along BNSF's 32,500-mile network from Dallas/Fort Worth or Chicago as well as other railroads to reach northeastern and Canadian markets.

> "At BNSF, we are focused on providing our customers with options that can strengthen their value proposition in the marketplace. These new services leverage our strong intermodal product and KCS' expertise south of the border to enhance customers' supply chain efficiency into and out of Mexico."

"We are excited to be partnering with KCS to offer our customers a new, efficient and reliable way to access some of Mexico's largest metropolitan markets," said Katie Farmer, group vice president,

BNSF Consumer Products.

“At BNSF, we are focused on providing our customers with options that can strengthen their value proposition in the marketplace. These new services leverage our strong intermodal product and KCS’ expertise south of the border to enhance customers’ supply chain efficiency into and out of Mexico.”

This new service offers customers moving consumer goods, including appliances, foods and beverages and other cross-border shipments, a secure and direct connection to some of the most important consumer and manufacturing regions in Mexico. Trains moving in both directions carrying 53-foot intermodal containers will interchange at Robstown, Texas.

“The Kansas City Southern Railway Company in the U.S. and Kansas City Southern de México are proud to partner with BNSF to expand the portfolio of services we offer in our cross-border product, enabling our shippers to compete more effectively in the market and provide enhanced supply chain logistics to the customer,” said Erik Hansen, KCS vice president intermodal.

The service provides competitive “truck-like” intermodal transit times, when compared with over-the-road options. It features a multi-layered safety and security process that includes monitoring shipments throughout the route using strategic rail inspection portals. Customers will have access to tools 24 hours a day, 7 days a week to track shipments in both countries. Unlike truck shipments, intermodal rail shipments moving in this service will not have to stop at the border for customs clearance. Instead, shipments travel in-bond, clearing customs at Mexico origins and destinations.

For more information on these new service offerings customers can contact their intermodal sales representative or visit www.bnsf-kcs.com.

About BNSF

BNSF Railway is one of North America’s leading freight transportation companies operating on 32,500 route miles of track in 28 states, and also operates in three Canadian provinces. BNSF is one of the top transporters of consumer goods, grain and agricultural products, low-sulfur coal, and industrial goods such as petroleum, chemicals, housing materials, food and beverages. BNSF’s shipments help feed, clothe, supply, and power American homes and businesses every day. BNSF and its employees have developed one of the most technologically advanced, and efficient railroads in the industry. We work continuously to improve the value of the safety, service, energy, and environmental benefits we provide to our customers and the communities we serve. You can learn more about BNSF at www.BNSF.com.



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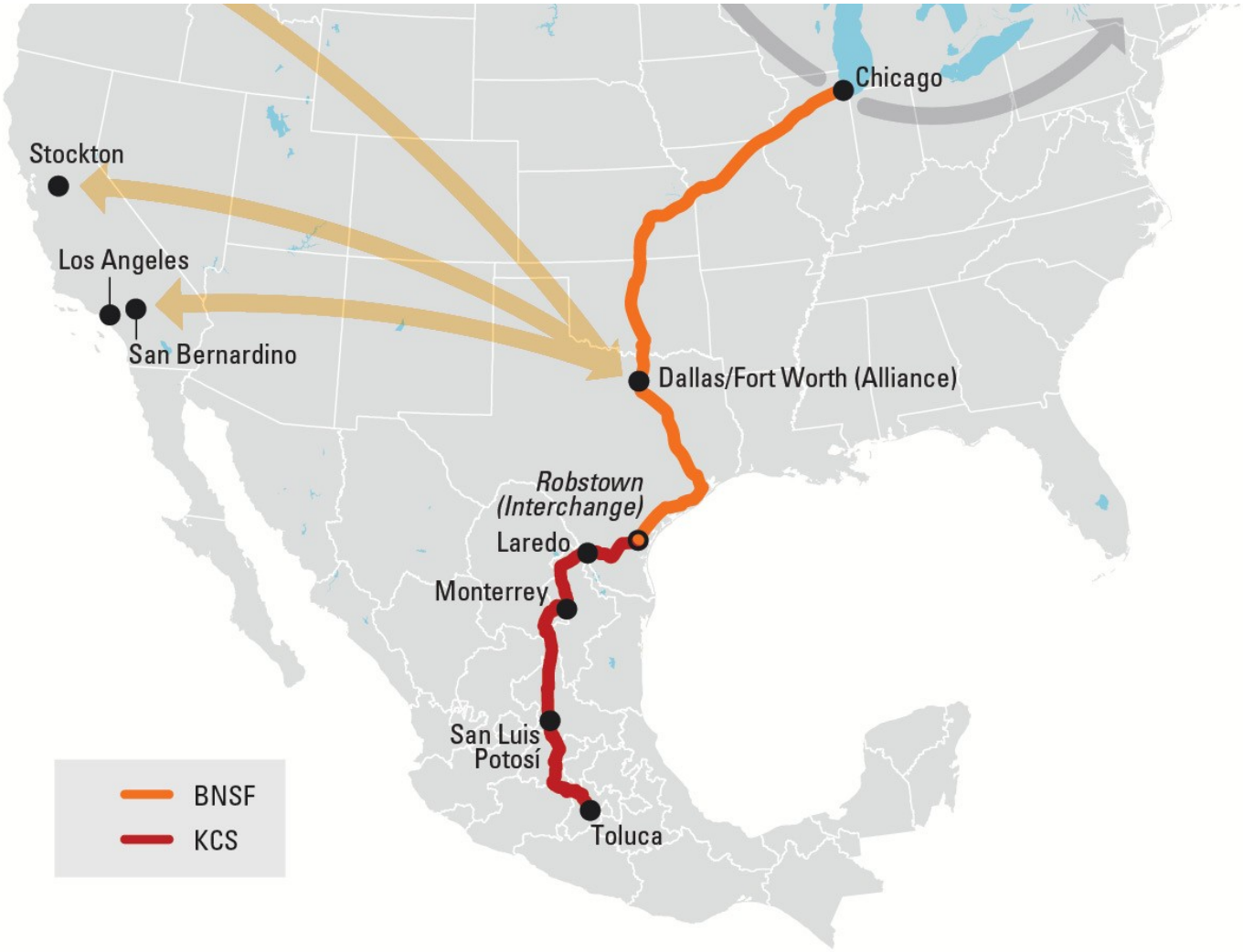

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EXHIBIT 6

PUBLIC VERSION - REDACTED

S&P | Journal of Commerce

NS chassis shortage disrupts freight deliveries in Pennsylvania



Norfolk Southern is the predominant intermodal provider in central Pennsylvania with terminals in Allentown, Harrisburg, Philadelphia and Scranton. Photo credit: Khairil Azhar Junos / Shutterstock.com.

Ari Ashe, Senior Editor, Intermodal Rail | Sep 3, 2026, 2:27 PM EDT

Intermodal shippers sending freight into parts of central and eastern Pennsylvania are facing delivery delays and potentially higher short-term transportation costs because Norfolk Southern Railway (NS) is running short of available 53-foot chassis at multiple terminals in those parts of the state.

The railroad has restricted the number of containers it will accept at Harrisburg and nearby Rutherford from several origins to prevent those terminals from becoming gridlocked, market sources say and Norfolk Southern confirmed.

Domestic intermodal containers transferred to NS from other railroads are not subject to the restrictions, although the boxes may still encounter chassis-related delays after arriving in Pennsylvania.

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NS, acknowledging the disruption, said it is repositioning chassis from other markets and altering ingate flows to better manage moves at the affected terminals.

"We have already implemented several actions to restore normal fluidity in the Harrisburg market, including deploying additional mobile mechanics to high-demand areas, strategically repositioning chassis from other locations, and adjusting ingate flows to optimize equipment availability and maintain efficient terminal operations," an NS spokesperson said in a statement to the *Journal of Commerce*.

The railroad said it was "confident in the actions under way" and that it would work with customers to "communicate proactively, minimize impacts, and support reliable service across the network."

The restrictions have begun to reduce the chassis deficit, sources said, but the shortage remains substantial. Sources said chassis are being moved into Harrisburg by rail and truck, while repairs of out-of-service equipment are being accelerated, and short-term equipment leases are being evaluated.

NS is also urging shippers not to divert Harrisburg-bound freight through terminals serving Allentown, Scranton or northern New Jersey because chassis supplies in those markets are already lean and being repositioned to Harrisburg.

The backlog at Harrisburg could involve hundreds of containers, according to multiple intermodal marketing companies (IMCs) who asked not to be identified. The exact number could not be independently determined.

Some containers have been waiting for chassis for more than a week, causing missed or delayed cargo deliveries, multiple sources said. Other containers remain at origin because the restrictions are preventing them from being accepted for shipment, or because the boxes may reach Harrisburg but remain on railcars or elsewhere within the terminal complex and are thus unavailable for pickup, the sources said.

Sources said Norfolk Southern has agreed to waive demurrage fees on at least some containers that could not be retrieved because chassis were unavailable. It was unclear whether the railroad is providing storage relief automatically or evaluating charges on a case-by-case basis.

The disruption, meanwhile, is expected to extend into next week. The Labor Day holiday could slow the recovery because fewer drivers are typically available to retrieve containers compared with a normal Monday.

The equipment shortage is not limited to Harrisburg. At Morrisville, outside Philadelphia, containers are also stacked without chassis available to retrieve and deliver the cargo, according to sources at multiple IMCs.

Shippers have few alternatives

While rival CSX Transportation provides an alternative in Philadelphia, NS is largely the only practical rail option for cargo moving through central Pennsylvania. CSX's nearest terminal is in Chambersburg, approximately 55 miles southwest of Harrisburg, so diverting freight there would require a substantially longer and more expensive dray to receivers in the Harrisburg area.

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Chicago is among the most exposed to restrictions in Pennsylvania. approximately 10,000 to 15,000 domestic containers per month move from Chicago to NS Harrisburg or CSX Chambersburg, according to a *Journal of Commerce* estimate based on data that railroads file annually with the US Surface Transportation Board.

Another option is to move time-sensitive freight by truckload on the spot market. Quotes for Chicago-to-Harrisburg truckload service ranged between $2,500 and $3,000 per load last month, according to a *Journal of Commerce* analysis of rates from DAT Freight & Analytics, freight brokers Loadsmart and Sunset Transportation, and data from shippers and third-party logistics providers.

By comparison, the door-to-door intermodal contract rate on the lane averaged between $1,700 and $2,000 per load last month, including fuel and local drayage in Chicago and Harrisburg, according to the *Journal of Commerce* Intermodal Savings Index.

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More News & Analysis



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Private fleets in US capture more freight as dedicated trucking expands

The shift reflects a longer-term strategy by shippers to secure reliable transportation and reduce exposure to fluctuating truckload rates.



Record Asia imports, BNSF woes worsen Southern California rail dwells

Those volumes began moving inland from the ports of Los Angeles and Long Beach just as back-to-back storms in late October and early November caused major flooding and disrupted operations along BNSF's Southern Transcon network in New Mexico.



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Port Saint John dockworkers, employers look to head off January strike

Longshore workers at the Canadian port rejected a recent contract proposal and authorized a strike if the current round of negotiations does not result in an agreement.

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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 Craig Morehouse,
BNSF Chief Operations Officer

November 18, 2026

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My name is Craig Morehouse. I am the Chief Operations Officer of BNSF Railway. Based on my experience managing railroad operations, service design, and network performance, I submit this declaration to provide an operator's assessment of the claims made by UP and NS. As I explain below, the national network is running well. As volumes have increased to record highs, the network remains fluid. Interline partnerships are working, and network investments are yielding results. This proposed merger would put that progress and promise at risk. By concentrating more traffic, more decision-making, and more shared infrastructure in one carrier—in a manner that has never before been tested or managed—it would harm the national network and create operational risks that will be borne by shippers. Those are unnecessary risks. There is a better way: continued investments and well-executed interline service.

* * * * *

As the Chief Operations Officer of BNSF, I am responsible for the safe and efficient operation of one of the nation's largest freight railroad networks. I oversee all aspects of BNSF's train operations, network engineering, mechanical services, dispatching, and terminal management. Each week, BNSF moves 200,000 carloads and intermodal units across our network,[1] and I oversee 30,000 employees who run and maintain the network—including our train and engine crews; dispatchers and

[1] Ex. 1, BNSF Railway, Weekly Intermodal and Carload Units Report: Week 39 (ending Oct. 3, 2026).

yard staff; police; and the engineering and mechanical forces who maintain our track, locomotives, and cars.[2]

I joined BNSF in 2006. Over the past two decades, I have served in field supervisory and operations leadership positions, including as head of both the North and South Region Operations as well as Network Operations and Service Design. Through those roles, I gained expertise in train planning, terminal operations, crew and equipment utilization, interchange fluidity, service recovery, and the allocation of capacity when demand and operating conditions change. I was promoted to Chief Operations Officer in May 2026. I hold a bachelor's degree in civil engineering from Michigan Technological University and an MBA from the University of Minnesota.

I. Introduction and Roadmap to Declaration.

The national network is running well. Performance metrics are at record bests. Partnerships are working. Class I railroads are investing billions of dollars in their networks to expand facilities, improve fluidity, and compete for service.

The proposed merger between UP and NS puts that at risk. From an operator's perspective, it would create operational, competitive, and integration problems. The merger would be bad for the U.S. rail network. It would weaken the U.S. supply chain that moves critical goods across the entire country. It would impair rail service and reliability. And the merger would add a layer of uncertainty as to where and when capital would be deployed in our network.

[2] Surface Transportation Board Employment Data (49 C.F.R. Part 1246) (Sep. 2026), https://www.stb.gov/reports-data/economic-data/employment-data/.

It is unnecessary to take those risks and inflict that harm on the national network and shippers, particularly given the strength of rail today. Joint interline service and asset-sharing arrangements carry far less operational risk than an unprecedented transcontinental merger that would distort the current competitive and operational dynamics into a system that has never been tested or managed. Joint service offerings, haulage agreements, and asset-sharing arrangements can adapt and grow organically—reacting to future industry changes and opportunities—whereas a single-line system would be static, less flexible, and less able to navigate its way out of the service issues that regularly arise in our industry.

The merger is based on a premise that is inconsistent with my industry experience. Applicants present the proposed merger as a way to turn interline movements into faster, more reliable, and more efficient single-line service. Applicants treat the interchange between independent railroads as the principal obstacle to growth in the rail industry, and they argue that common ownership is the solution. Based on my twenty years of operating experience, I disagree. Removing an interchange does not necessarily increase transit efficiency. Single-line service trains still need to stop to build density and allow for crew changes. The merger will not change the reality that railroads need to build density to efficiently serve an origin and destination pair. For those and other reasons discussed below, single-line service is not necessarily better than interline service. There are many examples where strategic partnerships already deliver—and can continue to deliver—many of the claimed efficiencies and benefits Applicants say that only their merger can achieve.

Collaboration can deliver those benefits without the massive operational risks that this merger would inflict on the national rail network and that will be felt by the other railroads and our customers.

Based on my experience and professional judgment, I have four primary conclusions that I summarize in this introduction. ***First***, the merger is unnecessary. ***Second***, the merger would harm the rail network. ***Third***, the merger would create substantial integration problems. And ***fourth***, there is a better way: the investment and partnerships that are working and winning today.

This Merger is Unnecessary.

From an operator's perspective, the question posed by this merger is whether the incremental service improvements that Applicants attribute to this merger—from, they say, the conversion of some interline moves to single-line service—are real, material, and unavailable through cooperation. For at least five reasons, they are not.

First, a merger is not needed to provide faster service or new routing. Railroads already collaborate to provide customers with innovative new services. Where there is customer demand for them, interline carriers already deliver the transit-time and network-reach benefits that Applicants attribute to this merger. The following examples show that railroad collaboration can yield significant service improvements—without a risky and untested restructuring of the industry:

- ***BNSF/CSX Partnerships.*** Since 2001, BNSF has run LA-Atlanta with CSX through Birmingham, handing a largely intact train to CSX that continues to Atlanta, with the interchange work event consisting only of a

crew change.[3] In 2023, the average transit time for this lane was below 100 hours—making it about ***two days faster*** than UP/NS's claimed transit time of 144 hours in 2023 (for a comparable lane of Long Beach-Atlanta).[4] There are other BNSF-CSX success stories, too. In November 2025, BNSF announced schedules with CSX that reduce average transit times by an average of 31 hours for six lanes from LA to the Ohio Valley and Northeast.[5] And BNSF and CSX have continued improving. In October 2026, we announced a new route between Los Angeles and South Kearny, improving transit times by an additional 26 hours.[6] By comparison, UP/NS claim that a new post-merger, single-line train from Southern California to New Jersey would save only 17 hours.[7] These comparative examples underscore that interline partnerships can—and do—deliver the claimed benefits that UP/NS say only a merger can provide.

- ***BNSF/NS/Northwest Seaport Partnership.*** Effective collaboration is not limited to BNSF-CSX. In April 2025, BNSF, NS, and the Northwest Seaport Alliance reduced transit time by about three days on some moves. We did so by redesigning intermodal service from the Seattle and Tacoma ports to Chicago and on to NS markets in Ohio and Pennsylvania. The ports now build trains with less than two days of dwell, and BNSF and NS deliver all interchange traffic to one Chicago terminal for a single crew swap, which eliminates the interchange friction that UP/NS say only a merger can remove.[8]

- ***BNSF/NS Coal Service.*** Since 2004, BNSF and NS have moved Powder River Basin coal from Wyoming and Montana to Georgia Power's Plant

[3] Bill Stephens, *BNSF-CSX Interline Intermodal Service Off to Fast Start*, Trains.com (Oct. 10, 2025), https://www.trains.com/pro/freight/class-i/bnsf-csx-interline-intermodal-service-off-to-fast-start/.

[4] Apr. 30, 2026 Am. App. Vol. 2, p. 477, Hunt VS Ex. 7-4; *see also* workpaper WP07_LA_Atlanta_and_BNSF_CSX_schedules.xlsx, tab VS Figures, cell(s) B5-B6.

[5] Ex. 2, BNSF Customer Notice, *Faster Coast-to-Coast Solutions: BNSF and CSX Launch New Intermodal Schedules to Ohio Valley and Northeast* (Nov. 14, 2025) ("BNSF will offer new, faster five-day-a-week schedules from Los Angeles to many CSX destinations, as well as new service lanes . . . ."); *see also* workpaper WP07_LA_Atlanta_and_BNSF_CSX_schedules.xlsx, tab VS Figures, cell(s) B7-B8.

[6] Bill Stephens, *BNSF and CSX Team Up for Faster Coast-to-Coast Domestic Intermodal Service*, Trains.com (Oct. 19, 2026), https://www.trains.com/pro/freight/intermodal/bnsf-and-csx-team-up-for-faster-coast-to-coast-domestic-intermodal-service/.

[7] Apr. 30, 2026 Am. App. Vol. 2, p. 477, Hunt VS Ex. 7-4 (providing LATC-Croxton as 112 to 95 hours); *see* workpaper WP07_LA_Atlanta_and_BNSF_CSX_schedules.xlsx, tab VS Figures, cell(s) B9.

[8] Ex. 3, BNSF Customer Notice, *BNSF, NS, NWSA Redesign Faster Service From PNW to Chicago and Beyond* (Apr. 2, 2025).

Scherer in central Georgia. BNSF hauls the unit trains to Memphis, NS takes them to the plant, and BNSF locomotives stay on the train for the whole trip.

- ***Asset Pools.*** A merger is not needed to share assets, such as locomotives and other equipment, either. There are many examples of asset-sharing across geographies and asset types. These sharing arrangements benefit customers by increasing the efficiency of the national network. For example, Class I and shortline railroads seamlessly share locomotives today through BNSF's horsepower sharing system. {{ [redacted] }}

- ***Efficiency and Collaboration.*** And there are other ways that railroads cooperate and facilitate growth without a merger. For example, BNSF shared a switching-optimization tool with Ferromex for its classification yards. In 2025, Ferromex began building outbound train switch lists with the system; today, it handles our premium intermodal traffic to and from Mexico through Eagle Pass.[10]

Second, seamless interchange exists today, without this merger. BNSF has intermodal services that interchange with little dwell time—for example, BNSF's expedited service offerings from Los Angeles to North Bergen, New York, and Atlanta:

- ***Los Angeles to North Bergen.*** This is the fastest (seasonal) train in North America, taking 80 hours. It spends about 30 minutes in Chicago in a "step-on, step-off" crew change. It runs {{ [redacted] }} a year for holiday parcel peak.

- ***Los Angeles to New York.*** This train runs more often, but only about half the traffic that it hauls needs the speed. The rest of the train is filled with traffic from customers who do not seek that transit time.

[9] *See* workpaper WP15_Horsepower_equalization.xlsx, tab VS figures, cell(s) B5-B9.

[10] Bill Stephens, *GMXT Quietly Claims Class I Railroad Growth Crown: Analysis* (Aug. 31, 2026), https://www.trains.com/pro/freight/class-i/gmxt-quietly-claims-class-i-railroad-growth-crown-analysis/.

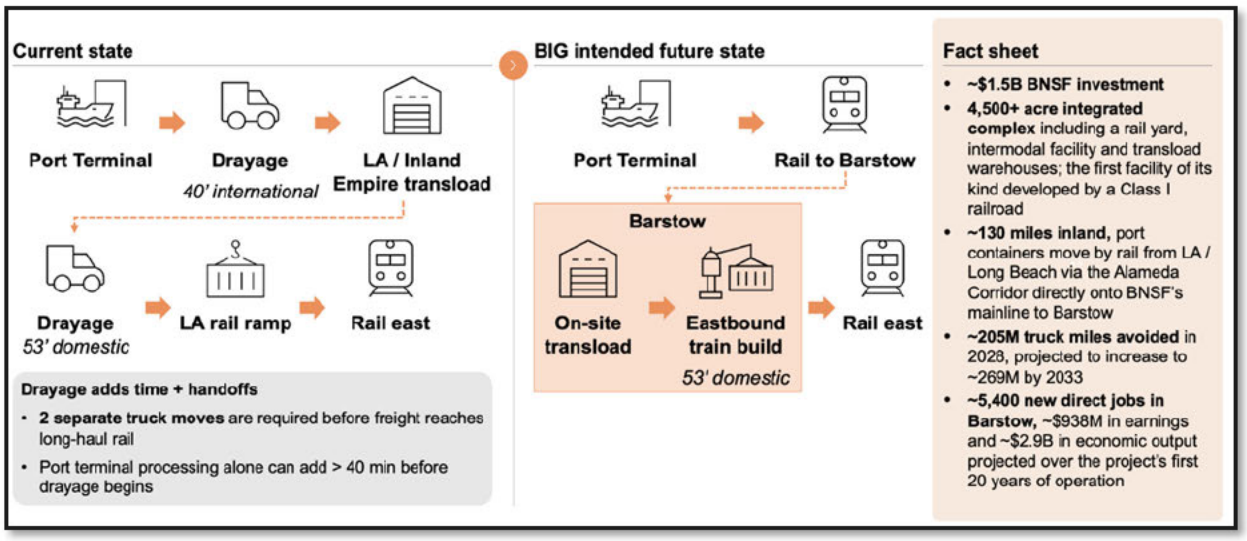
- ***Los Angeles to Atlanta.*** This is a seamless extension with CSX at Birmingham that started in 2001. Interchange takes about 1 hour. It still does not run daily, despite the big markets that it serves.

These trains do not run every day because there is not sufficient demand for them to run every day. If there were more demand for these lanes, BNSF could and would serve that demand. The impediment to more of these offerings (or more frequent service of these offerings) is demand—not an inability of railroads to work together. And it highlights another point that I discuss below: based on my interactions with them in the field, shippers care most about reliability and consistency against the delivery times the shippers set—not necessarily speed.

Third, a single railroad can invest in its own intermodal product and fund the capital to support growth without a merger. By way of example, BNSF is investing more than $1.5 billion in the Barstow International Gateway ("BIG"), which moves port containers by rail to an inland facility for transloading and train building. This project takes transloading and train building out of the LA Basin and sends fully blocked trains east to their destination. By investing in our ability to build full blocks in the West, it shortens handling time at the interchange in the middle of the country. BIG is a redesign of the West Coast intermodal product at network scale, so that trains moving east in interline movements have blocks that can run deeper into the eastern half of the country. BNSF's investment will remove approximately 205

million truck miles a year by 2028.[11] And its benefits reach our eastern interline partners.

Summary of BNSF Barstow Investment



A project like BIG carries far less risk to the network and industry than a merger. It involves no added congestion at shared hub terminals and no restructuring of jointly owned entities. It does not create integration risks that the investing carrier cannot reasonably foresee or control. It does not require the integration of union personnel who operate under different labor agreements for different companies. Instead, BNSF (or any other Class I railroad) can better control outcomes—and create less risk for others—by investing in its own railroad, coordinating with interline carriers, partnering with customers, and driving efficiency.

[11] BNSF Railway, *BNSF's Barstow International Gateway Project in California Approved by City Council* (June 17, 2026), https://bnsf.com/discover/news-and-media/bnsfs-barstow-international-gateway-project-in-california-approved-by-city-council.

Fourth, while there are existing operational issues at gateways that merit attention, this merger would not solve them. This merger would make them worse. Applicants focus on dwell and opportunities to improve interchanges in Chicago, but I found Applicants' discussion of those topics to lack nuance.

Applicants argue that the merger will reduce dwell by sufficient amounts to attract highway conversions. Applicants' dwell analysis is not credible to me. Dwell is not just a function of interchange; rather, dwell at a gateway or any other point on the network is impacted by terminal design, dispatching, train scheduling, season, and truck availability for drays and first- and last-mile deliveries. Plus, dwell is driven by two important elements that this merger would not improve: federal inspection requirements (triggered by mileage or work events) and federal crew hours of service and crew geographic limitations per agreements. In short, removing an interchange does not necessarily shorten dwell. Single-line service trains still need to stop to build density and to allow for crew changes. This merger would not eliminate these needs.

Chicago illustrates the point. UP highlights Chicago as an opportunity to reduce interchange friction, but traffic moves through Chicago for good reasons: Chicago has massive infrastructure advantages, and the large traffic volumes there make it an ideal place for railroads to build density. For example, regardless of whether this merger occurs, an intermodal unit moving from Los Angeles to a terminal in Norfolk, Virginia will still wait in a Chicago-area yard until there are enough Norfolk, Virginia-bound units to fill a block. The same concept applies to

manifest traffic: a manifest carload moving from Denver to Toledo will still wait in a Chicago-area yard until there are enough Toledo-bound cars to fill a block and justify sending a train and crew to Toledo. Density also matters for the trip back to Chicago—either to get the empties back to the gateway or to have loaded rail cars to make a western move. Without the density, the car will sit and wait. A single-line UP/NS would still need to aggregate the freight somewhere. This merger might change ***where*** the freight is aggregated, but it would not change the fact that intermodal units and rail cars will need to wait somewhere for sufficient density to build.

Fifth, from my seat running the operations of a Class I railroad, the efficiency claims are overstated because of the base year that UP chose, the decision to ignore what happened in the CP/KCS merger, and the assumptions used in the traffic-gain assessments. Once those flaws are corrected, it is clear that most of the purported benefits have already been achieved—and without a merger.

- ***Flawed Base Year.*** The UP/NS case is built on a baseline that no longer exists. They used 2023 as the "base year" on which to ground their benefit analyses. That is an unreliable starting point. I would not base my operating plans on data that is nearly four years old, especially because the industry and rail network have changed significantly over the last few years. In 2023, the industry was still recovering from the aftereffects of the COVID-19 pandemic, and low truck rates that year drove low intermodal volumes. Because 2023 provides a low baseline, using 2023 data to estimate traffic gains overstates the potential of the UP/NS merger. Rail has seen strong growth and network improvements since 2023. Rail intermodal volume is up approximately 20% while truck tonnage is down approximately 2%, Class I operating ratios have improved by about 5%, and terminal dwell has improved by 9%.[12] Using 2023 as the base year creates an unreliable foundation.

[12] *See* workpaper WP02_Rail_recovery_vs_truck.xlsx, tab VS Figures, cell(s) B5, B12; workpaper WP04_ClassI_OR_and_dwell.xlsx, tab VS Figures, cell(s) B5-B6; *see also* U.S. Bureau of

- ***Ignoring the Lessons of the CP/KCS Merger.*** The recent CP/KCS merger is the closest real-world test of the claims Applicants make here. CPKC has not achieved its projected gains from the highway. Despite that real-world evidence, UP/NS now project far more truck diversions than CPKC did. I understand that truck-to-intermodal traffic makes up approximately 84% of UP/NS's net claimed diversions, when the CPKC precedent teaches that most diversions would come from other railroads.[13]

- ***Problematic Assumptions in Applicants' Traffic Assessments.*** As an operator, I was particularly perplexed by the dwell time assumption that Applicants' analyst (David Hunt) used. He assumes a flat 22-hour interchange dwell, drawn from a system-average terminal-dwell statistic.[14] The STB's system-average terminal dwell measures how long a car sits in a railroad's own yards between arrival and departure. By its terms, it excludes cars on run-through trains, which are trains that pass through a terminal intact with only a crew or locomotive change, as Mr. Hunt acknowledges.[15] What remains in the average is mostly carload traffic being switched in hump and flat yards. As an operator, I would not make crew- or capital-deployment decisions based on a system-wide assumption of 22-hour dwells. It is not an accurate representation of real interchange time. By using an overinflated terminal dwell assumption, UP overstates the delay that single-line service might hypothetically eliminate. And by overstating the delay, it overstates the truck-to-rail conversions.

<u>This Merger Will Harm the Rail Network.</u>

As an operator, I am concerned about the risks of concentrating more traffic, more decision-making, and more shared infrastructure in one system. Today, multiple Class I railroads and interchange combinations create pressure to maintain

Transportation Statistics, Rail Freight Intermodal Traffic [RAILFRTINTERMODALD11], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/RAILFRTINTERMODALD11, November 17, 2026; STB Ex Parte No. 724 rail service data and Class I railroad Form 10-Q filings, Q1 2023 and Q2 2026.

[13] Sep. 4, 2026 Am. App., Vol. 2 p. 405, Hunt VS § 2.3, Ex. 2-4.

[14] *See* Sep. 4, 2026 Am. App., Vol. 2 pp. 416, 527, 557, Hunt VS.

[15] Sep. 4, 2026 Am. App., Vol. 2 p. 416, Hunt VS.

service quality, invest in commercially attractive offerings, and compete for traffic across overlapping lanes. The combination would give one railroad control over more east-west routings and greater influence at shared gateways and jointly owned facilities.

Where BNSF can now hand traffic east to either NS or CSX—choosing the partner that offers the best service, the most capacity, or the fastest recovery during disruption—a merged UP/NS would eliminate one of those options entirely and replace it with a carrier that has every incentive to favor its own single-line traffic. The competitive discipline that multiple independent routing options impose on each carrier would weaken, and the network's structural ability to absorb and recover from disruption would narrow. The problems would compound over time, as a combined UP/NS system would face weaker commercial discipline to win business through service improvements, pricing discipline, and customer responsiveness. This will have real operational consequences.

This merger would concentrate power at critical gateways and control over shared industry assets. New Orleans is a good example. There, UP/NS would have operational control of the gateway from the Huey P. Long Bridge ("HPL Bridge") to the Back Belt—the chokepoint through which several Class I railroads and Amtrak must pass. Today, BNSF's volume at this gateway is dispatched by two independent railroads, UP and NS. If this merger is approved, BNSF's ability to traverse the gateway will depend on one railroad that will be incentivized to favor its own traffic. UP/NS have said they plan to add eight new trains per day over the Back Belt, which

would further complicate operations at an already-congested gateway. As the operational realities of the New Orleans example show, a combined UP/NS would impair the vibrancy and health of the gateways that are critical to a flexible and resilient network. This merger would convert shared gateways into captive assets—cutting off competition from other railroads—and concentrate failure points. Customers will ultimately pay the price for that consolidation and control, including through bottlenecks and service disruptions.

This Merger Creates Substantial Integration Problems.

From an operator's perspective, integrating UP and NS would be a monumental challenge—at a scope and scale that has never been attempted or achieved. History teaches that integration problems are a virtual certainty. Every major Class I transaction in modern history—UP/SP, the Conrail break-up, and CP/KCS—produced significant service disruptions that harmed customers and required months or years to resolve. The consequences here would be bigger and more devastating to the national network and the shippers who rely on it.

This merger would require two large railroads to simultaneously change train plans, blocking, dispatching, terminals, crews, equipment, labor agreements, information systems, and customer processes—all while continuing to operate a national network that already runs near capacity. Demand on the network is rising. According to the AAR, "this year will set a new annual record" for intermodal, and

"[y]ear-to-date total carloads are the most since 2019."[16] An integration carried out at these volumes has less spare capacity to absorb a disruption. In other words, the complexity of the integration—and the consequences of a flawed one—are even more heightened today.

As an operator of a competing railroad, I am particularly concerned about the gateway impacts. This merger would layer additional volume onto already constrained infrastructure across key gateways—including at least Chicago, New Orleans, Kansas City, Memphis, and St. Louis. These are the specific nodes where I expect integration failures to be most acute and most consequential to competing railroads—and ultimately to shippers and other users of the national rail network.

From an operator's perspective, Applicants' Service Assurance Plan ("SAP") does not provide a meaningful remedy. The SAP is principally a monitoring framework—a plan to watch problems unfold, not a plan to prevent them. It has holes. For example, its operating benchmarks permit on-time origination as low as 25% at some yards; in other words, three of four trains could originate late out of a yard and still fall within Applicants' benchmark range.[17] A standard that permissive does not provide sufficient protection for interchange partners or shippers. In addition, the SAP defines no interchange service standard; provides no remedy for

[16] Association of American Railroads, *AAR Reports Weekly Rail Traffic for the Week Ending October 31, 2026* (Nov. 4, 2026), https://www.aar.org/news/aar-reports-weekly-rail-traffic-for-the-week-ending-october-31-2026/.

[17] Apr. 30, 2026 Am. App. Vol. 2, pp. 890-95, Turner VS ¶¶ 74-80, Table 12 (providing on-time origination range for legacy NS principal classification yards as: 25%-75%).

connecting carriers that experience service degradation; and fails to include a meaningful mechanism for timely Board oversight or enforcement.

In short: the integration risks are concrete, the historical precedent points in one direction, and Applicants have proposed no credible mechanism to prevent or contain the service disruptions that will follow. Our nation's supply chain does not need the integration problems that I understand have plagued prior Class I mergers. Risks from a UP/NS merger are exponentially greater and would extend to the entire U.S. rail network and supply chain. Given the success of the rail industry and promise of collaboration, I see no reason to upend a system that is working today to risk a restructuring of the industry.

There is a Better Way.

The better way forward is through increased collaboration among railroads and shared customers, greater technological creativity and innovation, and more strategic investments through privately funded infrastructure. Examples include the investments BNSF is making in BIG, and the new domestic intermodal service that UP and NS launched in September 2025 to connect customers using NS's Louisville intermodal facilities.[18] These partnerships provide more, not fewer, options for rail customers while preserving competition and operational flexibility.

[18] Norfolk Southern, *New Union Pacific and Norfolk Southern Intermodal Gateway Expands Market Access* (Sep. 15, 2025), https://www.norfolksouthern.com/en/newsroom/news-releases/new-union-pacific-and-norfolk-southern-intermodal-gateway-expands-market-access.

II. UP/NS Use an Unreliable Foundation.

This merger would create unnecessary risk for an industry that is succeeding—all in the name of network efficiencies that have been achieved or could be achieved without a merger. The rail industry has recovered since the 2023 trough that serves as the baseline for Applicants' benefits analysis. Selecting it ignores the steady recovery story. Applicants' benefits case is therefore built on a snapshot of the industry at a weak point that does not reflect the network operating today.

The industry and rail network have changed significantly over the last few years. Since 2023, the rail industry has steadily recovered to pre-pandemic peaks. The COVID-19 pandemic brought unprecedented difficulties and challenges to the rail industry. The pandemic caused severe delays at major U.S. ports and created bottlenecks throughout the industry. Due to a confluence of events stemming from the aftereffects of the pandemic that were outside the control of individual rail carriers, the years immediately following COVID-19 were very challenging for rail service.

Rail has now emerged from its trough. Since early 2023, rail intermodal volume has grown about 20%; it now sits about 8% above its 2019 level while truck tonnage sits about 3% below.[19] The volume recovery has been broad-based across Class I carriers. BNSF, UP, and CSX have all seen intermodal volume growth above 2019 levels. Meanwhile, the national network is stronger today. Class I operating

[19] AAR rail intermodal traffic and ATA truck tonnage index, via FRED (RAILFRTINTERMODALD11, TRUCKD11), through Q2 2026; *see also* workpaper WP02_Rail_recovery_vs_truck.xlsx, tab VS Figures, cell(s) B5-B8.

ratios have improved approximately 5%, and terminal dwell across Class I railroads has decreased 9%, even with increased volume.[20] These improvements are not marginal adjustments; rather, they reflect the impact of investments into and changes to the network.

Carriers have added capacity since 2023. Capacity drives the efficiency of the rail network. Capacity additions allow railroads to grow, and railroads have grown traffic because of the capacity additions (such as intermodal pop-up yards, building out merchandise yards, and increased siding lengths). Because Applicants measure the merger's benefits against a 2023 network that did not yet have that capacity, their analysis credits the merger with service and capacity gains that the industry has already achieved on its own. In other words, Applicants are modeling against the wrong base.

- ***BNSF Network Expansion.*** At BNSF, for example, we added two processing tracks of about 20,000 feet each at Becker, New Mexico, which resulted in a 30% improvement to the throughput capacity of the Belen terminal complex; added double track on the Emporia Subdivision in Kansas;[21] added two 10,000-foot sidings between Phoenix and Flagstaff;[22] and, in July 2025, opened a Salt Lake City intermodal facility with Patriot

[20] *See* STB Ex Parte No. 724 Rail Service Data (last modified Oct. 29, 2026), https://opendata.stb.gov/explore/assets/ep724-public-data/; BNSF, UP, NS and CSXT, weekly, Jan. 2023-Jun. 2026 (last modified Oct. 29, 2026), https://opendata.stb.gov/explore/assets/ep724-public-data/; Form 10-Q filings for the quarters ended March 31, 2023 and June 30, 2026; *see also* workpaper WP04_ClassI_OR_and_dwell.xlsx, tab VS Figures, cell(s) B5-B6.

[21] Susan Green, *Twice As Nice: BNSF's Southern Transcon Route Gets Closer To Being Fully Multi-Tracked*, BNSF RAILWAY RAIL TALK (Nov. 20, 2024), www.bnsf.com/news-media/railtalk/service/emporia-sub.html (describing the addition of "51 miles of new double track . . . on BNSF's Emporia Subdivision[,]" reducing travel time by ninety minutes).

[22] Susan Green & Mike Pagel, *Capital Expansion Projects Enable BNSF, Customers to Grow*, BNSF RAILWAY RAIL TALK (Oct. 13, 2025), https://www.bnsf.com/news-media/railtalk/service/capital-expansion-projects.html.

Rail and the Utah Inland Port Authority.[23] BNSF's Cicero expansion in Chicago also added about 175,000 lifts a year of intermodal capacity.[24]

- ***NS Corridor and Yard Improvements.*** NS has put more than $200 million into its 3B corridor in Alabama (adding sidings, signals and yard capacity), raising train speeds through Birmingham's 14th Street Junction from 15 to 55 miles per hour, and cutting dwell at Norris Yard by 13 hours.[25] At Elkhart Yard, the share of cars making their planned connections rose from 81% to 90%,[26] and NS plans to nearly double capacity at its Livernois intermodal terminal in Detroit, from 147,000 to 277,000 lifts a year.[27]

- ***UP Intermodal Terminals.*** UP opened a new Kansas City intermodal terminal in July 2025, with 30% more lift capacity than the Neff Yard ramp it replaced.[28] UP also expanded its Inland Empire terminal in Southern California to support a service to Chicago—up to 20% faster than other options.[29]

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[23] Utah Inland Port Authority, *BNSF Railway Opens New Salt Lake City Intermodal Facility* (July 31, 2025), https://inlandportauthority.utah.gov/all-news/bnsf-railway-opens-new-salt-lake-city-intermodal-facility/.

[24] Eunice Archila, *Cicero Intermodal Expansion Delivers Capacity, Sustainability and Customer Value*, BNSF RAILWAY RAIL TALK (Nov. 19, 2025), https://www.bnsf.com/news-media/railtalk/service/cicero-intermodal-facility.html.

[25] Norfolk Southern, *Norris Yard Drives Performance Improvements* (Sep. 26, 2024), https://www.norfolksouthern.com/en/newsroom/story-yard/norris-yard-drives-performance-improvements ("The yard has reduced the average time that trains remain idle by 13 hours compared to 2023"); *Norfolk Southern to Make Strategic Investments in Alabama* (Aug. 1, 2024), https://www.norfolksouthern.com/en/newsroom/news-releases/norfolk-southern-to-make-strategic-investments-in-alabama.

[26] Norfolk Southern, *Elkhart Yard Increases Fluidity and Adds Capacity* (Feb. 21, 2025), https://www.norfolksouthern.com/en/newsroom/story-yard/elkhart-yard-increases-fluidity-and-adds-capacity ("The Elkhart team has, in a short time, increased the yard's connection performance from a historical 81% to an average of 90% daily. This translates to an additional 160 cars per day . . . .").

[27] Sep. 4, 2026 Am. App. Vol. 2, pp. 921-22, Turner VS ¶ 103.

[28] Union Pacific, *New Kansas City Terminal Begins Operations July 15*, Announcement No. PR2025-44 (June 16, 2025), https://www.up.com/announcements/intermodal/PR2025-44.

[29] Union Pacific, *New Truck Competitive Intermodal Service to Kansas City and Chicago*, Announcement No. PR2025-61 (Aug. 7, 2025), https://www.up.com/announcements/intermodal/PR2025-61.

- ***CSX/CPKC Southeast Mexico Express.*** CSX and CPKC rebuilt the former Meridian & Bigbee Railroad to launch a dedicated intermodal Southeast Mexico Express train in May 2026.[30]

None of this added capacity is reflected in the 2023 baseline. Omitting that capacity—and the impacts of the other network improvements made in the last few years—leaves an inaccurate picture of what the projected merger growth is measured against. In short, the rail network is fundamentally different today than it was in 2023. A traffic analysis or operating plan that does not reflect what has actually happened—i.e., all the growth and service improvements over the last few years—is not one that I would use for my railroad.

III. Even Taking UP/NS's 2023 Baseline, This Merger Does Not Deliver the Claimed Benefits.

Even if 2023 were the right starting point, Applicants' benefit claims are not credible to me. Their projections rest on an unrealistic interchange dwell assumption and on equipment that Applicants have not shown they can secure. And railroads are already delivering the service improvements through interline coordination and investment—all without a merger.

A. The Merger Benefits Are Overstated.

Applicants' projected traffic gains depend on assumptions that do not hold up operationally. Their model overstates the delay that single-line service might reduce,

[30] CSX News Daily, *CSX, CPKC Upgrade Southeast Mexico Express With Dedicated Train, Faster Transit Times* (May 6, 2026), https://investors.csx.com/news-and-events/news/news-details/2026/CSX-CPKC-upgrade-Southeast-Mexico-Express-with-dedicated-train-faster-transit-times/default.aspx.

and Applicants have not shown that they have the equipment necessary to carry the traffic they project.

(i) The truck-to-intermodal model uses an unrealistic dwell time assumption.

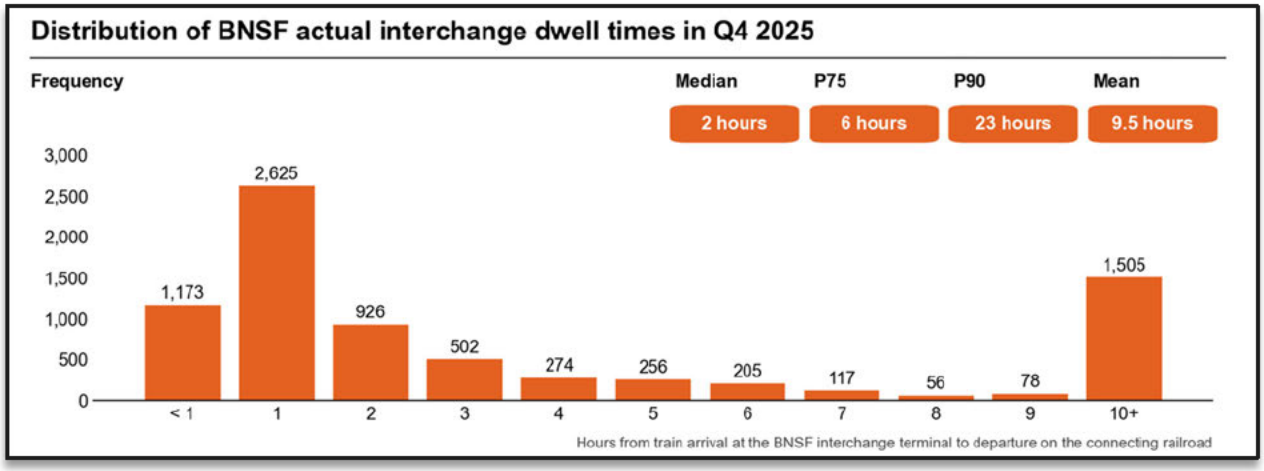
As noted above, Applicants use a flat 22-hour figure for interchange dwell in their truck-to-intermodal ("T2IM") diversions.[31] This 22-hour figure is drawn from the STB's system-wide average terminal dwell, which measures how long cars sit in a railroad's own yards and is driven primarily by classification and block-building. Run-through trains are not represented in the 22-hour number,[32] which is a problem because they greatly affect the figure. A run-through train is a train that enters and departs a terminal intact and, when interchanged, is handed from one railroad to another intact, without being broken apart and reclassified in a yard—as BNSF does when it hands its Los Angeles-to-Atlanta trains to CSX at Birmingham. Including intermodal trains with modest in-yard classification would dramatically reduce the 22-hour figure.

Further, use of a 22-hour average is not credible to me because it does not represent true interchange time. For loaded intermodal cars that BNSF delivered to other Class I carriers in the fourth quarter of 2025, median interchange time was approximately 2 hours, the average was about 9.5 hours, and approximately 90% of

[31] Sep. 4, 2026 Am. App. Vol. 2, pp. 416, 527, 557, Hunt VS.

[32] Sep. 4, 2026 Am. App. Vol. 2, p. 562, Hunt VS.

cars had interchange time below about 23 hours.[33] This measures car-level dwell from a car's arrival at the BNSF interchange terminal to its departure from the connecting carrier's location.



The 22-hour system-wide terminal dwell does not measure interchange time. It does measure the switching, classification, and block-building that carload traffic requires regardless of who owns the line. The average is pulled upward by a small tail of outliers—such as low density, service exceptions, and similar operational causes—not by any structural interchange penalty. For UP/NS, the merger does not remove this part of the dwell. By using an overinflated terminal dwell assumption, UP overstates the delay that single-line service might hypothetically eliminate. And by overstating the delay, it overstates the truck-to-rail conversions.

[33] *See* workpaper WP12_Interchange_dwell_Q4_2025.xlsx, tab VS figures, cell(s) B5-B7.

(ii) **Applicants have not provided evidence that they will have equipment to service the converted traffic.**

Projected traffic increases are only as good as the availability of the equipment to serve them—such as domestic containers, the intermodal well cars that carry them, and the chassis needed to move them at each end of the trip. I see no evidence that Applicants have secured the significant equipment requirements that their growth projections would imply. So even if Applicants' projections are correct, equipment capacity issues would constrain growth.

Applicants have not shown that the equipment required to serve the claimed traffic gains exists, nor have they committed to sufficient equipment investment. Much of the equipment Applicants rely on is outside their control. According to their filing, UP and NS control only 7,665 idle container units, with the remaining 84% of idle container units held by intermodal marketing companies and other parties.[34] Applicants also rely on others for well cars and most domestic containers. UP and NS source intermodal well cars from TTX, the railcar company owned by North America's major railroads.[35] Three intermodal marketing companies own about 203,000 domestic containers: J.B. Hunt about 125,000,[36] Hub Group about 51,000,[37]

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[34] Sep. 4, 2026 Am. App. Vol. 1, p. 312, Rocker/Elkins VS (noting UP and NS having 6,166 and 1,499 idle containers, respectively, of about 48,000 idle containers total); *see also* workpaper WP13_Container_surplus.xlsx, tab VS figures, cell(s) B10-B11.

[35] *See* Norfolk Southern, *Equipment*, NORFOLK SOUTHERN, https://www.norfolksouthern.com/en/ship-by-rail/shipping-tools/equipment; TTX, *Equipment-About TTX* https://www.ttx.com/about/equipment/.

[36] J.B. Hunt Transport Services, Inc., Form 10-K (fiscal period ending Dec. 31, 2025) ("At December 31, 2025, JBI operated 124,838 pieces of company-owned trailing equipment systemwide.").

[37] Hub Group, Inc., Form 10-Q (quarterly period ending Sep. 30, 2025) ("We arrange for the movement of our customers' freight in one of our approximately 51,000 containers.").

and Schneider about 27,000.[38] In my experience, equipment held by third parties is generally committed to those parties' own customers, and a railroad should not plan around it as though it were its own reserve.

In any event, the available surplus is shrinking. Applicants have not updated their fleet estimate to reflect intermodal growth since 2023. Adding equipment is also not a quick fix: many containers are manufactured in China, so new purchases are subject to production lead times, tariffs, and other factors outside of Applicants' control. These are real, thorny operational questions that Applicants did not answer, and without credible answers, the alleged merger-created growth can only be theoretical.

Next, Applicants' equipment analysis counts containers only. A domestic container cannot move without a chassis at each end of the trip, and Applicants do not say who or what will supply the additional chassis or where the chassis will be staged. NS is already short of chassis at today's volumes. In September 2026, NS ran out of 53-foot chassis at its Harrisburg and Rutherford terminals in Pennsylvania, and it limited the containers it would accept. Some containers waited more than a week to be delivered, and the shortage spread to Morrisville, outside Philadelphia. Shippers had few alternatives, as NS is the only practical rail option for cargo moving through central Pennsylvania. CSX's nearest terminal is 55 miles

[38] Schneider National, Inc., Form 10-K (Dec. 31, 2025) ("Our company-owned transportation equipment fleet consisted of the following as of December 31, 2025 . . . : 26,800").

away, so diverting freight there would have taken longer and been more expensive.[39] When the Board asked how Applicants would supply the chassis their growth requires, they quoted a logistics company who said in December 2025 that chassis capacity is "robust."[40] It is not today.

From an operator's perspective, this is where plans fail in practice. When equipment does not match volume, the railroad does not absorb the shortfall—shippers do. Loads go uncovered, service commitments slip, and customers who were promised a truck-competitive product learn there is no box available when they need one. Without secured equipment, the claimed traffic gains remain speculative.

* * * * *

Even if a 2023 baseline is used, the traffic gains are overstated. When the starting point is this wrong, the dwell assumption this inflated, and the equipment this uncertain, the traffic forecast—and the Operating Plan that depends on it—is unreliable. I would not make operational commitments on flawed plans like these.

B. Applicants Can Deliver the Purported Benefits Today, Without a Merger.

Applicants' merger thesis rests on two key premises: ***first***, that interchange between railroads is inherently problematic, and ***second***, that only a merger can eliminate the delays and service shortcomings that Applicants attribute to

[39] Ex. 4, Ari Ashe, *NS Chassis Shortage Disrupts Freight Deliveries in Pennsylvania*, JOURNAL OF COMMERCE (Sep. 3, 2026).

[40] UP-80/NS-78 at 102 (STB filed July 27, 2026) (Response to PB-5) (quoting Gary Ahlstrom, *Intermodal in 2026: Capacity, Consistency, and Confidence in an Uncertain Market*, STG Logistics (Dec. 16, 2025), https://www.stgusa.com/newsnotices/intermodal-in-2026-capacity-consistency-and-confidence-in-an-uncertainmarket/)); July 27, 2026 Am. App. Vol. 1, p. 313, Rocker/Elkins VS ¶ 84.

interchange friction. In my professional judgment, those premises are just wrong. In reality, interline performance depends on density, frequency, interchange timing, block size, terminal capacity, and dispatching discipline—not simply whether one railroad owns both sides of the move. And, as I noted above, joint interline service already delivers the benefits Applicants claim a merger is required to achieve.

(i) **Debunking the Flawed Interchange Premise.**

Single-line service is not necessarily better than interline service. Single-line service is not a cure-all for interchange friction. Operationally, there is nothing that happens in an interline movement that does not also happen in a single-line movement of comparable distance. The speed at which the physical work of the hand-off occurs—whether between railroads or across territories on a single railroad—is a function of the coordination of the fluid movement through the gateway or the terminal (such as efficient crew changes). The technology and infrastructure needed to perform the hand-offs already exist and are getting better, and a merger is not necessary to improve it.

Interline service is governed by the same practical variables as single-line service. Crew assignments and federal safety rules apply the same way to both kinds of service. Each crew runs trains only within its assigned crew district, so a train changes crews at set points along its route, and federal law limits each crew to 12 hours on duty.[41] Federal brake rules require a brake test where the train is assembled and another test at least every 1,000 miles, or up to 1,500 miles for trains

[41] 49 U.S.C. § 21103(c) ("Limitations on duty hours of train employees").

that qualify as extended haul.[42] Not one of those variables is controlled by common ownership alone.

Next, Applicants' claims about faster service need to be put in context. Shippers care about whether a movement arrives when promised, whether the transit time is consistent, whether equipment is available, and whether exceptions are handled promptly. Although some shippers value speed for some moves, a predictable interline service is more useful than a faster scheduled single-line service that is less reliable in practice. Private-car owners and grain shippers who track turns over a month or a season benefit from predictable cycle times. These shippers rely heavily on scheduled, predictable windows. Even if speed increases, if variability also increases, then it creates a series of operational bottlenecks that degrade efficiency. For instance, increased variability can cause missed connection windows, bunching and plant congestion (resulting in increased demurrage or embargo), terminal and yard congestion, and asymmetric asset and resource utilization (i.e., to maintain high turns, assets and resources must be perfectly aligned or else any speed efficiencies may be lost). That helps explain why, in my experience, shippers generally prioritize consistent and predictable service in order to maximize their equipment utilization.

Hitting delivery windows is important. For many supply chains, an hour saved somewhere in the timetable is worth nothing if the shipment misses the delivery window. Arriving early can be as disruptive as arriving late. A customer's plant can

[42] 49 C.F.R. §§ 232.205 ("Class I brake tests-initial terminal inspection"), 232.207 ("Class IA brake tests—1,000 mile inspection"), 232.213 ("Extended haul trains").

load or unload only so many cars a day, and when cars arrive in large quantities, the customer pays demurrage on cars it cannot yet handle. Intermodal customers face a similar issue: a customer that schedules warehouse labor and drays for a set delivery window may have no dock space for a box that shows up a day early.

To be sure, railroads look to improve interchange efficiency. There is a great deal two railroads can do together—short of a merger—to improve interchange efficiency. Independent carriers address these considerations every day through schedules, operating agreements, block-swaps, equipment arrangements, and accountability for performance. When entities have a commercial reason to provide faster service, the fact that the movement crosses an ownership boundary does not prevent them from designing and operating it effectively.

Finally, I am not aware of a systemic service failure attributable to an interline structure itself—as distinguished from an operational failure by a particular carrier—that could be remedied only by merging the two interline carriers. Where an interline movement performs poorly, the causes are the same as those that impact single-line movements: congestion, crew availability, mechanical problems, weather, or a failure to execute the operating plan. Joint ownership may consolidate blame for those operational issues under one railroad, but it does not make those underlying causes disappear. Rather, as I discuss below, a merger would actually compound the issue by reducing the options available to route around those problems.

In short, my operating experience and the evidence I have reviewed reflect that interchange is not the inherent impediment that Applicants portray. Rather, it is an

existing, manageable operational factor that the industry has already developed effective tools to address.

(ii) **History Shows that Interline Coordination Works.**

The rail industry has developed effective tools to improve service without the risks of consolidation.

As shown by the BNSF-CSX services highlighted above, interline coordination can produce superior alternatives without the costs and risks of an industry-altering merger. BNSF's Los Angeles-Northwest Ohio service with CSX runs to its published schedule. Since the lane moved to expedited service in late 2025, BNSF's trains have averaged about 88 hours, against the 89-hour schedule we published in November 2025.[43] BNSF and NS have run coast-to-coast intermodal trains between Southern California and the New York area since 2001. BNSF hauls the train from Southern California to Chicago, then NS moves the train to Croxton, New Jersey—following a crew change at NS's Ashland Avenue Yard in Chicago—without breaking the train apart or trucking containers across Chicago.[44] In the fourth quarter of 2025, cars

[43] Ex. 2, BNSF Railway, *Faster Coast-to-Coast Solutions: BNSF and CSX Launch New Intermodal Schedules to Ohio Valley and Northeast* (Nov. 14, 2025) (providing the schedule for Los Angeles-Northwest Ohio as 89 hours); *see also* Ex. 5, BNSF transit time data, SCAL-Northwest Ohio Transit Times and Units, Jan. 2024–July 2026.

[44] FleetOwner, *BNSF, Norfolk Southern Offer Joint Intermodal Service* (Aug. 20, 2001), https://www.fleetowner.com/news/article/21669145/bnsf-norfolk-southern-offer-joint-intermodal-service.

from these trains departed Chicago on NS a median of 1.6 hours after our train arrived.[45]

Effective interline coordination is not only a BNSF story. Other carriers—including UP and NS—have achieved similar kinds of interline improvements that Applicants claim only this merger can deliver.

- ***CSX/CPKC Southeast Mexico Express.*** The Southeast Mexico Express illustrates that major interline improvements can be achieved without a merger. CSX and CPKC reduced Atlanta-to-Dallas transit by approximately 24 hours (33%) through coordinated train scheduling and dedicated equipment. Their broader coordinated operations produced transit time improvements ranging from 20-45%.[46]

- ***UP/CN/GMXT Falcon Premium.*** Falcon Premium likewise shows the value of coordination without common ownership. UP, CN, and Grupo México Transportes collaborate to provide cross-border through service.[47] CN publishes Monterrey-to-Toronto transit at 5.1 to 5.4 days, a roughly 72-hour northbound reduction from previous times.[48] Even as UP tells the Board that interchange problems can be eliminated only through a merger, it helps operate a service that CN markets as "seamless all-rail" that eliminates truck interchanges and reduces Chicago trucking.

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[45] *See* Sep. 4, 2026 Am. App. Vol. 2 p. 416, Hunt VS; *see also* workpaper WP12_Interchange_dwell_Q4_2025.xlsx, tab VS figures, cell(s) B8.

[46] CSX News Daily, *CSX, CPKC Upgrade Southeast Mexico Express With Dedicated Train, Faster Transit Times* (May 6, 2026), https://investors.csx.com/news-and-events/news/news-details/2026/CSX-CPKC-upgrade-Southeast-Mexico-Express-with-dedicated-train-faster-transit-times/default.aspx.

[47] CN, *The Falcon Premium: Canada-US-Mexico Intermodal Service*, CN (June 16, 2025), https://www.cn.ca/en/stories/20250616-falcon-premium-canada-us-mexico-intermodal-service/.

[48] *Union Pacific Speeds Up Cross-Border Intermodal Transit Times* (Sep. 26, 2023), https://www.supplychaindive.com/news/union-pacific-canadian-national-Grupo-Mexico-improved-falcon-premium/693633/; Sep. 4, 2026 Am. App. Vol. 2, p. 360, Hunt VS; UP-80/NS-78 at pp. 139-40, 363 (STB filed July 27, 2026), MS-2 and PB-8; Union Pacific, *New Union Pacific and Norfolk Southern Intermodal Gateway Expands Market Access*, Announcement No. PR2025-73 (Sep. 15, 2025), https://www.up.com/announcements/intermodal/PR2025-73.

- ***UP/NS Interline Services.*** UP and NS have long operated coast-to-coast lanes under contractual transit-time commitments, all without a merger.[49] Most recently, in September 2025—after their merger announcement—UP and NS launched Louisville-to-West-Coast service through Kansas City Intermodal Terminal ("KCIT"), saving up to 25 hours of transit time.[50] This improvement in service is achieved, in part, by capitalizing on KCIT efficiencies—including a 30% increase in throughput lift capacity, improved highway access, and gate automation.[51] So while Applicants claim that "[r]ailroads cannot contract their way to a seamless network through alliances and marketing agreements,"[52] they are doing it every day in the real world.

In short, the tools for better service already exist. The industry is working well together. Capital investments and long-term partnerships are paying dividends. I see no reason to jeopardize that collaboration, particularly in light of the operational risks that I address next.

IV. If Approved, This Merger Will Harm the Rail Network.

This merger risks significant operational harms to the rail network. History shows that every major Class I merger has produced serious service problems. There is no reason to think this merger—which is larger and more complex than any before it—would buck that trend. While Applicants have proposed plans to mitigate that

[49] Union Pacific News Release, *Union Pacific and Norfolk Southern Offer On-Time or Free Service Guarantee on New Coast-To-Coast Westbound Intermodal Service Through Shreveport* (Oct. 1, 2007), https://www.uprr.com/newsinfo/releases/service/2007/1001_lasertrain.shtml.

[50] Union Pacific, *New Union Pacific and Norfolk Southern Intermodal Gateway Expands Market Access* (Sep. 15, 2025), https://www.up.com/news/growth/louisville-intermodal-service-it-250915.

[51] Union Pacific, *New Truck Competitive Intermodal Service to Kansas City and Chicago*, Announcement No. PR2025-61 (Aug. 7, 2025), https://www.up.com/announcements/intermodal/PR2025-61; Union Pacific, *New Kansas City Terminal Begins Operations July 15*, Announcement No. PR2025-44 (June 16, 2025), https://www.up.com/customers/announcements/premium/allpremium/PR2025-44.html.

[52] UP-80/NS-78 at 166 (STB filed July 27, 2026) (quoting Apr. 30, 2026 Am. App. Vol. 1 p. 266, George VS ¶ 58).

risk, those plans are limited and insufficient. For example, Applicants' proposal relies on average capacity at terminals and gateways that already run near their limits. This merger would also shift traffic at several gateways simultaneously, repeating what BNSF experienced at Laredo following CP/KCS, but on a larger scale. And Applicants have not offered an adequate plan to recover when problems arise or to protect the connecting railroads and shippers that depend on the network.

A. Every Prior Merger Has Led to Service Issues.

History shows that integration problems are a virtual certainty. The impacts are felt not only by the merged carriers but also by peer railroads and by shippers all over the national network. When major rail transactions create service problems, the consequences range from shippers not being able to locate their freight during the UP/SP crisis[53] to UPS moving about half of its intermodal traffic to trucks after the Conrail split.[54]

Most recently, the CP/KCS merger—a transaction far smaller and more focused than what UP/NS proposes—experienced a failed IT cutover at Shreveport that drove terminal dwell from approximately 35 to 68 hours and took the network

[53] STB Press Release, *Surface Transportation Board Opens "UP/SP" Traffic In Houston Tex Mex, Takes Other Steps to Mitigate Rail Service Problems in Western U.S.*, Service Order No. 1518 (Oct. 31, 1997), https://www.stb.gov/wp-content/uploads/archived-press-release/htmls/03866DC20E494A508525654D0059223B.html.pdf ("Shippers . . . testified about the difficulties they have had in moving, and sometimes even locating, their freight.").

[54] Transport Topics, *UPS Says CSX, NS Delays Worsening* (Aug. 26, 1999), https://www.ttnews.com/articles/ups-says-csx-ns-delays-worsening ("Rail giants CSX Corp. and Norfolk Southern Corp. are losing half their business from one of their largest customers - United Parcel Service - because of delays and problems since the railroads carved up Conrail's Northeast routes.").

about seven months to recover.[55] BNSF felt these effects firsthand. At the time, BNSF interchanged approximately {{ [redacted] }} cars a day with CPKC at our Knoche Yard in Kansas City. After the cutover, CPKC lost track of the cars in its yards, and its trainmasters recounted inventory by hand. Knoche could not accept BNSF's deliveries for three days, which backed up our Argentine Yard—one of the most important yards in our merchandise network—for approximately five days, and it took more than two weeks to clear entirely. Average dwell at Knoche rose from about {{ [redacted] }} before the cutover to {{ [redacted] }} the following week, and stayed above {{ [redacted] }} for six weeks.[56] If a much smaller merger between two railroads with a single primary junction point can produce a disruption of this magnitude, the integration of UP and NS—two of the nation's largest railroads, with multiple shared gateways, many shared customers, and overlapping operations across the entire country—presents integration risks of a fundamentally different order of magnitude.

Prior mergers also show how quickly the negative effects of operational concentration can spread beyond a single location—and how long these effects can last. During the UP/SP integration, congestion that began in the Houston area

[55] STB Ex Parte No. 724 rail service data, average terminal dwell time, Shreveport, LA, weekly, Oct. 2024-Feb. 2026, https://opendata.stb.gov/explore/assets/ep724-public-data/ (reporting by KCS through the week of Apr. 26, 2025 and by CPKC from the week of May 3, 2025); FreightWaves, *CPKC System Cutover Triggers Service Woes In Some Former KCS Locations* (June 11, 2025), https://www.freightwaves.com/news/cpkc-system-cutover-triggers-service-woes-in-some-former-kcs-locations (providing cutover weekend of May 3, 2025); *see also* workpaper WP11_CPKC_cutover_dwell.xlsx, tab VS figures, cell(s) B5-B7.

[56] *See* workpaper WP11_CPKC_cutover_dwell.xlsx, tab VS figures, cell(s) B5, B8-B10.

spread across UP's 36,000-mile system and onto other railroads.[57] The STB's emergency order then directed UP/SP to let BNSF and the Texas Mexican Railway ("Tex Mex") move traffic ***around*** Houston, rather than through it, and to accept help from other railroads; these measures were put in place only after the failure had occurred and shippers were suffering.[58] That experience, like the Laredo experience described below, shows how concentrating failure points can damage shippers, competing carriers, and the broader supply chain.

B. All Signs Indicate that the UP/NS Merger Will Repeat that History, and the Gateways are at Particular Risk.

These prior merger experiences confirm a consistent pattern: a failure at one location propagates well beyond that location, cascading across the network in ways that the merging parties did not anticipate and could not quickly reverse. The question is not whether integration problems will occur, but how severe and prolonged they will be—and which group of shippers will bear the most painful consequences.

I am particularly concerned about shared gateways—Chicago, New Orleans, Kansas City, Memphis, and St. Louis—where this merger would layer additional volume onto infrastructure that is already constrained. New Orleans is a good

[57] *See* United States General Accounting Office, Surface Transportation Board's Oversight Could Benefit From Evidence Better Identifying How Mergers Affect Rates, GAO-01-689 (July 2001), https://www.gao.gov/assets/gao-01-689.pdf; Chicago Tribune, *Railroad Jammed by Mergers Loses Track of Itself* (Dec. 7, 1997), https://www.chicagotribune.com/1997/12/07/railroad-jammed-by-mergers-loses-track-of-itself/.

[58] Fed. Reg. Document No. 98-8827 (Apr. 3, 1998), https://www.govinfo.gov/content/pkg/FR-1998-04-03/html/98-8827.htm.

example. There, Applicants plan to add eight trains per day on the Back Belt and to move BNSF's interchange with NS to UP's Avondale Yard.[59] BNSF's trains to CSX at Gentilly still cross the HPL Bridge and the Back Belt. In the past, backups caused by a railroad's inability to receive interchange forced BNSF to hold trains bound for the east over New Orleans as far away as West Texas—consuming track space, locomotives, and train crews that beaome unavailable for other assignments on BNSF's network. A merger-related integration service disruption—amplified by the additional congestion implied by UP's planned additional trains—would have the potential to paralyze the rail network.

The problems compound across the network. A delay at one terminal or interchange sends cars, containers, locomotives, and crews late to the next location, where they occupy capacity needed for other traffic. The effects spread through multiple gateways rather than staying where they started. Shippers respond quickly. A shipper that cannot rely on rail will move freight to truck or barge to protect its production and customer commitments, often for six months or more, as the Conrail experience showed. Once a shipper has adjusted its equipment, inventory, and customer arrangements, that traffic does not come back as soon as service recovers, and repeated failures can turn a temporary shift into a lasting loss of rail volume.

Service failures on UP/NS would also reach BNSF's customers directly. At facilities that are served by both railroads, the two railroads' operations are physically linked, so a delay on one quickly becomes a delay on the other. At one

[59] Sep. 4, 2026 Am. App. Vol. 2 pp. 715, 767-68, 770-71, Gehringer/Orr VS ¶¶ 225, 328, 334.

Texas manufacturing plant, for example, BNSF and UP serve the plant over shared track, and the plant has no yard of its own to hold cars. When UP is slow to pull its cars, those cars occupy the track that BNSF needs, and we cannot place empties for the customer to load or pull the loads it has ready to ship. The customer's BNSF shipments simply wait until UP clears its cars. If UP/NS service deteriorates during integration, customers at shared facilities like this one would feel it on both railroads—including the one that had nothing to do with the merger.

The risks of integration failure are only magnified here due to the scope and scale of the transcontinental transaction. The merged carrier would need to integrate dispatching systems, IT platforms, labor agreements, crew districts, terminal operations, train plans, and equipment management—all across a network that already operates near practical capacity. As it stands, UP/NS's planned growth would run through infrastructure that is already constrained—meaning Applicants would ask the network to absorb new volume, new routings, terminal consolidations, and dispatching changes in the very places that already have limited recovery margins.

A combined UP/NS would need to reconcile operating practices developed for two very different networks, at the seam between the West and the East. Practices built for long western hauls do not necessarily carry over to the East because the eastern network is built differently. Eastern railroads generally run shorter trains, with shorter sidings, more grade crossings, and terminals in dense urban areas with less room to stage trains. The combined UP/NS will be under pressure to achieve its

synergy targets quickly, but acquiring land, securing permits, and physically building infrastructure improvements to handle long trains takes time.

Beyond operating practices, this merger would also strain terminal capacity beyond prudent operating levels. Applicants plan facility utilization around the average expected volumes, but in reality, facility volumes fluctuate day-to-day or even shift-to-shift. This means that there are likely many days where a facility with an average utilization close to capacity will actually exceed capacity. More than ten UP/NS terminals are expected to exceed 80% average utilization post-merger—a level at which normal daily variance routinely pushes facilities above practical capacity.[60]

Similarly, Applicants claim there is sufficient intermodal terminal capacity in the Growth Plan by comparing average terminal volume against stated capacity. Again, rail volumes (particularly intermodal) can swing from week-to-week, day-to-day, and even shift-to-shift to match customer demands and warehouse want-time slots, so a terminal planned at 80% on average will run above its practical capacity on its busiest days.[61] In Chicago, for example, Applicants propose closing two intermodal terminals and redirecting their traffic to Global 2 and 47th Street,[62] pushing both facilities above 80% utilization.[63] At these levels, normal variance will

[60] Sep. 4, 2026 Am. App. Vol. 2 pp. 887, 889, Turner VS, Tables 8-11; *see also* workpaper WP05_Terminal_utilization.xlsx, tab VS Figures, cell(s) B5.

[61] Sep. 4, 2026 Am. App. Vol. 2 p. 754, Gehringer/Orr VS, Table 10; *id.* at p. 631, Gehringer/Orr VS, Table 10; *id.* at pp. 887, 889, Turner VS.

[62] Sep. 4, 2026 Am. App. Vol. 2 p. 709, Gehringer/Orr VS.

[63] Sep. 4, 2026 Am. App. Vol. 2 pp. 887, 889, Turner VS; *see also* workpaper WP05_Terminal_utilization.xlsx, tab VS Figures, cell(s) B6-B7.

routinely push facilities above practical capacity—creating chronic dwell increases, queueing, and network spillback even absent extraordinary surges.

Even adding marginal volume will have a disproportionate impact on dwell time. When a railroad is in the upper quartile of its capacity, the impact of even a single car to overall dwell is magnified. Chicago showed how this plays out in July 2026. The Belt Railway of Chicago's ("BRC") Clearing Yard is the neutral hump yard where the railroads serving Chicago exchange traffic. It handled 8.4% more cars in 2026 than a year earlier and raised the number of cars it accepts each day in June.[64] It then lost capacity to a series of events: a tornado across the yard on June 11, a power failure on June 25, derailments on June 10 and July 27, a truck-fall incident into the receiving yard on July 26, and a second storm on July 27.[65] With the yard already full, the effects compounded. In the week ending July 29, 2026, Clearing held 5,048 cars—the most in the public record since 2017 and approximately 57% more than the same week in 2025.[66] Average dwell rose approximately 72% over the same period, from approximately 18 hours to 31 hours.[67] Since early April, inventory had risen 26% and dwell 63%.[68] That is what happens when a facility already running

[64] Letter from The Belt Railway Company of Chicago to the Surface Transportation Board, Re: Clearing Yard Service Performance (Aug. 10, 2026), https://www.stb.gov/wp-content/uploads/BRC_Response_to_STB_2026-08-10.pdf.

[65] *Id.*

[66] *See* workpaper WP06_BRC_Clearing_July_2026.xlsx, tab Output, cell(s) B5, B7.

[67] *See id.* at tab Output, cell(s) B8-B10.

[68] Letter from the Surface Transportation Board to Jerry Peck, President and General Manager, The Belt Railway Company of Chicago (Aug. 3, 2026), www.stb.gov/wp-content/uploads/8-3-26-Letter-from-STB-to-BRC.pdf; STB Ex Parte No. 724 consolidated weekly workbook,

near capacity loses its margin, and it is the condition Applicants' plan would make routine at Global 2 and 47th Street, among other terminals across the network.

C. The Lesson of Laredo, and How it Will be Compounded Here.

Laredo provides a clear example of what happens when one railroad comes to control both sides of a gateway. The risks are magnified here, where five critical gateways are in play. And the harm would not stop at the gateways themselves; rather, it would reach the interline options available to shippers and the suppliers on which every railroad depends.

After the CP/KCS merger, BNSF was forced to move its Mexico traffic from Laredo to Eagle Pass.[69] Volumes shifted. Now, BNSF partners with Ferromex to serve key Mexico lanes via Eagle Pass, but the U.S. approach depends on UP/SP trackage rights.[70] Operationally, moving traffic off an established gateway is neither simple nor costless. The Eagle Pass route has a longer run time than the Laredo route. Changing a gateway creates complexities—sometimes unexpected ones—that require operational changes that can be disruptive.

The effects were not limited to BNSF or its customers. Border-crossing data show how much traffic moves when a gateway changes hands. Laredo volume was

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https://www.stb.gov/reports-data/rail-service-data/; *see also* workpaper WP06_BRC_Clearing_July_2026.xlsx, tab Output, cell(s) B11-B12.

[69] *See* US DOT Bureau of Transportation Statistics, Border Crossing/Entry Data, data.bts.gov; workpaper WP08_Laredo_border_crossings.xlsx, tab VS figures, cell(s) B7-B8.

[70] Ex. 6, BNSF Railway, *Service Options In & Out of Mexico* (last accessed Nov. 6, 2026).

flat before the CP/KCS merger but has fallen approximately 6% per year since.[71] Between 2022 and 2025, annual northbound crossings at Laredo fell by 725 trains per year, while Eagle Pass gained 973.[72] This was not due to a decline in demand or a more efficient route or interchange. Total border rail volume is only 3% below its 2019 level, while Laredo is nearly 16% below, and Laredo truck crossings rose nearly 25% over the same years.[73] In operational terms, corridor demand grew while rail traffic was pushed onto a different, longer route. That was the cost of losing a ***single*** gateway.[74]

Here, the merger would affect not one gateway but five. Each gateway has its own terminal constraints, dispatching arrangements, and connecting carriers. The difficulty does not just add up—it ***compounds***. Shifting traffic on that scale ***without*** a realistic Operating Plan and the capital to support it would harm the carriers and shippers that depend on those gateways. By way of example:

- ***New Orleans.*** The merger would give UP/NS effective control over the HPL Bridge and the Back Belt—the chokepoint through which most Class I railroads and Amtrak must pass.[75] UP/NS plan to add eight new trains per

[71] *See* workpaper WP08_Laredo_border_crossings.xlsx, tab VS figures, cell(s) B6.

[72] *See id.* at tab Calc, cell(s) B7-B8.

[73] *See id.* at tab VS figures, cell(s) B9-B11.

[74] Diverting volumes can impact investment incentives. As one example from the 2023 time period, we reconsidered investments in our Southern Transcontinental route when (at that time) intermodal volume projections did not materialize as we expected. In 2019, BNSF completed the final design for the construction of a second, parallel mainline bridge that would upgrade the single-track segment of the Sibley bridge, which runs over the Missouri River, to double tracks. As of Spring 2022, BNSF estimated an investment in the construction of the second Sibley bridge of approximately {{ [redacted] }}, including nearly {{ [redacted] }} in 2022-2024. Ultimately, from 2022-2024, {{ [redacted] }} was invested in the project.

[75] Sep. 4, 2026 Am. App. Vol. 2 pp. 715-16, Gehringer/Orr VS.

day over the Back Belt,[76] putting utilization near fluid capacity[77] and placing about {{ [redacted] }} trains per day of BNSF-CSX interchange traffic at risk post-merger.[78] At Avondale in New Orleans, eastbound BNSF cars experience an average of 7.9 hours of dwell, waiting to traverse the track segments controlled by UP and NS, with approximately 10% of BNSF trains experiencing dwell times exceeding 16 hours.[79] From an operator's perspective, UP already controls when BNSF trains reach the bridge; giving UP/NS control of the Back Belt as well would leave BNSF's customers with no independent path through the gateway.

- ***Chicago.*** As detailed above, the proposed terminal consolidations would push Global 2 and 47th Street beyond prudent operating levels.[80] Applicants plan to move UP's Yard Center intermodal operations to NS's 47th Street terminal and NS's 63rd Street intermodal operations to UP's Global 2.[81] With merger growth, Applicants project Global 2 at 1,828 lifts per day against a capacity of 2,060 (89%), and 47th Street at 1,646 lifts per day against a capacity of 1,912 (86%).[82] Utilization at those levels leaves insufficient room for normal daily variance, pushing both terminals beyond prudent operating levels. That matters for the entire network. Chicago is where BNSF interchanges the largest share of our eastern traffic. When Chicago became congested in 2014, the disruption hindered nearly all carriers connecting through the region, and BNSF recovered by shifting interchange to St. Louis and Memphis.[83] BNSF's recovery depended on having NS and CSX available as independent partners so that we could move traffic through other gateways. Those arrangements work in part because each carrier knows it may need the same help in return, as optionality is what makes recovery possible. When one railroad struggles, traffic can shift to other routes and carriers, which takes load off the failing

[76] Sep. 4, 2026 Am. App. Vol. 2 pp. 767-68, 770-71, Gehringer/Orr VS.

[77] UP-80/NS-78, Supp. p. 180 (STB filed July 27, 2026) (Table PR-2: Most Segments Operate Well Below Capacity Thresholds).

[78] *See* workpaper WP14_New_Orleans_BNSF_dwell.xlsx, tab VS figures, cell(s) B7.

[79] *See id.* at tab VS figures, cell(s) B5-B6.

[80] Sep. 4, 2026 Am. App. Vol. 2 pp. 887, 889, Turner VS.

[81] Sep. 4, 2026 Am. App. Vol. 2 pp. 708-09, Gehringer/Orr VS ¶¶ 200, 203-04.

[82] Sep. 4, 2026 Am. App. Vol. 2 p. 889, Turner VS, Tables 10-11; *see also* workpaper WP05_Terminal_utilization.xlsx, tab VS Figures, cell(s) B6-B7.

[83] *See* 79 Fed. Reg. 18948 (Apr. 2014); Hearing Transcript, STB Ex Parte No. 724 (Apr. 10, 2014), https://www.stb.gov/wp-content/uploads/Transcript-2014-04-10.pdf.

system while it digs out. A combined UP/NS would remove that option, forcing it to recover while still carrying the full load—and recovering under excess load is far harder, as delays compound rather than dissipate.

D. Supplier and Other Concerns.

I am also concerned about how a merged UP/NS would dominate the supplier markets in which BNSF participates as a buyer. Many of those markets are already highly concentrated. For example, there are only two manufacturers capable of designing, producing, certifying, and supporting new freight locomotives for North American mainline service. Once a railroad commits to a locomotive platform, that choice can shape its operations for decades. Locomotives routinely remain in service for thirty years or more, creating long-term dependence on the original manufacturer for replacement parts, software upgrades, control-system modifications, emissions-compliance components, and technical support. The engineering expertise, manufacturing capacity, and regulatory requirements needed to serve this market, including the EPA's Tier 4 emissions standards, create substantial barriers to entry, making it unlikely that a new competitor will emerge in the foreseeable future. As a result, Class I railroads already operate in a market where meaningful alternatives are limited, which constrains our ability to negotiate pricing, delivery schedules, warranty protections, and long-term service arrangements.

This merger would constrain those choices further. Given the concentrated nature of these markets and the limited volume of annual orders, a buyer with outsized purchasing power could exert substantial influence over pricing, production schedules, product-development priorities, and the allocation of manufacturing

capacity (as a supplier gives preference to bigger customers relative to those with smaller orders). A dominant purchaser can push rates down until competing suppliers either go out of business or are forced to align with it. Even a pause in purchasing during a multi-year integration could be enough to push a vulnerable supplier out of the market. Manufacturers that remain would become increasingly dependent on that customer's business and therefore more likely to prioritize its technical specifications, delivery requirements, and modernization initiatives.

And the effects would extend beyond the dominant purchaser. A highly concentrated group of buyers ultimately produces a highly concentrated group of manufacturers. Other railroads could face less favorable pricing, longer lead times, reduced bargaining leverage, and diminished influence over future product development. Because locomotive platforms evolve over decades, those effects may take years to appear, but they would further limit the already constrained competitive choices available in this market. Ultimately, this would impair all the Class Is' ability to serve customers.

A similar set of concerns would apply to rail suppliers. There are currently only two domestic providers of steel rail and only one domestic steel mill wholly dedicated to manufacturing rail. The operator of that mill, Rocky Mountain Steel ("RMS"), recently signed a new long-term contract with UP. Given the size of the UP/NS network post-merger and the resulting demand, UP/NS's influence over RMS will be immense. RMS will naturally be inclined to prioritize UP/NS orders over those of other railroads, including BNSF, and will seek to offset pricing concessions it must

make to UP/NS with its pricing on other railroads. The relationship between the merged UP/NS and the limited, highly concentrated universe of rail suppliers would thus be a structural detriment to the ability of other railroads to maintain a state of good repair and cost structures for doing so.

Finally, cybersecurity concerns are heightened in a more concentrated industry, as the potential failure points are aggregated in a UP/NS consolidation. This matters for national defense. The military depends on freight railroads to move tanks, heavy vehicles, ammunition, and other equipment from bases to ports. Private railroads—such as BNSF, UP, and NS—supply the rail service to connect many military installations for the Department of Defense. Today, if one railroad's computer systems go down, the military can still move on other railroads. But if UP and NS combine into a single set of systems, one outage—whether an accident or a deliberate attack timed to a crisis—could stop a large share of that network at once, just when troops and equipment need to move. The Army has already told the Board in this case that it is watching to make sure the merger leaves "continued, adequate rail service to meet the needs of national defense."[84]

* * * * *

The size and scope of the proposed merger only multiplies all these risks. Laredo showed the cost of losing a single gateway; this merger would put five at risk at once, along with the competitive alternatives and supply base that the network

[84] United States Army Transportation Command Notice of Intent to Participate, Docket Filing No. 310272 (STB filed Nov. 19, 2025) (citing 49 C.F.R. § 1180.1(1)).

depends on to recover. UP/NS have not demonstrated enough recovery capacity, and their average-capacity analyses understate real service failure risks.

V. If the Board Were to Approve This Merger, the Board Should Impose Material Conditions.

I understand BNSF opposes the merger, including for the reasons I identified above. I also understand BNSF's position to be that, if the Board were nonetheless inclined to approve this merger and fundamentally transform the industry, then the Board should also impose commensurate conditions in an attempt to help address some of the significant harms that would result. While I do not believe the conditions described here would come close to solving the operational concerns that I have with this merger, they would at least mitigate some of the harm.

I highlight the operational aspects of BNSF's requests for (1) an interline preservation mechanism to keep gateways open; (2) requiring UP to install a neutral switching or terminal railroad that would directly serve all BNSF and UP rail-served facilities in the Gulf Coast; (3) ensuring neutral dispatching, operating procedures, and reporting requirements to maintain fluid operations in New Orleans; and (4) so that BNSF can reach CSX in the Memphis gateway, ensuring that existing agreements cannot be used to prevent construction or use of a proposed crossover.

A. If the Board Were to Approve This Merger, an Interline Preservation Mechanism Is Needed to Keep Gateways Open.

BNSF proposes a detailed mechanism to hold Applicants to their commitment to keep gateways open. BNSF proposed creating a permanent interline-equivalent haulage program modeled on the successful I-5 Agreement framework between BNSF

and UP. Under the agreement, we are required to treat traffic moving under the agreement the same way that we treat our own traffic. The I-5 proportional rate and haulage arrangement itself has operated for 29 years without major disputes. I view the proposed BNSF interline preservation mechanism primarily through the lens of network performance, resiliency, and transportation efficiency. During my BNSF career, I have served as Vice President of North Region Operations as well as General Manager of the Northwest Division, and in those capacities, I had firsthand experience planning and executing operations in support of the I-5 Agreement.

Freight rail service is delivered through the interconnected North American rail system in which the ability of carriers to interchange traffic at gateways plays a critical role in maintaining fluid operations and responding to changing network conditions. From an operational standpoint, preserving the effectiveness of those gateways following a major merger is essential to maintaining a healthy and resilient rail system.

Rail networks are dynamic. Traffic volumes fluctuate, economic conditions change, weather events disrupt operations, infrastructure requires maintenance, and unexpected service challenges arise across the system. One of the strengths of the North American rail network is the existence of multiple routing options that allow carriers to adapt to these conditions. Interline gateways provide critical flexibility by enabling traffic to move between rail systems and by creating alternative paths when capacity constraints or service disruptions occur elsewhere in the network.

When two major railroads merge, traffic that once moved between independent systems may become concentrated within a single network. Consolidation can reduce the operational importance of gateways that previously facilitated the movement of traffic between carriers. If gateways become less viable over time, the broader rail network will lose some of the routing flexibility that contributes to system resiliency and reliability.

The proposed interline preservation condition would ensure that gateways continue to function as effective links within the national rail network. By preserving objective mechanisms for interline traffic movements and supporting continued interchange activity, the condition helps maintain routing flexibility and operational redundancy. These characteristics become particularly valuable during periods of congestion, severe weather, infrastructure outages, major maintenance projects, or other situations that require carriers to adjust traffic flows to maintain service.

The proposed condition also supports efficient utilization of industrywide rail capacity. A stable gateway framework promotes long-term operational investment by connecting carriers. Railroads are more likely to invest in interchange facilities, terminal capacity, yard infrastructure, technology, locomotives, and workforce development when they have confidence that gateways will remain commercially and operationally viable over the long term.

The proposed condition also encourages operational predictability. Clear rules governing gateway access reduce disputes, create transparent expectations among carriers, and provide a reliable basis for planning train operations and capacity

utilization. Operating departments perform best when transportation flows can be planned and managed under predictable conditions rather than through ad hoc negotiations or recurring disagreements regarding interchange opportunities.

B. If the Board Were to Approve This Merger, Structural Changes Are Needed in the Gulf Coast to Preserve Competition.

BNSF proposes that the Board condition any approval of the UP/NS merger on the installation of a neutral terminal or switching railroad in the Gulf Coast region.

Terminal railroads are not a new or untested concept. They are a proven operating model that has served shippers and connecting carriers successfully for decades on other parts of the North American rail network.

- ***Houston.*** In Houston, for example, the Port Terminal Railroad Association ("PTRA") has provided neutral switching service along the Houston Ship Channel since 1924. Today, its members are BNSF, UP, and CPKC. PTRA operates as a Class III carrier over track owned by the Port of Houston, with roughly 170 miles of track, seven serving yards, and 20 bridges, and it handles thousands of cars each day for well over 100 customers, many of them major chemical and plastics producers.[85] Each Class I member has an equal vote on PTRA's board. No action having a substantial effect on operations, maintenance, or administration can pass without a unanimous vote. Costs are shared among the members based on their use.

- ***Alameda Belt Line.*** Another example is the Alameda Belt Line ("ABL") in California. In 2024, ABL assumed dispatching authority over the key Alameda Corridor in Los Angeles. Today, BNSF is collaborating with UP to support ABL's successful bid to provide all common carrier operations over the entirety of the terminal facilities for the Ports of Los Angeles and Long Beach.

- ***Joint companies.*** Other terminal companies—such as TRRA, KCT, and BRC—operate on the same basic principle. In each case, a single neutral

[85] Port Terminal Railroad Association Prepared for Transportation Sustainability Presentation 2019 https://www.swrailshippers.com/wp-content/uploads/sites/5/2019/03/Jeff-Norwood-Transportation-Sustainability.pdf.

operator serves the customers in a defined area and delivers their traffic to the line-haul carrier of the customer's choice.

These arrangements provide important benefits. A terminal railroad allows the facilities, yards, and track in a congested geographic area to be operated as a single, coordinated system rather than as a collection of competing and overlapping networks. The line-haul carriers focus on what they do best, moving traffic over long distances, while the terminal railroad focuses on the switching, classification, and local service that customers depend upon every day. Shippers benefit from reliable local service and access to competing line-haul carriers.

From an operating standpoint, a terminal company is best positioned to make full use of the pooled assets in a region like the Gulf Coast. Today, UP and BNSF each operate their own yards, crews, and local service in the region, often in close proximity to one another and frequently serving neighboring facilities. A neutral terminal railroad could plan local service across the entire territory; use yards and track based on where capacity actually exists rather than on who owns it; and develop a unified operating plan for the region, including interchanging with other terminal companies in the region such as PTRA. Consolidating operations under a neutral entity creates opportunities to reduce costs and to improve service, particularly through more flexible use of yards and infrastructure.

A neutral operator can also provide better service because it has no incentive to favor one line-haul carrier over another. Dispatching within the terminal territory would be performed by the terminal railroad's own employees—implementing dispatching parity—potentially in coordination with the existing consolidated

dispatching operations at Spring, Texas. Every car would be handled according to the same operating plan, regardless of which railroad will carry it on the line haul. That is fundamentally different from an arrangement in which one carrier controls the last mile and its competitor's traffic must wait its turn. Where one railroad controls dispatching for a competitor, its operating incentives will always be to serve its own traffic first, and that incentive will be stronger after the merger, as UP/NS concentrates more long-haul traffic on its Gulf Coast lines. A neutral terminal railroad removes that incentive altogether and provides line-haul-carrier-neutral service.

The Gulf Coast is precisely the type of territory where this model makes the most sense. The region, and the Houston area in particular, is characterized by a dense concentration of rail-served facilities, a complex patchwork of track ownership and trackage rights that is the product of historical merger settlements, and a heavy volume of traffic that makes the network prone to congestion and service disruption. A coordinated operating plan, administered by a single neutral operator, is well suited to managing that complexity.

Other remedies would not accomplish the same result here. Given the network and operational realities of the Gulf Coast area, trackage rights or haulage rights into closed facilities would leave UP in control of the dispatching and the "last mile," which would give UP the ability to favor its own traffic over that of its competitors. Reciprocal switching would leave the same problem in place: UP would still perform the switch and dispatch the territory, with the same incentive to serve its own traffic

first. That concern will only grow after the merger. A combined UP/NS would have every incentive to prioritize its own high-density traffic flows through the region, including the long-haul "superhighway" it plans between the Northeast and Mexico, at the expense of competing carriers that depend on access to the same lines. A neutral terminal railroad, with its own employees implementing dispatching parity, places competing carriers on an equal operational footing.

Neutral terminal service in the Gulf Coast region is feasible. It is not, however, something that can be designed overnight. Establishing a terminal railroad across a territory of this size will require careful planning. Questions such as the infrastructure the terminal railroad will operate over, the locations at which traffic will be interchanged with the line-haul carriers, the handling of movements within the region, and crew access and entry points into the territory will all need to be worked through in detail.

In the Gulf Coast, where UP already controls access to many shippers and the merger would expand its ability to leverage that control, preserving competition requires the neutral terminal railroad proposed by BNSF. UP therefore should develop the initial implementation plan, subject to Board review. Once UP has developed its plan, BNSF is prepared to collaborate with UP to refine and implement it, including by contributing its own operations in the region and opening its own closed facilities. With careful planning by UP and good-faith collaboration between the two carriers, under the Board's oversight, I am confident that a neutral terminal railroad can be implemented successfully in the Gulf Coast.

In short, the Gulf Coast condition applies a proven model that works today in Houston, in Los Angeles, in St. Louis, and elsewhere to a region where the competitive and operational harms of this merger will be acutely felt. A neutral terminal railroad would make better use of the assets already in place, provide reliable and nondiscriminatory service to customers, and at least mitigate some of the competitive harm created by the merger.

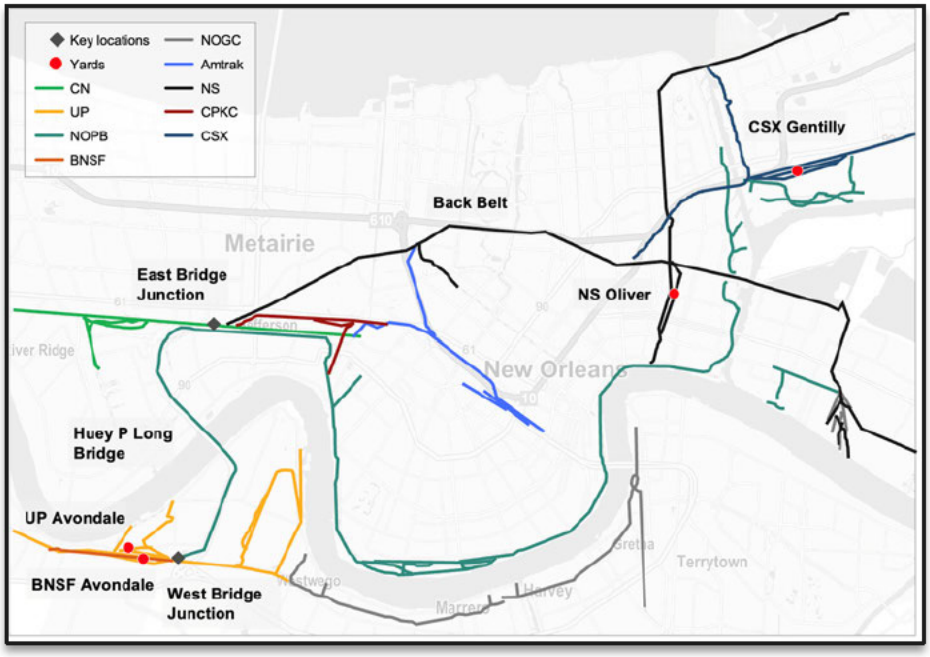
C. Board-Imposed Neutral Dispatching, Operating Procedures, and Reporting Requirements Are Necessary to Preserve Competition and Maintain Fluid Operations Within the New Orleans Gateway.

A combined UP/NS would have concentrated operational control over the critical shared infrastructure within the New Orleans gateway. The merger would give a combined UP/NS control over the shared infrastructure through which all carriers must pass. If the Board approves the transaction, it should require UP/NS to install a neutral dispatcher over key gateway infrastructure—including the HPL Bridge and the Back Belt—together with enforceable operating protocols, reporting requirements, and performance thresholds that would trigger additional Board remedies as gateway operations deteriorate. These measures are necessary to preserve gateway fluidity, protect competitive access for all carriers, and ensure the efficient operation of the gateway.

(i) The New Orleans Gateway Depends on Shared Infrastructure and Coordinated Operations.

New Orleans is one of the most complex and critical gateways within the United States. It is the only major Gulf Coast city where all Class I railroads,

Amtrak, the New Orleans Public Belt Railroad ("NOPB"), and multiple short lines connect, and it links rail customers across the Gulf Coast, Southeast, and western United States.



The New Orleans gateway is built around shared infrastructure used by all Class I railroads, Amtrak, and NOPB. The HPL Bridge, owned by NOPB, is the principal rail crossing of the Mississippi River. UP dispatches the HPL Bridge and its junctions, and NS owns and operates the Back Belt—the primary freight bypass through the city. Major yards include UP's Avondale Yard, BNSF's Avondale Yard, NS's Oliver Yard, and CSX's Gentilly Yard. Because BNSF accesses New Orleans from the west and does not own or control any of the critical infrastructure required for interchange with other carriers, we depend on fair and efficient access to the HPL Bridge and the Back Belt to reach our interchange partners and customers.

Access to a gateway is meaningful only if it comes with enforceable service obligations. Without them, access rights can become largely theoretical. For example, BNSF reaches the New Orleans gateway over trackage rights, but UP dispatches the approach to the HPL Bridge. In 2023, our eastbound trains waited an average of 7.9 hours at Avondale for UP to clear them onto the bridge, and 84% of them waited more than 15 minutes.[86] A neutral dispatcher operating under enforceable protocols and performance thresholds would ensure that every carrier's trains move through the gateway on the same terms, so that competing carriers can remain viable competitors to UP/NS and that customers receive a genuine transportation alternative.

(ii) BNSF's April 2026 Seven-Day Field Study Demonstrates Persistent Congestion on the Back Belt.

BNSF already experiences significant congestion and delays within the New Orleans gateway. BNSF operating data shows that eastbound trains moving between Lafayette, Louisiana (west of New Orleans) and Gentilly (an area in New Orleans) take approximately 24 hours to travel roughly 160 route miles, indicating significant delay within the New Orleans gateway. As noted above, BNSF train event data shows that BNSF eastbound trains dwell an average of 7.9 hours at Avondale, a major point within the gateway, before continuing their journey to other interchange

[86] *See* workpaper WP14_New_Orleans_BNSF_dwell.xlsx, tab VS figures, cell(s) B8-B9.

partners.[87] Long run times, train and terminal dwell, and frequent crew relief have long caused delays to BNSF traversing the gateway.

To better understand these components, in April 2026, BNSF Operations conducted a seven-day study of Back Belt operations, focusing on how NS (which dispatches the Back Belt) and UP (which dispatches the HPL Bridge) use the main-line segments that connect eastern and western railroads for interchange.[88]

The study found that critical portions of the Back Belt were frequently blocked, often in "double-barreled" conditions in which both main tracks were occupied and trains had no available route, even though there was no infrastructure failure. Those conditions were driven largely by dispatching decisions, crew availability, and downstream congestion rather than physical limitations—reflecting operating practices that prioritize the dispatcher's own trains through the most constrained part of the New Orleans gateway.

- ***Crew relief.*** During the study week, {{ [redacted] }} ({{ [redacted] }}) BNSF eastbound trains required relief crews to deliver interchange to NS and CSX, and {{ [redacted] }} ({{ [redacted] }}) BNSF westbound trains required relief crews to pull interchange from NS and CSX.

- ***Crew changes at I-10.*** NS uses I-10 on the Back Belt as a crew-change point for interchange traffic. In only {{ [redacted] }} instances did a crew change take less than {{ [redacted] }} (about {{ [redacted] }} each). In more than {{ [redacted] }} instances, trains sat at I-10 for more than {{ [redacted] }}, and many sat for {{ [redacted] }}, effectively reducing that double-track segment to a single main track for much of each day.

[87] *See id.* at tab VS figures, cell(s) B10.

[88] *See* workpaper WP16_NOLA Backbelt DS Ops Analysis-April 2026; workpaper WP17_Transcript_UP NS 7-Day Data Capture Teams Transcript.

- ***Staging on the main line.*** Interchange trains, or portions of them, were routinely left at Shrewsbury and at 7.6 North Main and 7.6 Freight Lead, again reducing double track to single track. NS also set out BNSF and CN interchange cuts at NE Tower, and UP stacked trains on the HPL Bridge to hold eastbound interchange slots.

Trains were stopped on portions of the Back Belt more than {{ [redacted] }} of the time. That consistent stopping and staging consumes approximately {{ [redacted] }} of the Back Belt's overall capacity. Those practices serve the railroads that control the gateway: UP and NS. As a result, interchange slots were severely limited, and BNSF incurred significant operating inefficiencies every day.

(iii) The Proposed UP/NS Merger Would Increase Both the Concentration of Operational Control and Traffic Levels.

The proposed transaction would significantly increase the merged carrier's control over critical portions of the New Orleans gateway. Currently, UP dispatches movements across the HPL Bridge and interlockings at East Bridge Junction and West Bridge Junction, while NS owns and dispatches the Back Belt corridor. As a result, approval of the transaction would place the primary operating corridors within the gateway under the control of a single railroad, giving the combined UP/NS substantial influence over routes that competing carriers rely upon to reach interchange partners and customers.

The merger would also increase traffic to unsustainable levels on infrastructure that is already congested. UP has calculated post-merger Back Belt capacity at approximately 20.1 trains per day.[89] But BNSF observed approximately

[89] UP-80/NS-78, Supp. p. 180 (STB filed July 27, 2026) (Table PR-2: Most Segments Operate Well Below Capacity Thresholds).

{{ [redacted] }} freight and Amtrak trains routinely utilizing the corridor per day, a conservative count that excludes non-routine movements.[90] Applicants expect the merger to add eight trains per day on the Back Belt.[91] That would yield approximately {{ [redacted] }} trains per day, or about {{ [redacted] }} trains above Applicants' own claimed capacity.

Thus, even under the Applicants' own assumptions, merger-related growth would place significant additional demands on the Back Belt and raise concerns regarding the corridor's ability to accommodate projected traffic levels.

(iv) The Board Should Require Neutral Dispatching and Other Operational Safeguards in the New Orleans Gateway.

If the Board approves the UP/NS merger, the Board should impose conditions that address both physical capacity and operational control. Specifically, BNSF requests that the Board require the installation of an independent neutral dispatcher with authority over the HPL Bridge, West Bridge Junction, East Bridge Junction, the East Bridge Interlocker, the Back Belt, Oliver Junction, connections between the HPL Bridge and the Back Belt, and other shared infrastructure routinely used by multiple carriers. The neutral dispatcher should have exclusive authority over train movements, train prioritization, maintenance coordination, and other operational decisions affecting these facilities.

[90] *See* workpaper WP09_Back_Belt_field_study.xlsx, tab VS figures, cell(s) B5.

[91] Sep. 4, 2026 Am. App. Vol. 2 pp. 767-68, Gehringer/Orr VS.

However, neutral dispatching alone is unlikely to address all the operational issues identified in BNSF's field study, which would be exacerbated by additional volumes from the UP/NS combination. Accordingly, the Board should also require operating rules governing the use of the Back Belt, enhanced reporting on gateway performance, objective performance thresholds that would trigger Board review, and corrective action if gateway conditions deteriorate following the consummation of the merger.

Under this condition, the Board would require that the Back Belt be used primarily for through movements rather than train staging. While NS routinely utilizes the limited Back Belt capacity for interchanges between carriers and other inefficient operations today—except in emergencies—carriers should be prohibited from using the Back Belt for routine crew changes, overflow yard storage, holding interchange traffic awaiting acceptance, or other activities that block crossover access or restrict the efficient movement of traffic through the gateway.

The Board should also require periodic reporting by all Class I railroads, NOPB, and, where applicable, Amtrak, on key gateway performance metrics. These metrics should include transit times, dwell, train volumes across the HPL Bridge and Back Belt, train staging on the Back Belt, route blockages, "double-barreled" operations, freight-related Amtrak delays, interchange performance, and any other measures the Board deems appropriate to assess the efficiency and fluidity of the New Orleans gateway. This reporting would permit the Board to assess whether

gateway operations continue to provide efficient, reliable, and nondiscriminatory service following consummation of the transaction.

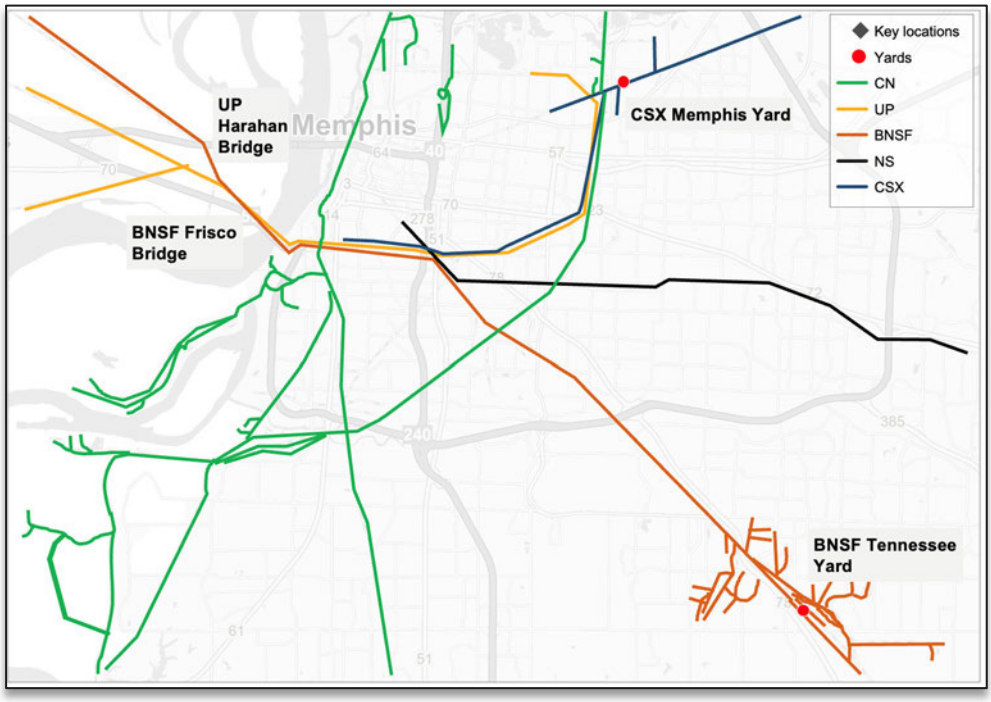
The Board should also establish objective performance thresholds for the New Orleans gateway based on transit times, dwell, congestion levels, route blockages, and interchange performance, measured against pre-merger conditions. Exceeding those thresholds should trigger a Board review and require UP/NS to explain why additional corrective measures are unnecessary. If the Board determines that gateway performance has deteriorated, the Board should impose appropriate remedies, including operating restrictions, independent operational audits, enhanced reporting, or other measures necessary to restore gateway fluidity and performance.

D. The Board Should Ensure that Existing Agreements Cannot Be Used to Prevent Construction or Use of the Proposed BNSF-CSX Connection in Memphis.

Memphis is one of the most important gateways in the national rail network. Effective competition within the gateway depends on access to efficient interchange opportunities. If approved, the UP/NS transaction would increase the merged railroad's ability to internalize traffic on single-line routes, making competitive interchange alternatives even more important for customers. As explained below, BNSF plans to build crossover track from BNSF-owned track to CSX-owned track at CN Junction in downtown Memphis that would preserve a direct and efficient BNSF-CSX interchange, strengthen competitive options for shippers, and help ensure that Memphis remains an open and competitive gateway. If the Board approves the UP/NS transaction, the Board should ensure that no contractual or operational

restriction may be used to prevent BNSF from constructing, operating, or utilizing the proposed connection.

Memphis is one of only four major U.S. rail hubs currently served by five of the six Class I railroads: BNSF, CN, CSX, NS, and UP. Located near the geographic center of the U.S. freight rail system and on the eastern bank of the Mississippi River, Memphis provides connectivity to rail markets throughout the U.S., Mexico, and Canada, and serves as a critical interchange location for eastern and western carriers.



BNSF's traffic reaches the Memphis gateway by traveling through Arkansas to Bridge Junction in West Memphis, Arkansas. Bridge Junction is a critical rail junction where BNSF and UP rail lines converge immediately west of the Mississippi River before entering Memphis. BNSF's traffic primarily crosses the river via its single-track Frisco Bridge, while UP's traffic primarily crosses the river using its adjacent double-track Harahan Bridge. After crossing the Frisco Bridge, BNSF

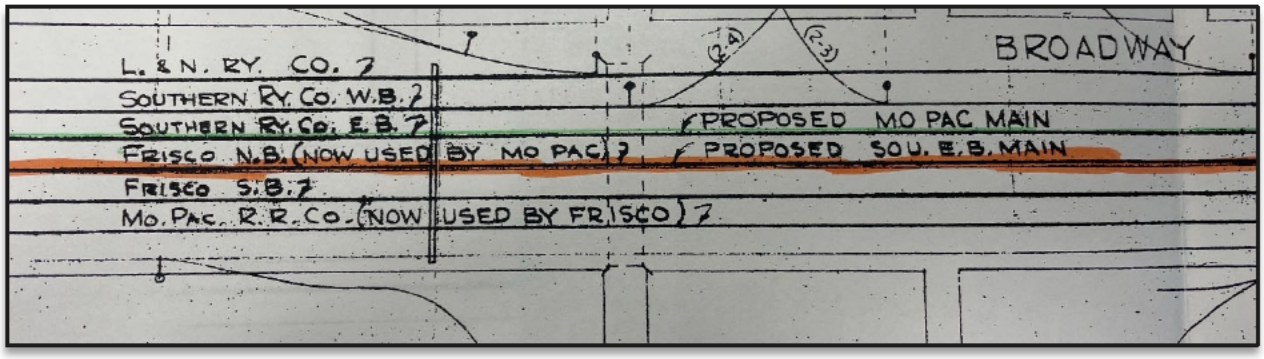
trains proceed through Kentucky Street, a railroad interlocking area in downtown Memphis where the BNSF tracks from the Frisco Bridge and the UP tracks from the Harahan Bridge physically intersect CN's north-south main line tracks.

Immediately east of this intersection of BNSF, UP, and CN track lies the Broadway Street Corridor ("Broadway Corridor"), a six-track-wide rail corridor through downtown Memphis. Within the Broadway Corridor, BNSF, UP, CSX, and NS trains operate side-by-side through downtown Memphis to KC Junction—a critical routing and distribution point where traffic is directed to each railroad's respective yards, interchange facilities, and outbound routes throughout the region and the broader national rail network. In 1965, the predecessors of BNSF and UP entered into an agreement designed to improve operations and reduce conflicting movements within the Broadway Corridor.[92] As part of that arrangement, the parties implemented a series of track changes, relocated crossovers, and exchanged trackage rights between Kentucky Street and KC Junction.[93] Although each railroad retained ownership of its respective track, the agreement granted reciprocal operating rights that allowed each carrier to operate over portions of the other's line, thereby creating a more efficient operating configuration through the corridor. As shown below and as relevant here, the current structure of the parallel tracks from south to north are as follows: Track 1 (owned and operated by BNSF); Track 2 (owned by UP, operated

[92] Ex. 7, 1965 Broadway Corridor Trackage Rights Agreement (Dec. 17, 1965) (supplementing Oct. 19, 1903 joint track agreement, Frisco Secretary's No. 1775).

[93] Ex. 8, ICC Approval of 1965 Broadway Corridor Trackage Rights Exchange, FD No. 23834 *et al.* (served Jan. 5, 1966).

by BNSF); Track 3 (owned by BNSF, operated by UP); and Track 4 (owned and operated by CSX).



BNSF traffic destined for interchange with CSX currently must first travel east to BNSF's Tennessee Yard for reclassification and sorting before being routed north for delivery over CN track that connects with CSX's Leewood Yard. By contrast, UP can interchange traffic directly with CSX at CN Junction, where UP's main line diverges into multiple routes, including a direct connection to CSX's Leewood Yard. The current BNSF-CSX interchange route is subject to operational constraints, including segments where train speeds are restricted to {{ [redacted] }}. Accordingly, the current physical configuration of the Memphis gateway will limit BNSF's ability to compete as efficiently as UP for traffic moving through the gateway if the UP/NS merger is approved.

As the combined UP/NS railroad increasingly internalizes east-west traffic on single-line routes, BNSF will become increasingly dependent on CSX to provide competitive access to eastern markets through Memphis. To preserve that competition, BNSF will construct the CN Junction Crossover Project, connecting

BNSF-owned Track 3 to CSX-operated Track 4, creating a direct BNSF-CSX interchange at CN Junction.

On April 23, 2026, BNSF notified UP of its intent to construct the CN Junction Crossover Project. Because UP conducts trackage rights operations over the affected track (Track 3), BNSF provided the notice as a courtesy. The notice requested that UP raise any questions or concerns within 21 days (by May 14, 2026), and stated that, absent a response, BNSF intended to proceed with the project and would separately provide engineering drawings and coordinate construction windows. To date, UP has not formally responded to BNSF's notice, although it has informally advised BNSF that it is reviewing the request.

BNSF has the right to construct a crossover track connecting its existing infrastructure to the adjacent CSX track. However, because UP did not formally respond to BNSF's April 23, 2026 notice, BNSF is concerned that UP may later seek to invoke provisions of existing agreements governing operations in the Broadway Corridor to improperly challenge or restrict BNSF's ability to construct, operate, or utilize the proposed connection.[94] If successful, UP's efforts would limit the effectiveness of a direct BNSF-CSX connection and impair BNSF's ability to compete for traffic moving through the Memphis gateway.

Therefore, if the Board approves the UP/NS merger, the Board should ensure that no property right, contractual provision, operating restriction, or similar

[94] Ex. 9, 2009 BNSF-UP Kentucky Street–KC Junction Trackage Rights Agreement (Dec. 16, 2009) (granting UP limited trackage rights over BNSF track and referencing 1965 agreement).

agreement may be used to prevent BNSF from constructing, operating, or utilizing the proposed connecting track. Such relief would preserve BNSF's ability to establish a more direct and efficient interchange with CSX in Memphis, improve fluidity within the Memphis gateway, and maintain a meaningful competitive alternative in Memphis to the combined UP/NS railroad's single-line service offerings there. In doing so, the Board would take one step to help preserve competitive rail service options for shippers and maintain effective interline competition within Memphis.[95]

VI. Conclusion.

The national network is running well. Interline partnerships are working. Capital investments into the network have improved capacity, fluidity, and network performance. This proposed merger would put that progress and promise at risk. Concentrating more traffic, more decision-making, and more shared infrastructure in one carrier—in a manner that has never been tested or managed—would create operational risks that shippers would bear. This merger would make the network less resilient and less flexible; it would increase the risk of network-wide service failures; it would make it harder for the industry to dig out of service challenges; and painful integration problems are a virtual certainty. Those are unnecessary risks, particularly where the premise behind this merger—that interline service is inferior to single-line service—is not true. Instead, investment and cooperation are the superior alternative to a risky and untested restructuring of the industry.

[95] My colleague, Tom Williams, discusses the conditions above and others—including conditions pertaining to open access and TTX governance—in his verified statement.

VERIFICATION

I, Craig Morehouse, declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief. Further, I certify that I am qualified and authorized to make this statement.

Executed this 18th day of November, 2026.

/s/ Craig Morehouse
Craig Morehouse
Chief Operations Officer
BNSF Railway Company

EXHIBIT 1

PUBLIC VERSION - REDACTED

BNSF RAILWAY
WEEKLY INTERMODAL AND CARLOAD UNITS REPORT WEEK 39

WEEK ENDING OCTOBER 03, 2026
WEEK ENDING OCTOBER 04, 2025

	2026			2025			% INCREASE/(DECREASE)		
	WEEK 39	3rd QTR TO DATE	YEAR TO DATE	WEEK 39	3rd QTR TO DATE	YEAR TO DATE	WEEK 39	3rd QTR TO DATE	YEAR TO DATE
CONTAINERS	114,364	1,442,104	4,132,027	107,962	1,373,691	3,914,815	5.93 %	4.98 %	5.55 %
TRAILERS	4,852	52,567	149,471	3,463	45,789	137,619	40.11 %	14.80 %	8.61 %
TOTAL INTERMODAL	119,216	1,494,671	4,281,498	111,425	1,419,480	4,052,434	6.99 %	5.30 %	5.65 %
COAL	21,515	291,258	852,801	23,560	318,755	910,123	(8.68)%	(8.63)%	(6.30)%
GRAIN	12,293	160,245	503,611	11,514	151,917	440,438	6.77 %	5.48 %	14.34 %
CHEMICALS	8,720	109,381	338,835	8,817	110,932	350,080	(1.10)%	(1.40)%	(3.21)%
MOTOR VEHICLES	6,024	75,000	227,374	6,138	75,389	227,173	(1.86)%	(0.52)%	0.09 %
FOOD	3,137	42,435	133,487	3,881	42,616	127,646	(19.17)%	(0.42)%	4.58 %
METALLIC ORES	2,326	27,565	73,416	1,820	24,722	67,366	27.80 %	11.50 %	8.98 %
METALS	2,377	28,774	79,184	1,797	24,039	72,824	32.28 %	19.70 %	8.73 %
SAND/GRAVEL	4,652	59,562	163,003	4,161	54,741	149,320	11.80 %	8.81 %	9.16 %
STONE/CLAY/GLASS	2,658	36,972	99,060	2,740	35,475	95,765	(2.99)%	4.22 %	3.44 %
PULP/PAPER	1,085	14,781	42,668	1,048	14,492	44,068	3.53 %	1.99 %	(3.18)%
PETROLEUM	7,542	91,212	261,241	6,750	83,324	236,509	11.73 %	9.47 %	10.46 %
LUMBER/WOOD	1,419	18,878	57,782	1,221	17,112	55,006	16.22 %	10.32 %	5.05 %
GRAIN MILL	4,364	61,099	183,190	4,433	53,851	170,113	(1.56)%	13.46 %	7.69 %
IRON & STEEL SCRAP	1,201	16,203	49,218	1,217	13,819	41,058	(1.31)%	17.25 %	19.87 %
WASTE/SCRAP	549	7,247	20,607	534	7,337	20,428	2.81 %	(1.23)%	0.88 %
FOREST PRODUCTS	28	556	1,544	45	562	1,937	(37.78)%	(1.07)%	(20.29)%
NON-METALIC MINERALS	467	6,373	18,249	440	5,554	17,444	6.14 %	14.75 %	4.61 %
COKE	464	6,842	19,544	534	6,401	18,238	(13.11)%	6.89 %	7.16 %
FARM (NO GRAIN)	727	7,758	21,418	455	5,991	18,915	59.78 %	29.49 %	13.23 %
OTHER	1,933	29,513	90,023	2,629	31,594	97,997	(26.47)%	(6.59)%	(8.14)%
TOTAL CARLOADS	83,481	1,091,654	3,236,255	83,734	1,078,623	3,162,448	(0.30)%	1.21 %	2.33 %
INTERMODAL & CARLOAD	202,697	2,586,325	7,517,753	195,159	2,498,103	7,214,882	3.86 %	3.53 %	4.20 %

EXHIBIT 2

PUBLIC VERSION - REDACTED

Faster Coast-to-Coast Solutions: BNSF and CSX Launch New Intermodal Schedules to Ohio Valley and Northeast

DATE
NOV 14, 2025

BNSF, in collaboration with CSX, is excited to announce several new, faster intermodal schedules that continue to offer customers seamless, efficient, coast-to-coast solutions to ship between the western and eastern U.S.

As of this coming Monday, November 17, BNSF will offer new, faster five-day-a-week schedules from Los Angeles to many CSX destinations, as well as new service lanes, including:

Schedules for BNSF Los Angeles (Hobart) to CSX Destinations Effective November 17			
Origin	**Destination**	**Transit**	**Transit Improvement**

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Los Angeles	Northwest Ohio	89 hours	New Expedited Service
Los Angeles	Chambersburg	123 hours	28 hours
Los Angeles	Columbus	115 hours	28 hours
Los Angeles	Louisville	109 hours	New Service
Los Angeles	Northwest Ohio ICTF	105 hours	22 hours
Los Angeles	Philadelphia	158 hours	New Service
Los Angeles	South Kearny	126 hours	32 hours
Los Angeles	Springfield	136 hours	52 hours
Los Angeles	Syracuse	140 hours	26 hours



These new schedules offer even more immediate value for our customers today by increasing speed, flexibility and optionality while delivering integrated service for freight moving across the U.S. You can view these schedules, along with all other BNSF intermodal schedules, on our

Customer Portal (https://customer2.bnsf.com/s/home) (login access required).

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For further details, please reach out to your **BNSF marketing representative (https://www.bnsf.com/ship-with-bnsf/intermodal/contact-us.html)**.

As always, we thank you for your business and appreciate the opportunity to serve as your transportation service provider.

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EXHIBIT 3

PUBLIC VERSION - REDACTED

BNSF, NS, NWSA redesign faster service from PNW to Chicago and beyond

DATE

APR 2, 2025



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(https://twitter.com/home?status=https://www.bnsf.com/news-media/news-releases/newsrelease.page?relId=bnsf-ns-nwsa-redesign-faster-service-from-pnw-to-chicago-and-

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beyond)

(mailto:?subject=BNSF, NS, NWSA redesign faster service from PNW to Chicago and beyond&body=https://www.bnsf.com/news-media/news-releases/newsrelease.page?relId=bnsf-ns-nwsa-redesign-faster-service-from-pnw-to-chicago-and-beyond)

FORT WORTH, Texas, ATLANTA, Ga., & TACOMA, Wash., – BNSF Railway and connecting partners Norfolk Southern (NS) and the Northwest Seaport Alliance (NWSA) announced today a collaboration to redesign and develop a 3-day faster service product for inland point intermodal (IPI) traffic from the Pacific Northwest (PNW), destined to and connecting through Chicago.

The redesigned plan will encompass the NWSA building trains in less than 2 days dwell off the dock with the density to seamlessly connect to and through Chicago. The seamless hand-off across BNSF's Northern Transcon route enables faster transit and better consistency for cargo shippers.

"This service product collaboration was an outcome of listening to our joint customers, who emphasized the desire to use more rail, but would need to also reduce inventory carrying and total landed transportation costs out of their networks in 2025," said BNSF Group Vice President, Consumer Products Jon Gabriel. "We are proud to deliver a solution that accomplishes these goals."

The NWSA Seattle/Tacoma port complex reported the lowest rail dwell in the country thus far this year as a result of operational changes emphasizing rail loading.

"The Northwest Seaport Alliance is excited to partner with BNSF and NS to offer this industry-leading service for shippers utilizing our gateway," stated NWSA CEO John Wolfe. "This is an example of how through partnership and innovative efforts we can respond to the needs of shippers and deliver best-in-class service for our customers."

With reduced on dock dwell and faster transit, results will be 3 days faster, with the total time from ship to Chicago at 6 days, **the fastest from any PNW gateway in North America.**

NS and BNSF will deliver all interchange traffic to one location (NS-Ashland), for a single crew swap, then move toward inland markets in Ohio, Pennsylvania and more.

"At Norfolk Southern, we're focused on delivering smart, customer-centric solutions—and this enhanced service from the Pacific Northwest to the Midwest is exactly that," said Shawn Tureman, Vice President Intermodal Automotive Commercial. "By collaborating with BNSF and the Northwest Seaport Alliance, we're offering a faster, more reliable rail option that helps shippers reduce transit time, cut costs, and streamline supply chains heading into 2025 and beyond.

This new and improved service will launch effectively immediately. For more information about how we can support your freight needs, please reach out to your BNSF (https://www.bnsf.com/ship-with-bnsf/intermodal/contact-us.html) or NS Commercial representative (https://www.norfolksouthern.com/en/ship-by-rail/industry/intermodal?gad_source=1&gclid=EAIaIQobChMIm62r87mljAMVDyRECB266juCEAAYASAAEgLEffD_BwE).

Contact:
Kendall Kirkham Sloan
Director, External Communications
Media@BNSF.com (mailto:Media@BNSF.com)

(/)

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EXHIBIT 4

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S&P Journal of Commerce

NS chassis shortage disrupts freight deliveries in Pennsylvania



Norfolk Southern is the predominant intermodal provider in central Pennsylvania with terminals in Allentown, Harrisburg, Philadelphia and Scranton. Photo credit: Khairil Azhar Junos / Shutterstock.com.

Ari Ashe, Senior Editor, Intermodal Rail | Sep 3, 2026, 2:27 PM EDT

Intermodal shippers sending freight into parts of central and eastern Pennsylvania are facing delivery delays and potentially higher short-term transportation costs because Norfolk Southern Railway (NS) is running short of available 53-foot chassis at multiple terminals in those parts of the state.

The railroad has restricted the number of containers it will accept at Harrisburg and nearby Rutherford from several origins to prevent those terminals from becoming gridlocked, market sources say and Norfolk Southern confirmed.

Domestic intermodal containers transferred to NS from other railroads are not subject to the restrictions, although the boxes may still encounter chassis-related delays after arriving in Pennsylvania.

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NS, acknowledging the disruption, said it is repositioning chassis from other markets and altering ingate flows to better manage moves at the affected terminals.

"We have already implemented several actions to restore normal fluidity in the Harrisburg market, including deploying additional mobile mechanics to high-demand areas, strategically repositioning chassis from other locations, and adjusting ingate flows to optimize equipment availability and maintain efficient terminal operations," an NS spokesperson said in a statement to the *Journal of Commerce*.

The railroad said it was "confident in the actions under way" and that it would work with customers to "communicate proactively, minimize impacts, and support reliable service across the network."

The restrictions have begun to reduce the chassis deficit, sources said, but the shortage remains substantial. Sources said chassis are being moved into Harrisburg by rail and truck, while repairs of out-of-service equipment are being accelerated, and short-term equipment leases are being evaluated.

NS is also urging shippers not to divert Harrisburg-bound freight through terminals serving Allentown, Scranton or northern New Jersey because chassis supplies in those markets are already lean and being repositioned to Harrisburg.

The backlog at Harrisburg could involve hundreds of containers, according to multiple intermodal marketing companies (IMCs) who asked not to be identified. The exact number could not be independently determined.

Some containers have been waiting for chassis for more than a week, causing missed or delayed cargo deliveries, multiple sources said. Other containers remain at origin because the restrictions are preventing them from being accepted for shipment, or because the boxes may reach Harrisburg but remain on railcars or elsewhere within the terminal complex and are thus unavailable for pickup, the sources said.

Sources said Norfolk Southern has agreed to waive demurrage fees on at least some containers that could not be retrieved because chassis were unavailable. It was unclear whether the railroad is providing storage relief automatically or evaluating charges on a case-by-case basis.

The disruption, meanwhile, is expected to extend into next week. The Labor Day holiday could slow the recovery because fewer drivers are typically available to retrieve containers compared with a normal Monday.

The equipment shortage is not limited to Harrisburg. At Morrisville, outside Philadelphia, containers are also stacked without chassis available to retrieve and deliver the cargo, according to sources at multiple IMCs.

Shippers have few alternatives

While rival CSX Transportation provides an alternative in Philadelphia, NS is largely the only practical rail option for cargo moving through central Pennsylvania. CSX's nearest terminal is in Chambersburg, approximately 55 miles southwest of Harrisburg, so diverting freight there would require a substantially longer and more expensive dray to receivers in the Harrisburg area.

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Chicago is among the most exposed to restrictions in Pennsylvania. approximately 10,000 to 15,000 domestic containers per month move from Chicago to NS Harrisburg or CSX Chambersburg, according to a *Journal of Commerce* estimate based on data that railroads file annually with the US Surface Transportation Board.

Another option is to move time-sensitive freight by truckload on the spot market. Quotes for Chicago-to-Harrisburg truckload service ranged between $2,500 and $3,000 per load last month, according to a *Journal of Commerce* analysis of rates from DAT Freight & Analytics, freight brokers Loadsmart and Sunset Transportation, and data from shippers and third-party logistics providers.

By comparison, the door-to-door intermodal contract rate on the lane averaged between $1,700 and $2,000 per load last month, including fuel and local drayage in Chicago and Harrisburg, according to the *Journal of Commerce* Intermodal Savings Index.

Contact Ari Ashe at ari.ashe@spglobal.com.

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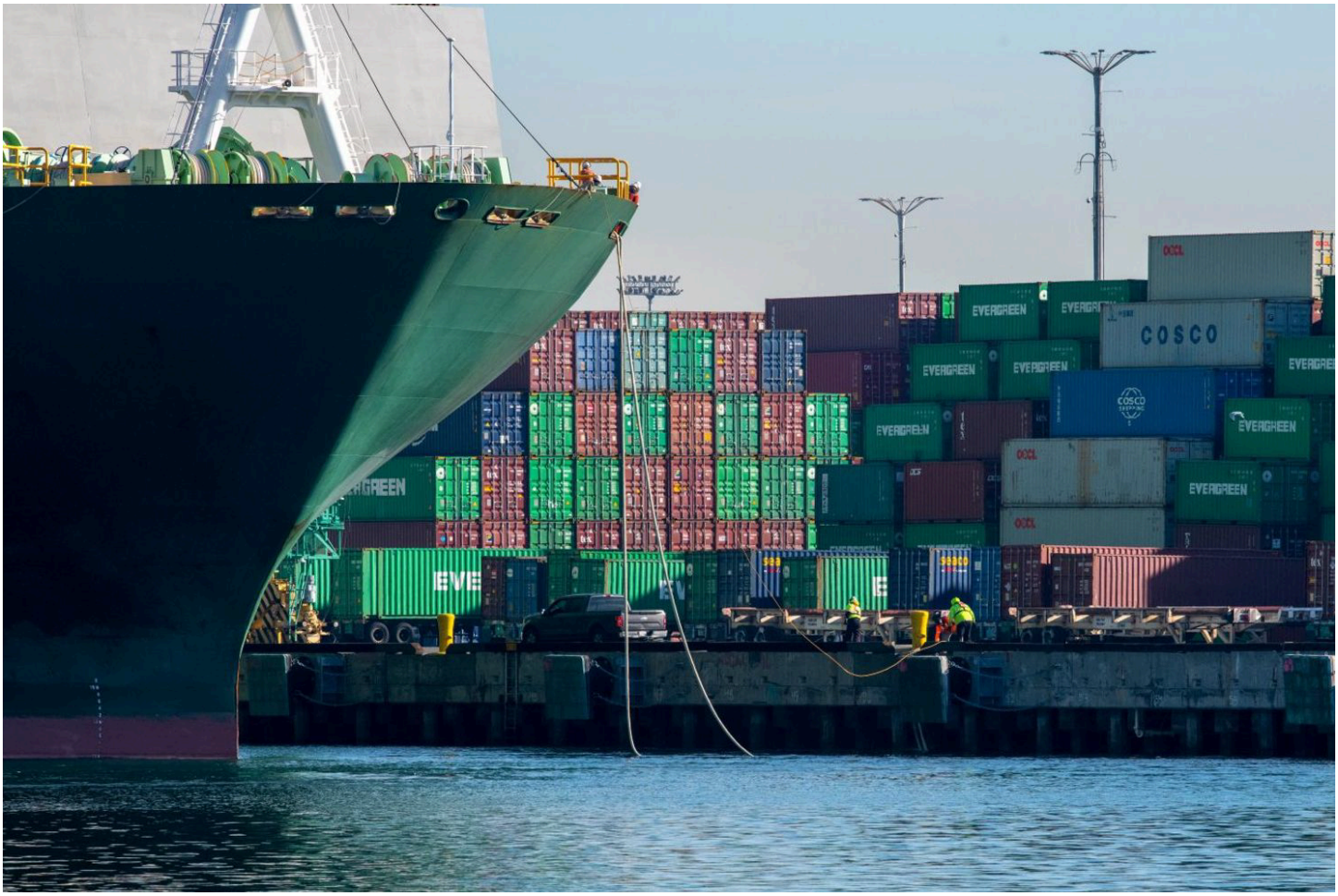

BNSF-OP-P VOL. 2 PAGE 341

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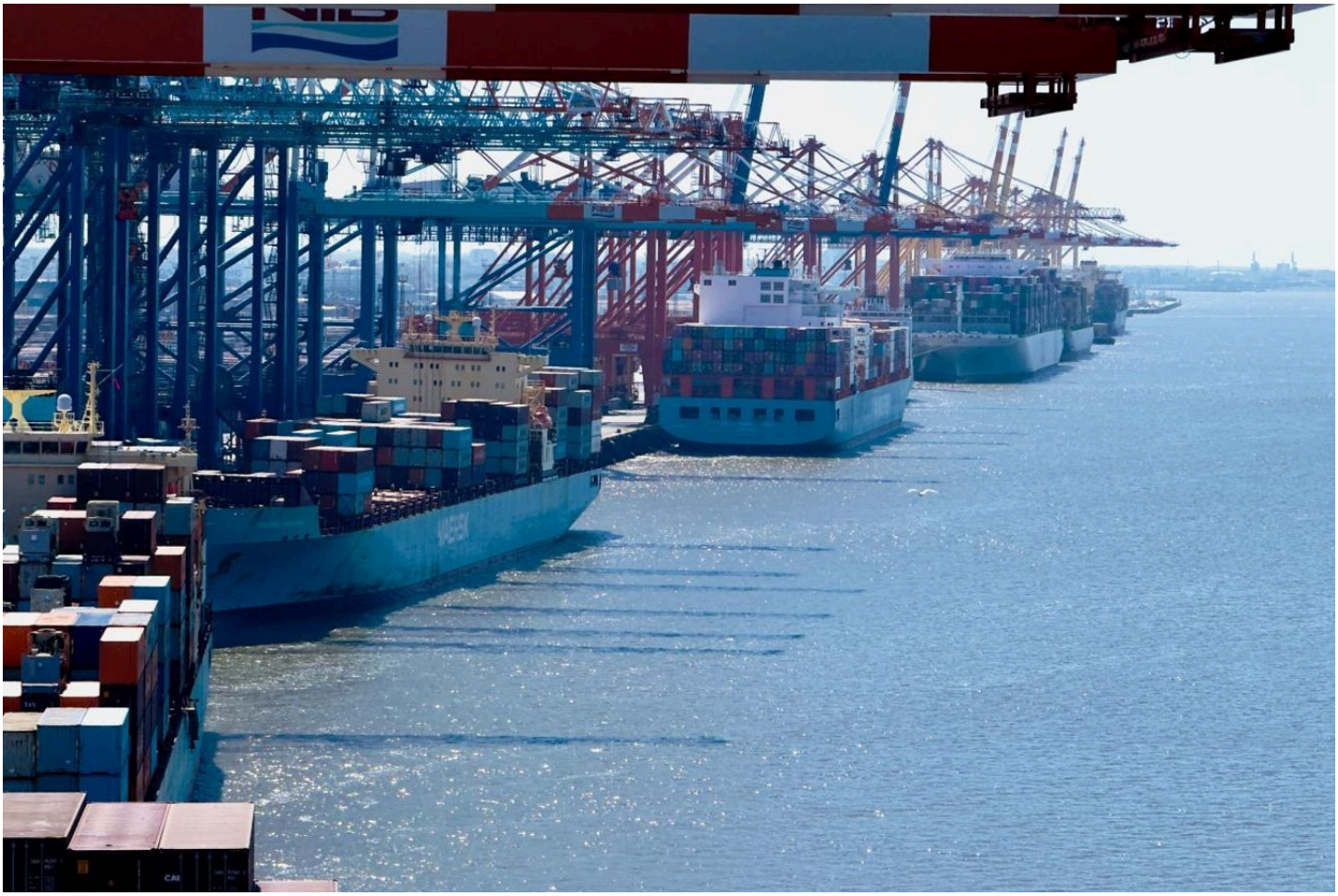
PMA, ILWU Local 26 extend contract to Nov. 20 as talks continue

The fresh extension came after the two sides negotiated late into Friday night ahead of the latest deadline of midnight PT.



Container delays generate revenue for different parties at each stop: analyst

Freight delays unwind on different clocks, and the gaps between those clocks decide who profits, writes Paul Tonsager.



BNSF-OP-P VOL. 2 PAGE 342

PUBLIC VERSION - REDACTED



Outsized military cargoes force welcome European infrastructure improvements

The creation of recognized heavy transport “corridors” across the bloc and streamlined permitting procedures are both expected to occur amid the increase in the size of the cargoes.

FALL SALE: Use code FFTW25 to save 25% on first year of a Silver or Silver Plus annual subscription!

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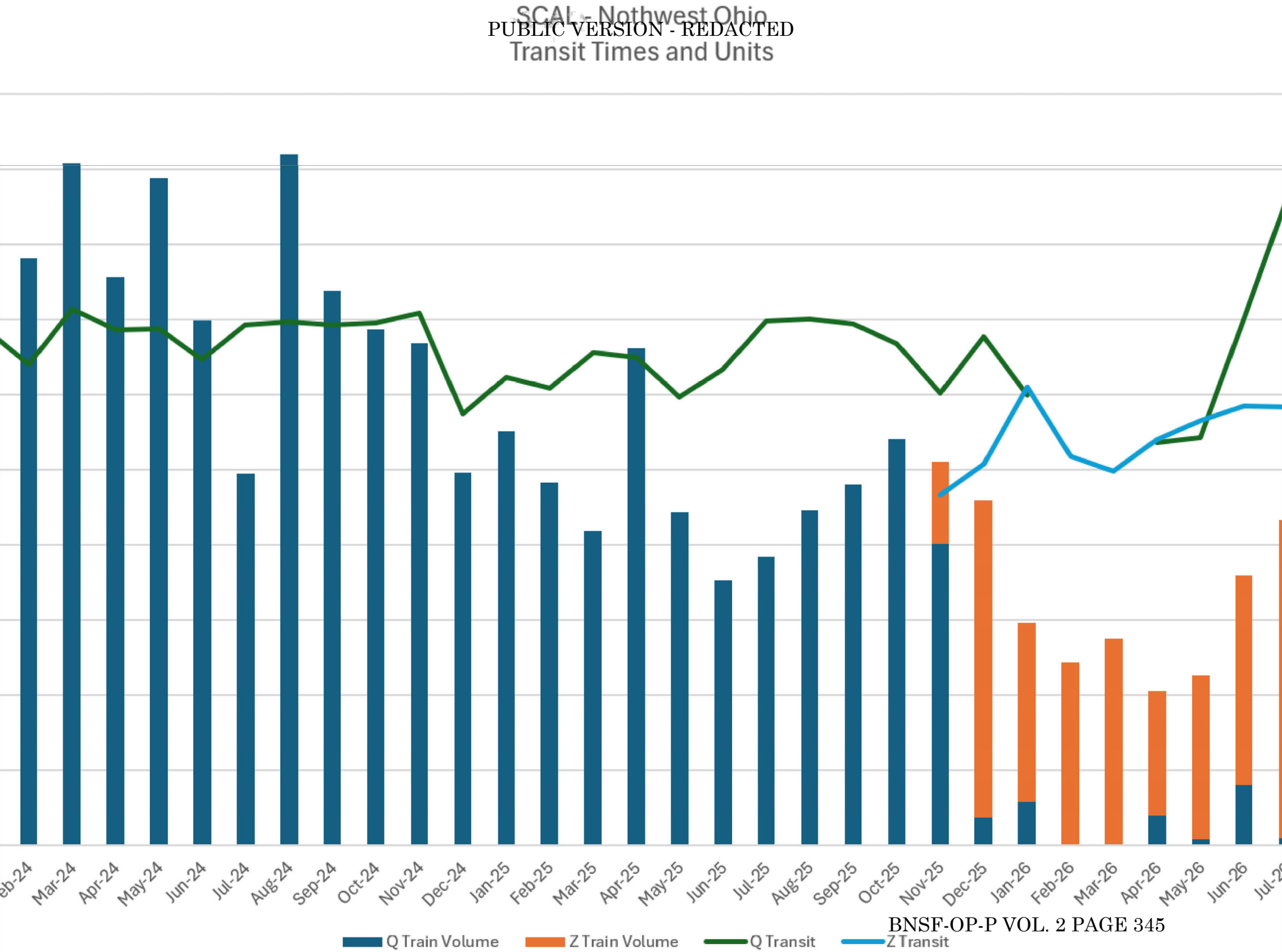
EXHIBIT 5


SCAL - Nothwest Ohio
Transit Times and Units
Mar-24
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Q Train Volume
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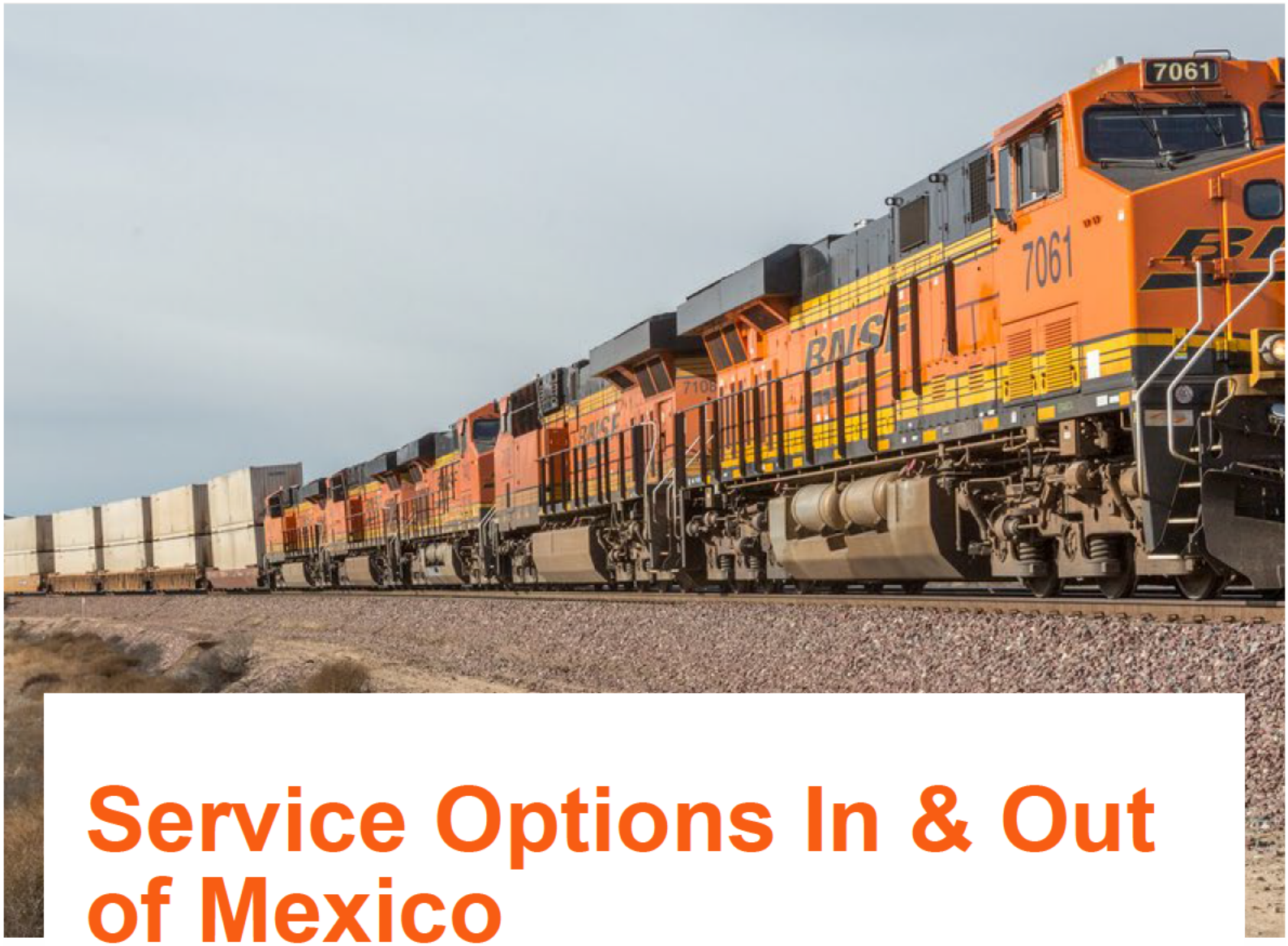
EXHIBIT 6



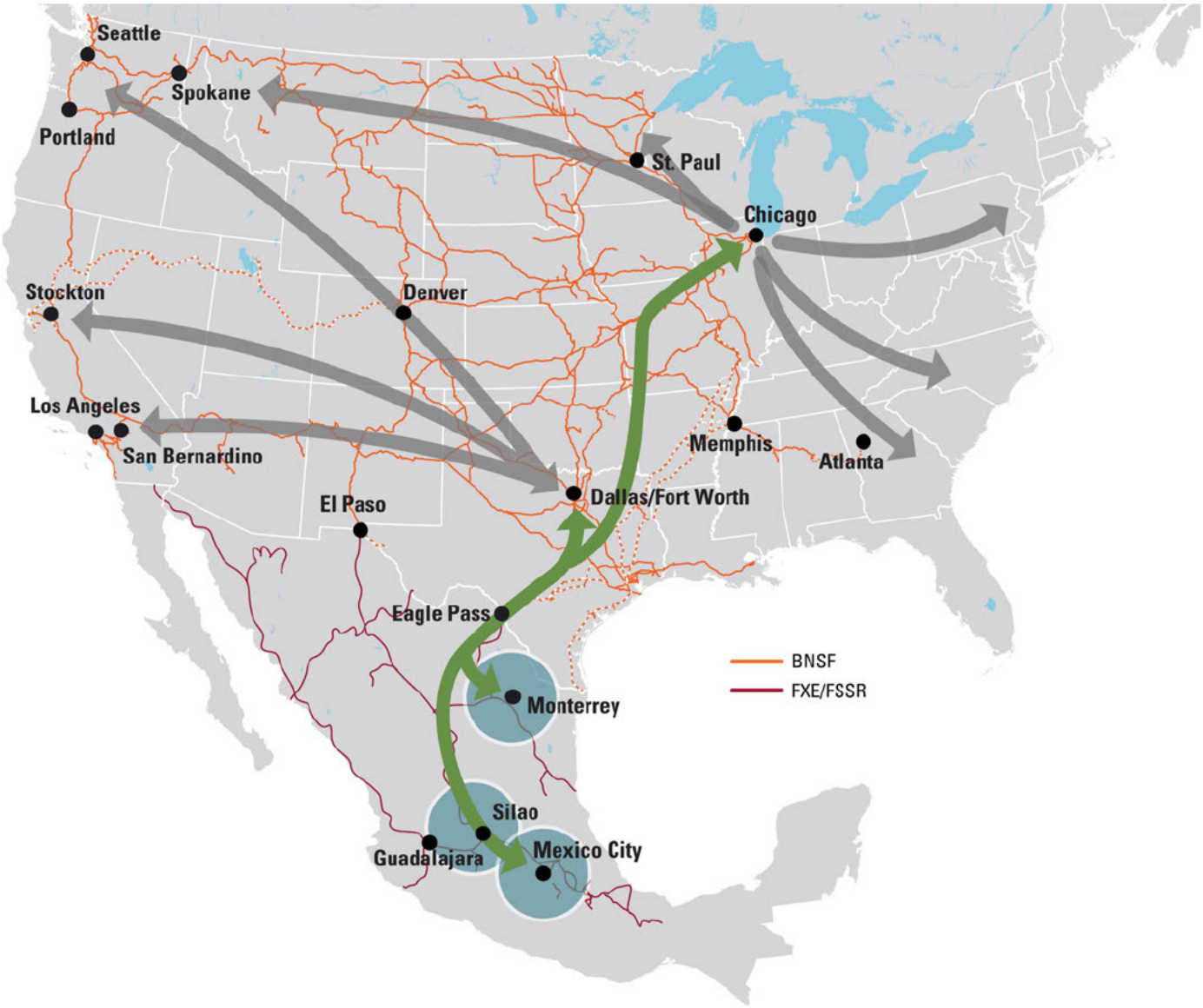
Service Options In & Out of Mexico

Whether you're shipping raw materials or grains by the carload or finished products or vehicles by the container- or truckload, BNSF Mexico has a shipping solution for you. BNSF Mexico offers our customers a spectrum of carload, agricultural, intermodal and automotive rail shipping solutions to move freight into and out of Mexico. And even if your facility is not rail-served, you'll still be well served by BNSF Mexico, through our effective transload solutions.

BNSF/FXE Intermodal Solutions

BNSF, in joint service with Ferromex (FXE), offers intermodal service between the Monterrey, Silao-Bajio and Pantaco-Mexico City regions, key markets in Northern and Central Mexico, through the Eagle Pass, Texas border gateway.

This service is one day faster than the existing service from Monterrey to Chicago. It offers customers a reliable and more sustainable transportation option to move goods seamlessly across the border to and from Mexico with coast-to-coast access in the U.S.



Service Advantages:

- **Market Reach:** Unparalleled coast-to-coast market access
- **Dedicated Support:** Dedicated BNSF customer support team to track shipments from in-gate to out-gate to and from Mexico and the U.S. 24/7
- **Ease:** Southbound shipments are moved in-bond (which means shipment documentation is handled at the final destination) to minimize Mexico Customs clearance delays. Once the shipments arrive at the destination ramp, customers can clear their cargo with the customs broker of their choice through Mexico Customs. Northbound shipments are pre-cleared with U.S. Customs by a customs broker of the customer's choice.

BNSF Intermodal Rules and Policies Guide
General rules and policies for BNSF Intermodal.

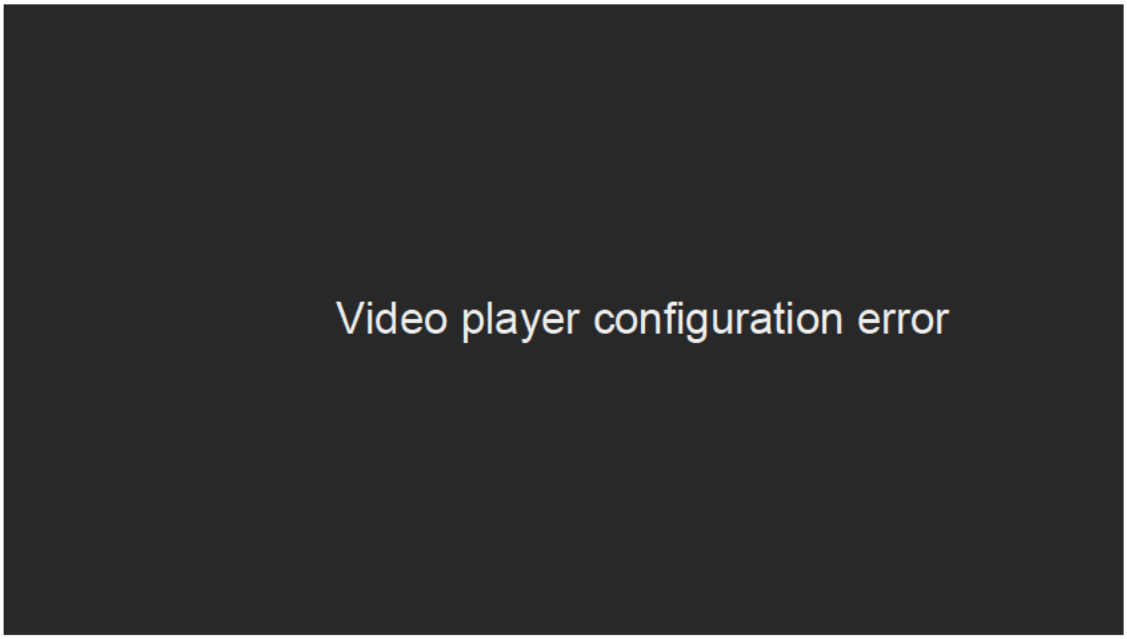
Automotive Solutions

BNSF is a leader in shipping automobiles and automotive parts, with an established reputation for service, security and cost-effective service. BNSF Mexico is a major resource for auto shipping from Mexico. We continue to strive to enhance our ability to serve the automotive industry.

Carload Solutions

BNSF Mexico offers carload solutions that are consistent, reliable and cost-effective. We utilize the industry's most modern fleet of carload equipment to meet your capacity needs and connect you with BNSF's vast North American network. We are experts at the cross-border shipping of a range of commodities, including building materials, plastics, chemicals, minerals, machinery, metals, food, beverages and petroleum products. And we give our shippers access to a range of online tools that make the

entire shipping process easier and fully visible. Online resources include Loading Diagrams and Equipment Guide.



Transload Solutions

You can still access the BNSF carload network even if your Mexico facility doesn't have direct rail access. BNSF Mexico works closely with premium transload partners and Mexican rail carriers to help you access the BNSF network at the most advantageous point for you. Find out about BNSF U.S. transload information.

Agricultural Solutions

BNSF Mexico is a major transporter of grain, connecting key grain-producing areas in the U.S. Pacific Northwest, Midwest and Great Plains regions to major consumption markets in Mexico.

We are experts in meeting the needs of whole grain, grain products and bulk foods shippers. We have partnerships in place with Ferromex and KCSM that benefit shippers and receivers of grain in and out of Mexico.

BNSF Mexico can also handle smaller shipments to non-shuttle-train-capable facilities by arrangement. For rate information, see Rate Book BNSF – 4022-L and Agricultural Products Rates and Prices.

U.S. Shuttle Facilities

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EXHIBIT 7

(REDACTED)

EXHIBIT 8

800-763

ORDER SERVICE DATE JANUARY 5, 1966

At a Session of the INTERSTATE COMMERCE COMMISSION, Finance Board No. 3, held at its office in Washington, D. C., on the 29th day of December, A. D. 1965.

Finance Docket No. 23834

UNION RAILWAY CO.--TRACKAGE RIGHTS AT MEMPHIS, TENN.--
ST. LOUIS-SAN FRANCISCO RAILWAY CO.

Finance Docket No. 23835

MISSOURI PACIFIC RAILROAD CO.--TRACKAGE RIGHTS
AT MEMPHIS, TENN.--ST. LOUIS-SAN FRANCISCO RAILWAY CO.

Finance Docket No. 23836

ST. LOUIS-SAN FRANCISCO RAILWAY CO.--TRACKAGE RIGHTS
AT MEMPHIS, TENN.--UNION RAILWAY CO.

Upon consideration of the joint application filed October 11, 1965, in the above-numbered proceedings by the Union Railway Co., Missouri Pacific Railroad Co., and St. Louis-San Francisco Railway Co., all carriers by railroad subject to part I of the Interstate Commerce Act, for authority under section 5(2) of the act to acquire joint trackage rights in Memphis, Tenn., as follows: (1) the Union Railway Co. and the Missouri Pacific Railroad Co., to operate over the present northbound main track of the St. Louis-San Francisco Railway Co., jointly with that railroad between Chaining Station 25538 + 29.5 and Chaining Station 25656 + 03, a distance of 2.23 miles; and (2) the St. Louis-San Francisco Railway Co., to operate over the tracks of Union Railway Co. jointly with that railroad and the Missouri Pacific Railroad Co., between Chaining Station 5 + 46 and Chaining Station 118 + 48.5, a distance of 2.14 miles; and of the protest to the joint application filed by the Railway Labor Executives' Association on the grounds that the proposed trackage right acquisitions, if approved, could have an adverse effect on the employees of the carriers involved; and

It appearing, That the interests of the carrier employees affected by the grant of trackage rights will be adequately protected by the imposition of appropriate conditions; that the proposed transactions will eliminate certain track cross-overs and will facilitate the movement of rail traffic in the Memphis, Tenn., area, thus improving the rail transportation service, including car utilization of each of the applicants, and will relieve motor traffic congestion caused by waiting trains at road intersections; that there is at present in effect among the applicants an agreement originally entered into on October 19, 1903, as modified on June 3, 1925, among the predecessors of the respective applicants, covering operations over certain trackage at Memphis, Tenn., which agreement applicants herein propose to further amend pursuant to a supplemental agreement executed by the parties on December 17, 1965;

2800-763

F. D. No. 23834, et al.

It further appearing, That the supplemental agreement of December 17, 1965, makes no provision for the user to pay rental to the owning company for the use of the trackage involved, but provides that subject to approval by the owning company, user shall have the right to require the owning company to provide, without cost to owner, additions and betterments to the latter's facilities as set out in paragraphs 6(a) and 7(a) of said agreement, including such signals as desired; that should salvage result from such additions and betterments, such salvage would become the property of the user and the additions and betterments would become the property of the owning company;

It further appearing, and the Board so finds, that a hearing on the trackage rights transactions is not necessary in the public interest, that the terms of the amendment to the existing agreement are for the mutual benefit of the parties and are just and reasonable and that the said transactions are within the scope of section 5(2) of the act and will not result in the guarantee or assumption of any obligations or in any fixed charges and will not be contrary to the public interest; that no other railroad has requested to be included in the trackage rights applications; that transportation services to the public will be improved and consummation of the proposed transactions would be consistent with the public interest:

It is ordered, That subject to the same conditions for the protection of railway employees as were imposed in Oklahoma Ry. Co. Trustees Abandonment, 257 I.C.C. 177, the acquisition by the Union Railway Co. and the Missouri Pacific Railroad Co., of trackage rights over the line of railroad of the St. Louis-San Francisco Railway Co., herein above described, and the acquisition by the St. Louis-San Francisco Railway Co., of trackage rights over the lines of railroad of the Union Railway Co., herein above described, upon the terms and conditions set forth in the application and in the trackage rights agreement, as amended, be, and they are hereby, approved and authorized;

It is further ordered, That this order shall take effect and be in force as of December 29, 1965;

It is further ordered, That no change or modification in the terms and conditions of the trackage rights agreement herein authorized shall be effected, and no additional parties may exercise such trackage rights, without prior approval of this Commission; and

It is further ordered, That unless the authority granted herein is exercised within one year from the effective date hereof, it shall be of no further force or effect; and that the applicants shall confirm in writing to this Commission, immediately after commencement of operations herein authorized, the date such operations were commenced.

By the Commission, Finance Board No. 3.

H. NEIL GARSON
Secretary.

EXHIBIT 9

TRACKAGE RIGHTS AGREEMENT
BETWEEN KENTUCKY STREET AND KC JUNCTION
IN MEMPHIS, TENNESSEE

THIS AGREEMENT, made and entered into this 16th day of December, 2009 (the "Execution Date"), by and between **BNSF RAILWAY COMPANY**, a Delaware corporation (hereinafter referred to as "BNSF" or "Owner"), and **UNION PACIFIC RAILROAD COMPANY**, a Delaware corporation (hereinafter referred to as "UP" or "User").

W I T N E S S E T H:

WHEREAS, BNSF is the owner and operator of certain railroad lines between MP 483.8 and MP 486.0 on the BNSF Thayer Subdivision at Memphis, TN, which shall be referred to herein as the "Joint Trackage", and as depicted on Exhibit A attached hereto;

WHEREAS, UP desires to obtain trackage rights upon certain railroad lines of BNSF for the sole purpose of interchanging with Canadian National Railway ("CN") at CN's Johnson Yard; and

WHEREAS, BNSF is willing to grant UP trackage rights upon BNSF railroad lines subject to the terms and conditions set forth herein.

NOW, THEREFORE, it is mutually agreed by and between the parties.

Section 1. General Conditions; Conflicts Between Provisions:

The General Conditions set forth in Exhibit B attached hereto are hereby made a part of this Agreement. Each capitalized term used and not otherwise defined in this Agreement shall have the meaning ascribed to it in the General Conditions. If any conflict between the General Conditions and this Agreement shall arise, the provisions of this Agreement shall prevail.

All amendments, supplements, modifications to and waivers of the terms of this Agreement shall be in writing and signed by the parties hereto.

Section 2. UP's Rights:

(a) Subject to the terms and conditions contained herein, BNSF grants to UP the nonexclusive right to use the Joint Trackage for the limited operation of two (2) trains per day (without restriction as to direction) between the hours of 1600 and 0800 for the sole purpose of

interchanging Equipment between CN's Johnson Yard in Memphis and UP's Sargent Yard in Memphis in common with BNSF and such other railroad company or companies as BNSF has heretofore admitted or may hereafter at any time in the future admit to the joint use of all or part of the Joint Trackage (provided that such future admittance shall not materially hinder or obstruct the fair and reasonable exercise of the rights granted in this Agreement), such other railroad company or companies to hereinafter be considered BNSF for the purposes of this Agreement, it being understood and agreed that UP shall not have the right to:

(i) Switch industries or transload upon the Joint Trackage except as permitted in Section 2 (a) (iii) below; or

(ii) Set out, pick up or store Equipment upon the Joint Trackage, or any part thereof, except as otherwise provided in Sections 2.12, 2.13 and 2.14 of Exhibit B; or

(iii) Serve any industry, team or house track, intermodal or auto facility now existing or hereafter located along the Joint Trackage, except as permitted in an agreement between the parties dated December 17, 1965; or

(iv) Permit or admit any third party to the use of all or any portion of the Joint Trackage, nor, under the guise of doing its own business, contract or make any agreement to handle as its own Equipment over or upon the Joint Trackage, or any portion thereof, the Equipment of any such third party which in the normal course of business would not be considered the Equipment of UP; provided, however, that the foregoing shall not prevent UP, pursuant to a run-through agreement with any railroad, from using the locomotives and cabooses of another railroad as its own under this Agreement; or

(v) Connect with itself at any location along the Joint Trackage; or

(vi) Connect with any other railroad at any location along the Joint Trackage except as required to complete movements between CN's Johnson Yard and UP's Sargent Yard ; or

(vii) Build-in to or build out from any point on or along the Joint Trackage; or

(viii) Interchange with any other railroad or perform haulage services for any other railroad on or along the Joint Trackage.

(b) The rights granted in Section 2 (a), above, shall be for rail freight traffic, carload and intermodal, of all commodities.

(c) UP agrees that when entering, exiting, setting out or picking up from its existing lines of railroad or trackage rights lines ("UP's Operations"), it shall do so without

unreasonable interference or impairment of the Joint Trackage. However, except as may be expressly agreed otherwise by the parties in writing, UP agrees that if sufficient trackage is not available at such location(s) to facilitate UP's Operations, BNSF may require UP to construct additional trackage ("Additional Trackage") in the vicinity of such location(s) as may be required in the reasonable judgment of BNSF, the cost and expense of which shall be borne solely by UP. In the event such Additional Trackage is constructed at the cost and expense of UP, and BNSF shall choose to use such Additional Trackage, BNSF shall pay UP fifty percent (50%) of the cost of constructing such Additional Trackage plus per annum interest thereon at a rate equal to the average paid on 90-day Treasury Bills of the United States Government as of the date of completion until the date of use by BNSF commences. Per annum interest shall be adjusted annually on the first day of the twelfth (12th) month following the date of completion and every year thereafter on such date, based on the percentage increase or decrease in the average yield of 30-year U.S. Treasury Notes for the prior year compared to their average yield in first year of completion of the Additional Trackage. Each annual adjustment shall be subject, however, to a "cap" (up or down) of two percentage points of the prior year's interest rate (i.e., the adjustment may not exceed an amount equal to two percentage points of the immediately preceding year's interest rate).

(d) BNSF will make best efforts, consistent with reasonable operating practices, to maintain clear route access over the Joint Trackage.

Section 3. UP Train Operations:

UP trains must secure from the appropriate dispatch personnel an operational slot (hereafter "Landing Spot") before entering BNSF trackage.

Section 4. Per Car Rate:

(a) In addition to other payments to be made under this Agreement, UP shall pay BNSF $0.62 per Car (hereinafter called, "Per Car Rate") on a monthly basis for its access to and use of the Joint Trackage. The Per Car Rate includes Ordinary Maintenance and Programmed Maintenance, operating expenses, interest rental, depreciation and taxes.

(b) For the purposes of computing the Car Miles under this Section 4, the parties mutually agree that the distance between the designated points on the Joint Trackage is 2.2 miles. In the event Capacity Improvements or Changes and/or Additions to the Joint Trackage result in changes to the mileage provided above, then the distances listed above will be adjusted up or down to reflect the new mileage and the new mileage will be used to calculate Per Car Rate effective as of commencement of train operations over such Capacity Improvements or Changes and/or Additions to the Joint Trackage.

(c) The Per Car Rate shall be subject to adjustment annually beginning on July 1, 2010 to reflect (75%) of increases or decreases in the Rail Cost Adjustment Factor ("Index"), not adjusted for changes in productivity ("RCAF-U"), and published by the AAR or successor agency or other organization. In the event the RCAF-U is no longer maintained, the parties shall select a substantially similar index and failing to agree on such an index, the matter shall be referred to binding arbitration under Exhibit B.

The ratio between the Index for 4th quarter of the year immediately prior to any year in which an increase or decrease is to be made effective and the Index for 4th quarter of 2009 shall be developed, and the Per Car Rate shall be increased or decreased in direct proportion to such ratio thus yielding the new effective Per Car Rate. When the RCAF-U 4th quarter index is restated to 1.00, then the current Per Car Rate will become a new base and the 4th quarter restated to 1.000 will be the new base year replacing 2009. Provided, however, under no circumstances shall the Per Car Rate ever be less than the initial amount of $0.62 per car.

Additionally, in calculating adjustments, (i) all published values will be rounded to a thousandth of an index point; (ii) all percent change calculations will be rounded to a tenth of a percent; and (iii) the Per Car Rate will be rounded to the nearest whole cent. The Parties agree that the rounding rule used will be that any fraction less than one-half will be dropped, while any fraction equal to or greater than one-half will be rounded up to the next higher value.

In the event the AAR (or any successor organization) ceases to publish the Index, the Parties shall determine a substitute index. The substitute index shall be the index that most closely matches the Index. The substitute index shall be used for the remainder of the term of the Original Agreement. If the Parties cannot agree on a substitute index within ninety (90) days after the cancellation of the Index, either Party may submit the matter to be determined by binding arbitration.

All rates/charges/fees will be adjusted up or down depending on the Index, but under no circumstances shall the Per Car Rate ever decrease below the base rate(s) published herein through application of the adjustment formula provided herein. In no event shall any adjusted rate be less than the base rate set forth in this Agreement.

(d) UP shall furnish BNSF, at the end of each month, a statement of the number of cars operated over the Joint Trackage during the month.

Section 5. Additions

(a) Expenditures for any future Changes in and/or Additions to the Joint Trackage, such as, but not limited to, sidings, Centralized Traffic Control, grade separations, and future connections, shall be handled as follows: The cost of such Changes in and/or Additions to the Joint Trackage made in the first twelve (12) months after UP begins permanent operations on the Joint Trackage shall be shared by BNSF and UP based on the projected proportion of UP's number of Car Miles moved over the Joint Trackage to the total number of Car Miles moved over the Joint Trackage in

the first twelve (12) months of usage, adjusted for actual number of Car Miles moved over the Joint Trackage at the end of the twelve (12)-month period. Any Changes in and/or Additions to the Joint Trackage subsequent to the first twelve (12) months of permanent UP operations shall be shared by BNSF and UP on the basis that the parties' respective number of Car Miles operated over the Joint Trackage bear to total number of Car Miles operated over the Joint Trackage for the twelve (12) month period immediately prior to the month work on the project is commenced. The use of Joint Trackage by any third party shall be attributed to BNSF for purposes of computing respective Car Miles for purposes of this Section 5.

(b) If UP terminates this Agreement at any time as provided for in Section 9.1 of the General Conditions, UP will not be entitled to any refund of any amount paid by it for Changes in and/or Additions to the Joint Trackage.

Section 6. Effective Date, Term and Termination:

Subject to and conditioned upon approval of the U.S. Department of Transportation Surface Transportation Board ("STB"), this Agreement shall be effective as of the date STB approval is effective ("Effective Date"), and shall remain in effect for the Term stated in the General Conditions. Liabilities created under this Agreement shall survive any such termination.

Section 7. Notices:

All notices, demands, requests, submissions and other communications which are required or permitted to be given pursuant to this Agreement shall be given by either party to the other in writing and shall be deemed properly served if delivered by hand, or mailed by overnight courier or by registered or certified mail, return receipt requested, with postage prepaid, to such other party at the address listed below:

If intended for UP:

Executive Vice President-Operations
Mail Stop 1180
1400 Douglas Street
Omaha, Nebraska 68179

With a copy to:

General Manager Joint Facilities
Mail Stop 1180
1400 Douglas Street
Omaha, Nebraska 68179

If intended for BNSF:

Sr. Vice President-Operations
2600 Lou Menk Drive
P.O. Box 961034
Fort Worth, Texas 76161-0034

With a copy to:

AVP Contracts and Joint Facilities
2600 Lou Menk Drive
P.O. Box 961034
Fort Worth, Texas 76161-0034

Notice of address change may be given any time pursuant to the provisions of this Section 7.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

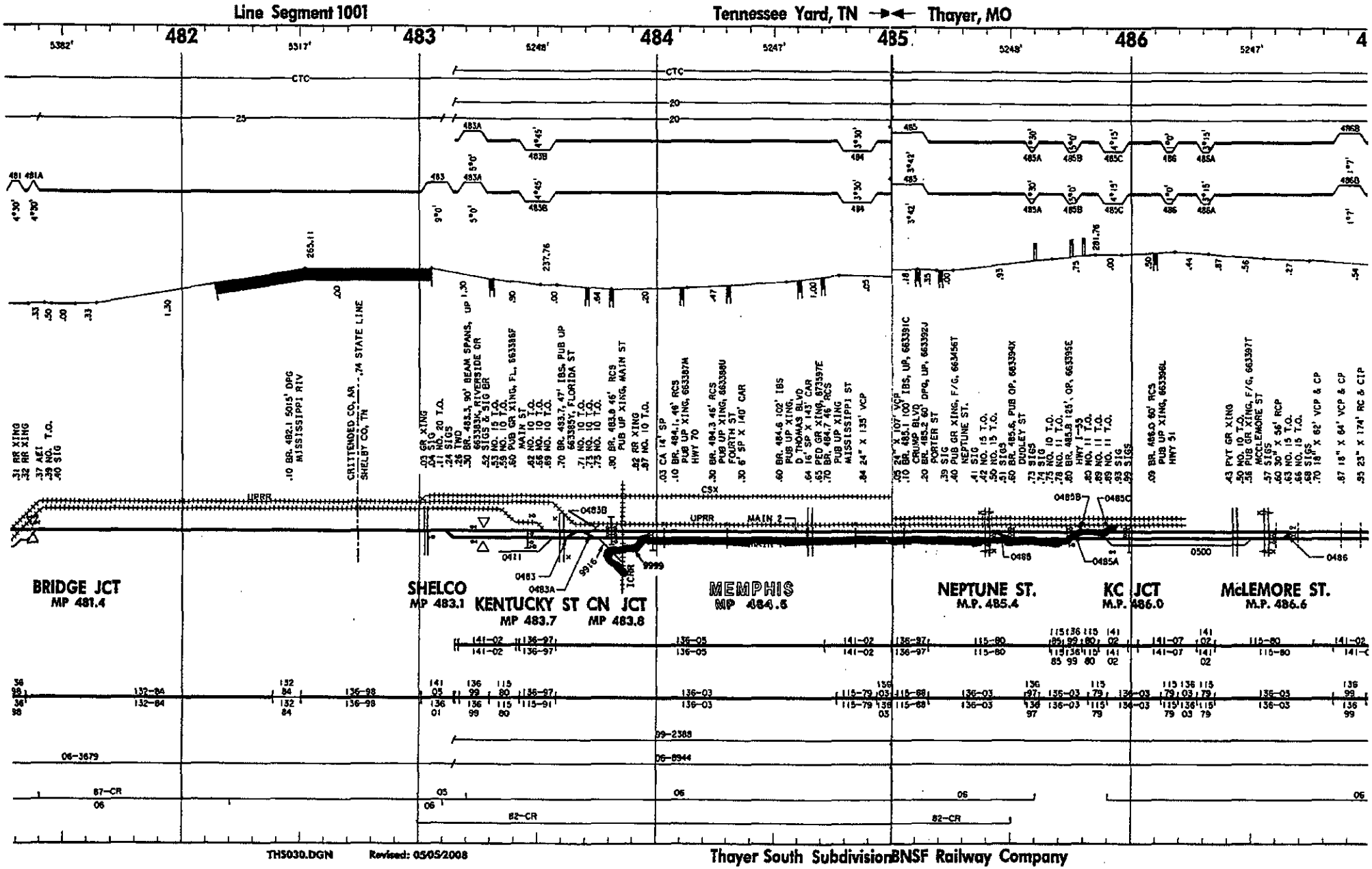
UNION PACIFIC RAILROAD COMPANY **BNSF RAILWAY COMPANY**

By: _____ By: _____

Printed: John H. Rebensdorf Printed: JEFFREY B. WRIGHT

Its: Vice President Network Plng & Ops. Its: Central Region Vice President

Exhibit A



[redacted] - Joint Trackage

EXHIBIT "B"

GENERAL CONDITIONS

TRACKAGE RIGHTS AGREEMENT

BETWEEN KENTUCKY STREET AND KC JUNCTION

Section 1. DEFINITIONS

1.1 "Agreement" shall mean that certain agreement dated December 16, 2009, to which this Exhibit "B" is appended.

1.2 "Annual" shall mean a calendar year.

1.3 "Car" shall mean one (1) rail car; however, in the case of an articulated rail car the number of cars shall be determined by the AAR Car Type Code as defined in the UMLER Specification Manual. The second character in the Car Type Code field covering codes "Q" and "S" will be the factor in determining the car count for an articulated unit. For example, AAR Car Type Code (S566) would equate to a five (5) car count as these type cars have five wells capable of handling 40' to 48' containers in each well. (Car count data for articulated units are subject to change upon development of technology to separate units by car numbers.) Notwithstanding the above, it is the intent of the Parties that each well or platform of an articulated unit be counted as a car. Each locomotive shall be counted as two (2) cars.

1.4 "Changes in and/or Additions to" shall mean work projects and retirements, the cost of which is chargeable in whole or in part to Property Accounts during the term of this Agreement.

1.5 "Equipment" shall mean trains, locomotives, rail cars (loaded or empty), intermodal units (loaded or empty), cabooses, vehicles, and machinery which are capable of being operated on railroad tracks or on right-of-way for purpose of the maintenance or repair of such railroad tracks.

1.6 "GTM" shall mean gross ton mile which is the weight in tons for Equipment and lading transported over one (1) mile of track included in the Joint Trackage.

1.7 "GTM Handled Proportion" shall mean the GTMs handled over the Joint Trackage by or for a party divided by the total number of GTMs handled by or for all parties using the Joint Trackage, during the same period. For the purpose of computing such GTM's Handled Proportion, Equipment engaged in work service pertaining to construction, maintenance or operation of the Joint Trackage or Changes in and/or Additions to the Joint Trackage shall not be counted and GTMs of third parties shall be attributed to the Owner.

1.8 "Joint Trackage" shall mean the track structure of Owner as described in the Agreement including necessary right-of-way and all appurtenances, signals, communications, and facilities of Owner and all Changes in and/or Additions to said track structure now or in the future located as are required or desirable for the operation of the Equipment of the parties hereto.

1.9 "Mill" shall mean one-tenth of a cent ($0.001 US).

1.10 "Owner" shall have the meaning given to it in the Agreement.

1.11 "Property Accounts" shall mean accounts so designated under the Uniform System of Accounts for Railroad Companies prescribed by the Interstate Commerce Commission, or any replacement of such system prescribed by the applicable federal regulatory agency, if any, and used by the parties hereto.

1.12 "STB" shall mean the Surface Transportation Board of the United States Department of Transportation or any successor agency.

1.13 "User" shall have the meaning given to it in the Agreement.

Section 2. MAINTENANCE, ADDITIONS, OPERATION, AND CONTROL

2.1 Owner shall have sole charge of the maintenance and repair of the Joint Trackage with its own supervisors, labor, materials and equipment. Owner, from time to time, may make such Changes in and/or Additions to the Joint Trackage as shall be required by any law, rule, regulation or ordinance promulgated by any government body having jurisdiction, or as Owner, in its sole discretion, shall deem necessary, subject to Section 2.2. Such Changes in and/or Additions to the Joint Trackage shall become a part of the Joint Trackage or in the case of retirements shall be excluded from the Joint Trackage.

2.2 Unless otherwise mutually agreed to by the parties in writing, Owner shall, (i) keep and maintain the Joint Trackage on a consistent basis at no less than the track standard designated in the timetable in effect on the date of the Agreement, including special instructions for the Joint Trackage as of the date of the Agreement, (ii) maintain at least the physical capacity of the Joint Trackage as of the date of the Agreement (i.e., number of main tracks, support tracks, signal systems, rail weight, line clearances, etc.), and (iii) be responsible for any Changes in and/or Additions to the Joint Trackage as shall be necessary to accommodate the traffic of Owner and User while maintaining existing service standards (including transit times) in effect on the date of the Agreement. In the event that User desires that the Joint Trackage be improved to a condition in excess of the standard set forth in this Section 2.2, or desires that other Changes in and/or Additions to be made to the Joint Trackage, Owner agrees to make such Changes in and/or Additions to the Joint Trackage if funded in advance by User. Thereafter, such Changes in and/or Additions to the Joint Trackage shall become part of the Joint Trackage and shall be maintained by Owner in such improved condition.

2.3 Owner shall employ all persons necessary to construct, operate, maintain, repair and renew the Joint Trackage. Owner shall be bound to use reasonable and customary care, skill and diligence in the construction, operation, maintenance, repair and renewal of the Joint Trackage and in managing of the same. Owner shall make its best effort to ensure that User is given the same advance notice of maintenance plans and schedules as is provided to Owner's personnel.

2.4 The trackage rights granted hereunder shall give User access to and joint use of the Joint Trackage equal to that of Owner. The management, operation (including dispatching) and maintenance of the Joint Trackage shall, at all times, be under the exclusive direction and control of Owner, the movement of Equipment over and along the Joint Trackage shall at all times be subject to the exclusive direction and control of Owner's authorized representatives and in accordance with such reasonable operating rules as Owner shall from time to time institute, but in the management, operation (including dispatching) and maintenance of the Joint Trackage, Owner and User shall be treated equally. All operating, dispatching and maintenance decisions by Owner affecting the movement of Equipment on the Joint Trackage shall be made pursuant to the BNSF-UP/SP Dispatching Protocols attached hereto as Attachment 1. User shall, at User's sole cost and expense, obtain, install and maintain necessary communication equipment to allow User's Equipment to communicate with Owner's dispatching and signaling facilities the same as Owner's trains so utilize. Owner shall consult with User prior to the adoption of new communication or signaling systems to be employed on the Joint Trackage, which have not theretofore been generally adopted in the railroad industry.

2.5 A Joint Service Committee ("Committee"), comprised of the chief transportation officers of Owner and User (or their designees) has been established, and is responsible for establishing rules or standards as appropriate to ensure equitable and non-discriminatory treatment, appropriate maintenance and efficient joint use of the Joint Trackage. The Committee shall meet when any party serves upon the other party thirty (30) days' written notice of its desire to meet to review the overall performance of Equipment on the Joint Trackage, conflicts, if any, experienced between Equipment of Owner and Equipment of User, grievances over the handling of particular Equipment or operational events, maintenance of the Joint Trackage, ways in which future conflicts may be minimized, ways of improving operations and maintenance of the Joint Trackage and such other relevant matters as the Committee may decide to consider. The Committee may issue standards or rules to prevent unnecessary interference or impairment of use of the Joint Trackage by either party or otherwise ensure fair and equal treatment as between Owner and User. Either party may request a special meeting of the Committee on reasonable notice to the other. Informal telephonic conferences shall be held by the Committee where appropriate to address immediate concerns of either party. It is expected that the work on the Committee shall be undertaken in a spirit of mutual cooperation consistent with the principles expressed in the Agreement.

2.6 If the use of the Joint Trackage shall at any time be interrupted or traffic thereon or thereover be delayed for any cause, neither party shall have or make any claim against the other for loss, damage or expense caused by or resulting solely from such interruption or delay.

2.7 Owner may from time to time provide any track or tracks on the Joint Trackage other than those delineated in Exhibit A to the Agreement for use by User provided there shall at all times be afforded User a continuous route of equal utility for the operations of its Equipment between the termini of the Joint Trackage. When such tracks which are not part of the Joint Trackage are used as provided herein, the Agreement shall govern for purposes of direction and control and liability as if all movement had been made over the Joint Trackage.

2.8 Each party shall be responsible for furnishing, at its sole cost and expense, all labor, fuel, train supplies and other supplies necessary for the operation of its own Equipment over the Joint Trackage. In the event a party does furnish such labor, fuel or train and other supplies to another party, the party receiving the same shall promptly, upon receipt of billing therefor, reimburse the party furnishing the same for its reasonable costs thereof, including customary additives.

2.9 User shall be responsible for the reporting and payment of any mileage, per diem, use or rental charges accruing on Equipment in User's account on the Joint Trackage. Except as may be specifically provided for in this Agreement, nothing herein contained is intended to change practices with respect to interchange of traffic between the parties or with other carriers on or along the Joint Trackage.

2.10 Except as otherwise may be provided in the Agreement, User shall operate its Equipment over the Joint Trackage with its own employees, but before said employees are assigned or permitted to operate Equipment over the Joint Trackage as herein provided, and from time to time thereafter as and when reasonably requested by Owner, they shall be required to pass the applicable rules examinations required by Owner of its own employees. Owner shall delegate to specified User's officers the conduct of such examinations in the event User chooses to conduct such examinations. If an Owner officer conducts such examinations of employees of User, User shall pay Owner a reasonable fee for each employee so examined, such fee to be mutually agreed upon by the parties from time to time in a separate agreement. Notwithstanding any such examination, User shall be responsible for ensuring that its employees are qualified and have taken all such rules examinations. Upon request of User, Owner shall qualify one or more of User's supervisory officers as pilots and such supervisory officer or officers so qualified shall qualify employees of User engaged in or connected with User's operations on or along the Joint Trackage. At User's request, Owner shall furnish a pilot or pilots, at the expense of User, to assist in operating trains of User over the Joint Trackage. Should Owner ever require a pilot on User's Equipment after the initial start-up period on a frequent basis, that matter shall be referred to the Committee for resolution.

2.11 If any employee of User shall neglect, refuse or fail to abide by Owner's rules, instructions and restrictions governing the operation on or along the Joint Trackage, such employee shall, upon written request of Owner, be prohibited by User from working on the Joint Trackage. If either party shall deem it necessary to hold a formal investigation to establish such neglect, refusal or failure on the part of any employee of User, then upon such notice presented in writing, Owner and User shall promptly hold a joint investigation in which the parties concerned shall participate and

bear the expense for their respective officers, counsel, witnesses and employees. Notice of such investigations to User's employees shall be given by User's officers, and such investigation shall be conducted in accordance with the terms and conditions of schedule agreements between User and its employees. If, in the judgment of Owner, the result of such investigation warrants, such employee shall, upon written request by Owner, be withdrawn by User from service on the Joint Trackage, and User shall release and indemnify Owner from and against any and all claims and expenses arising from such withdrawal.

If the disciplinary action is appealed by an employee of User to the National Railroad Adjustment Board or other tribunal lawfully created to adjudicate such cases, and if the decision of such board or tribunal sustains the employee's position, such employee shall not thereafter be barred from service on the Joint Trackage by reason of such disciplinary action.

2.12 If any Equipment of User is bad ordered enroute on the Joint Trackage and (i) it is necessary that it be set out, and (ii) only light repairs to the Equipment are required, such bad ordered Equipment shall be promptly repaired, and, thereafter, be promptly removed from the Joint Trackage by User. Owner may, upon request of User and at User's sole cost and expense, furnish the required labor and material and perform light repairs to make such bad ordered Equipment safe for movement. The employees and Equipment of Owner while in any manner so engaged or while enroute to or returning to Owner's terminal from such an assignment shall be considered Sole Employees (as hereinafter defined) of User and Sole Property (as hereinafter defined) of User. However, should Owner's employees after repairing such bad ordered Equipment for User move directly to perform service for Owner's benefit rather than return to Owner's terminal, then User's exclusive time and liability will end when Owner's employees depart for work to be performed for Owner's benefit. In the case of such repairs by Owner to freight cars in User's account, billing therefor shall be in accordance with the Field and Office Manuals of the Interchange Rules, adopted by the Association of American Railroads ("AAR"), hereinafter called "Interchange Rules", in effect on the date of performance of the repairs. Owner shall then prepare and submit billing directly to and collect from the car owner for car owner responsibility items as determined under said Interchange Rules, and Owner shall prepare and submit billing directly to and collect from User for handling line responsibility items as determined under said Interchange Rules. Owner also shall submit billing to and collect from User any charges for repair to freight cars that are User's car owner responsibility items as determined under said Interchange Rules, should said car owner refuse or otherwise fail to make payment therefor. Repairs to locomotives shall be billed as provided for in Section 3 of these General Conditions.

2.13 If Equipment of User shall become derailed, wrecked, or otherwise disabled while upon the Joint Trackage, it shall be re-railed or cleared by Owner, except that employees of User may re-rail User's derailed Equipment on the Joint Trackage whenever use of motorized on or off track equipment is not required; however, in any such case, employees of User shall consult with and be governed by the directions of Owner. Owner reserves the right to re-rail Equipment of User when, in the judgment of Owner, Owner deems it advisable to do so to minimize delays and interruptions to train movement. The reasonable costs and expenses of rerailing or clearing derailed, wrecked or

disabled Equipment shall be borne by the parties in accordance with Section 5 of these General Conditions. Services provided under this section shall be billed in accordance with Section 3 of these General Conditions.

2.14 In the event Equipment of User shall be forced to stop on the Joint Trackage, and such stoppage is due to insufficient hours of service remaining among User's employees, or due to mechanical failure of User's Equipment (other than bad ordered Equipment subject to light repairs pursuant to Section 2.12), or to any other cause not resulting from an accident or derailment (including the failure of User to promptly repair and clear bad ordered Equipment pursuant to Section 2.12), and such Equipment is unable to proceed, or if a train of User fails to maintain the speed required by Owner on the Joint Trackage, or if, in emergencies, disabled Equipment is set out of User's trains on the Joint Trackage, Owner shall have the option to furnish motive power or such other assistance (including but not limited to the right to re-crew User's train) as may be necessary to haul, help or push such Equipment, or to properly move the disabled Equipment off the Joint Trackage. The reasonable costs and expenses of rendering such assistance shall be borne by User. Services provided under this section shall be billed in accordance with Section 3 of these General Conditions.

2.15 User shall pay to Owner reasonable expenses incurred by Owner in the issuance of timetables made necessary solely by changes in the running time of the trains of User over the Joint Trackage. If changes in running time of trains of Owner or third parties, as well as those of User, require the issuance of timetables, then User shall pay to Owner that proportion of the expenses incurred that one bears to the total number of parties changing the running time of their trains. If changes in running time of trains of Owner or third parties, but not those of User, require the issuance of timetables, then User shall not be required to pay a proportion of the expenses incurred in connection therewith.

2.16 User, at Owner's request, shall be responsible for reporting to Owner the statistical data called for in the Agreement, which may include, but is not limited to, the number and type of Equipment and GTMs operated on the Joint Trackage.

Section 3. BILLING

3.1 Billing shall be accomplished on the basis of data contained in a billing form mutually agreed to between the parties. Such billing forms shall contain sufficient detail to permit computation of payments to be made hereunder. Billing shall be prepared according to the rules, additives, and equipment rental rates as published by the Owner. User shall pay to Owner at the Office of the Treasurer of Owner, or at such other location as Owner may from time to time designate in writing, all the compensation and charges of every name and nature which in and by the Agreement User is required to pay in lawful money of the United States within sixty (60) days after the rendition of bills therefor. Bills shall contain a statement of the amount due on account of the expenses incurred, properties and facilities provided and services rendered during the billing period.

3.2 Errors or disputed items in any bill shall not be deemed a valid excuse for delaying payment, but shall be paid subject to subsequent adjustment; provided, no exception to any bill shall be honored, recognized or considered if filed after the expiration of three (3) years from the last day of the calendar month during which the bill is rendered and no bill shall be rendered later than three (3) years (i) after the last day of the calendar month in which the expense covered thereby is incurred, or (ii) in the case of claims disputed as to amount or liability, after the amount is settled and/or the liability is established. This provision shall not limit the retroactive adjustment of billing made pursuant to exception taken to original accounting by or under authority of the STB or retroactive adjustment of wage rates and settlement of wage claims.

3.3 So much of the books, accounts and records of each party hereto as are related to the subject matter of this Agreement shall at all reasonable times be open to inspection by the authorized representatives and agents of the parties hereto. All books, accounts, and records shall be maintained to furnish readily full information for each item in accordance with any applicable laws or regulations.

3.4 Should any payment become payable by Owner to User under the Agreement, the provisions of Sections 3.1 and 3.2 of these General Conditions shall apply with User as the billing party and Owner as the paying party.

3.5 Either party hereto may assign any receivables due it under this Agreement; provided, however, that such assignments shall not relieve the assignor of any rights or obligations under the Agreement.

Section 4. COMPLIANCE WITH LAWS

4.1 With respect to operation of Equipment on the Joint Trackage, each party shall comply with all applicable federal, state and local laws, rules, regulations, orders, decisions and ordinances ("Standards"), and if any failure on the part of any party to so comply shall result in a fine, penalty, cost or charge being imposed or assessed on or against another party, such other party shall give prompt notice to the failing party and the failing party shall promptly reimburse and indemnify the other party for such fine, penalty, cost or charge and all expenses and reasonable attorneys' fees incurred in connection therewith, and shall upon request of the other party defend such action free of cost, charge and expense to the other party.

4.2 User agrees to comply fully with all applicable Standards concerning "hazardous waste" and "hazardous substances" ("Hazardous Materials"). User covenants that it shall not treat or dispose of Hazardous Materials on the Joint Trackage. User further agrees to furnish Owner (if requested) with proof, satisfactory to Owner, that User is in such compliance.

In the event any accident, bad ordered Equipment, derailment, vandalism or wreck (for purposes of this Section 4.2 and 4.3 hereinafter called collectively "Derailment") involving Equipment of or a train operated by User carrying Hazardous Materials shall occur on any segment

of the Joint Trackage, any report required by federal, state or local authorities shall be the responsibility of User. User shall also advise the owner/shipper of the Hazardous Materials involved in the Derailment, and Owner, immediately.

In the event of a Derailment, Owner shall assume responsibility for cleaning up any release of Hazardous Materials from User's Equipment in accordance with all federal, state, or local regulatory requirements. User may have representatives at the scene of the Derailment to observe and provide information and recommendations concerning the characteristics of Hazardous Materials release and the cleanup effort. Such costs shall be borne in accordance with Section 5 of these General Conditions.

If a Hazardous Materials release caused by a derailment involving Equipment of User, or on a train operated by User, results in contamination of real property or water on the Joint Trackage or on real property or water adjacent to the Joint Trackage (whether such real property or water is owned by Owner or a third party), Owner shall assume responsibility for emergency cleanup conducted to prevent further damage. User shall be responsible for performing cleanup efforts thereafter. Any costs associated with cleaning up real property or water on or adjacent to the Joint Trackage contaminated by Hazardous Materials shall be borne in accordance with Section 5 of these General Conditions.

If Hazardous Materials must be transferred to undamaged Equipment or trucks as a result of a release caused by a derailment involving Equipment of User, or on a train operated by User, User shall perform the transfer; PROVIDED, HOWEVER, that if the Hazardous Materials are in damaged Equipment that is blocking the Joint Trackage, Owner, at its option, may transfer the Hazardous Materials with any costs associated with such transfer borne in accordance with Section 5 of these General Conditions. Transfers of Hazardous Materials by User shall only be conducted after being authorized by Owner.

4.3 The total cost of clearing a Derailment, cleaning up any Hazardous Materials released during such Derailment, and/or repairing the Joint Trackage or any other property damaged thereby shall be borne by the party or parties liable therefor in accordance with Section 5 of these General Conditions.

4.4 In the event of release of Hazardous Materials caused by faulty Equipment or third parties, cleanup will be conducted as stated in Sections 4.2 and 4.3 of these General Conditions.

Section 5. LIABILITY

5.1 General. The provisions of this Section 5 shall apply only as between the parties hereto and are solely for their benefit. Nothing herein is intended to be for the benefit of any person or entity other than the parties hereto. It is the explicit intention of the parties hereto that no person or entity other than the parties hereto is or shall be entitled to bring any action to enforce any provision hereof against any of the parties hereto, and the assumptions, indemnities, covenants,

undertakings and agreements set forth herein shall be solely for the benefit of, and shall be enforceable only by, the parties hereto. Notwithstanding anything contained in this Section 5, no provisions hereof shall be deemed to deprive Owner or User of the right to enforce or shall otherwise restrict any remedies to which they would otherwise be entitled under other provisions of this Agreement as a result of the other party's failure to perform or observe any other obligation or duty created by this Agreement. The provisions of this Section 5 shall apply as between the parties hereto irrespective of the terms of any other agreements between the parties hereto and other railroads using the Joint Trackage, and the allocation of liabilities provided for herein shall control as between the parties hereto.

5.2 Definitions and Covenants. The parties agree that for the purposes of this Section 5:

(a) The term "Employee(s)" of a party shall mean all officers, agents, employees and contractors of that party. Such Employees shall be treated either as "Sole Employees" or "Joint Employees", as hereinafter specified;

(b) "Sole Employees" and "Sole Property" shall mean one or more Employees, Equipment, tools and other equipment and machinery while engaged in, en route to or from, or otherwise on duty incident to performing service for the exclusive benefit of one party. Pilots furnished by Owner to assist in operating Equipment of User shall be considered the Sole Employees of User while engaged in such operations. Equipment shall be deemed to be the Sole Property of the party receiving the same at such time as deemed interchanged under AAR rules or applicable interchange agreements, or when such party is responsible for the car hire or per diem for the Equipment under agreement between the parties;

(c) "Joint Employee" shall mean one or more Employees while engaged in maintaining, repairing, constructing, renewing, removing, inspecting or managing the Joint Trackage or making Changes in and/or Additions to the Joint Trackage for the benefit of both of the parties hereto, or while preparing to engage in, en route to or from, or otherwise on duty incident to performing such service for the benefit of both parties;

(d) "Joint Property" shall mean the Joint Trackage and all appurtenances thereto, and all Equipment, tools and other equipment and machinery while engaged in maintaining, repairing, constructing, renewing, removing, inspecting, managing or making Changes in and/or Additions to the Joint Trackage for the benefit of both of the parties hereto, or while being prepared to engage in, en route to or from, or otherwise incident to performing such service;

(e) "Loss and/or Damage" shall mean injury to or death of any person, including Employees of the parties hereto, and loss or damage to any property, including property of the parties hereto and property being transported by the parties, which arises out of an incident occurring on, the Joint Trackage and shall include liability

for any and all claims, suits, demands, judgments and damages resulting from or arising out of such injury, death, loss or damage, except liability for punitive and exemplary damages. Loss and/or Damage shall include all costs and expenses incidental to any claims, suits, demands and judgments, including attorneys' fees, court costs and other costs of investigation and litigation. Loss and/or Damage shall further include the expense of clearing wrecked or derailed Equipment and the costs of environmental protection, mitigation or clean up necessitated by such wreck or derailment and shall include any liabilities for any third-party claims for personal injury or death, property damage, natural resource damage, or any penalties, judgments or fines associated with a release of any contaminants resulting from such wreck or derailment. Loss and/or Damage shall be reduced by any amount recovered from third parties;

(f) Operating Employees of Owner whose service may be jointly used by the parties hereto for the movement of trains over the Joint Trackage, including, but not limited to, train dispatchers, train order operators, operator clerks and watchmen shall at the time of performing their services be deemed to be Sole Employees of the party hereto for whose benefit said services may be separately rendered (during the time they are so separately rendered) and be deemed to be Joint Employees of the parties hereto at such time as their services may be rendered for the parties' joint benefit;

(g) All Employees, Equipment, tools and other equipment and machinery other than as described in (b), (c), (d) or (f) above or in Section 5.4. shall be deemed the Sole Employees of the employing party and the Sole Property of the using party;

(h) Any railroad not a party to this Agreement heretofore or hereafter admitted to the use of any portion of the Joint Trackage, shall, as between the parties hereto, be regarded in the same light as a third party. Without limiting the generality of the foregoing, neither of the parties hereto assumes any responsibility to the other under the provisions of this Agreement for any Loss and/or Damage occasioned by the acts or omissions of any employees of any such other railroad, or for any Loss and/or Damage which such other railroad shall be obligated to assume in whole or in part pursuant to law or any agreement relating to such other railroad's use of any portion of the Joint Trackage;

(i) For the purpose of this Section 5, Equipment of foreign lines being detoured over the Joint Trackage, and all persons other than Joint Employees engaged in moving such Equipment, shall be considered the Equipment and Employees of the party hereto under whose detour agreement or other auspices such movement is being made.

5.3 Reimbursement and Defense. The parties agree that:

(a) Each party hereto shall pay promptly Loss and/or Damage for which such party shall be liable under the provisions of this Section 5, and shall indemnify the other party against such Loss and/or Damage, including reasonable attorneys' fees and costs. If any suit or suits shall be brought against either of the parties hereto and any judgment or judgment shall be recovered which said party is compelled to pay, and the other party shall under the provisions of the Agreement be solely liable therefor, then the party which is so liable shall promptly repay on demand to the other party paying the same any monies which it may have been required to pay, whether in the way of Loss and/or Damage, costs, fees or other expenses; and if the Loss and/or Damage in such case or cases is joint or allocated between the parties to the Agreement, the party defendant paying the same or any costs, fees or other expenses shall be reimbursed by the other party as allocated pursuant to this Agreement;

(b) Each party covenants and agrees with the other party that it will pay for all Loss and/or Damage, both as to persons and property, and related costs which it has herein assumed, or agreed to pay, the judgment of any court in a suit by third party or parties to the contrary notwithstanding, and will forever indemnify and save harmless the other party, its successors and assigns, from and against all liability and claims therefor, or by reason thereof, and will pay, satisfy and discharge all judgments that may be rendered by reason thereof, and all costs, charges and expenses incident thereto;

(c) Each party hereto shall have the sole right to settle, or cause to be settled for it, all claims for Loss and/or Damage for which such party shall be solely liable under the provisions of this Section 5, and the sole right to defend or cause to be defended all suits for the recovery of any such Loss and/or Damage for which such party shall be solely liable under the provisions of this Section 5;

(d) User shall provide written notice to Owner of any accidents or events resulting in Loss and/or Damage within seven (7) days of its discovery or receipt of notification of such occurrence;

(e) In the event both parties hereto may be liable for any Loss and/or Damage under the provisions of this Section 5 ("Co-Liable"), and the same shall be settled by a voluntary payment of money or other valuable consideration by one of the parties Co-Liable therefor, release from liability shall be taken to and in the name of all the parties so liable; however, no such settlement in excess of the sum of One Hundred Thousand Dollars ($100,000) shall be made by or for any party Co-Liable therefor without the written consent of the other parties so liable, but any settlement made by any party in consideration of One Hundred Thousand Dollars ($100,000) or a lesser sum shall be binding upon the other parties and allocated in accordance with Section 5.5; and no party shall unreasonably withhold its consent to a settlement proposed by the other party; provided, however, that failure by a party to secure consent from the

other shall not release such other party to the extent the party who failed to obtain such consent demonstrates that the other party was not prejudiced by such failure.

(f) In case a claim or suit shall be commenced against any party hereto for or on account of Loss and/or Damage for which another party hereto is or may be solely liable or Co-Liable under the provisions of this Section 5, the party against whom such claim or suit is commenced shall give to such other party prompt notice in writing of the pendency of such claim or suit, and thereupon such other party shall assume or join in the defense of such claim or suit as follows: If the claim or suit involves Loss and/or Damage to the Sole Employees or Sole Property of a party or its invitee or property in its care, custody or control, that party shall assume and control the investigation and defense of such claim or suit; if the claim or suit involves Loss and/or Damage to third parties, Joint Employees or the Joint Trackage, the party whose Sole Employees or Equipment were involved in the incident shall investigate and defend such claim or suit; and if such claim or suit involves Loss and/or Damage to third parties, Joint Employees or the Joint Trackage and neither or both party's Equipment and Sole Employees were involved in the incident, Owner shall investigate and defend such claim or suit; provided that the other party also may participate in the defense of any of the foregoing if it may have liability as a result of such incident;

(g) No party hereto shall be conclusively bound by any judgments against the other party, unless the former party shall have had reasonable notice requiring or permitting it to investigate and defend and reasonable opportunity to make such defense. When such notice and opportunity shall have been given, the party so notified and the other party shall be conclusively bound by the judgment as to all matters which could have been litigated in such suit, including without limitation a determination of the relative or comparative fault of each.

5.4 Wrecks and Derailment. The cost and expense of repairing bad ordered Equipment, clearing wrecks or otherwise disabled Equipment or rerailing Equipment (and the costs of repair or renewal of damaged Joint Trackage or adjacent properties) shall be borne by the party whose Equipment was wrecked, disabled, or derailed or caused such damage. All Employees or Equipment, while engaged in, en route to or from, or otherwise incident to operating wrecker or work trains clearing wrecks, disabled Equipment or Derailments or engaged in repair or renewal of the Joint Trackage subsequent to any such wreck, disability or Derailment, shall be deemed to be Sole Employees and/or Sole Property of the party whose Equipment was wrecked, disabled or derailed. However, such Employees or Equipment, while en route from performing such clearing of wrecks, disabled Equipment or Derailments or repairing or renewing the Joint Trackage to perform another type of service, shall not be deemed to be performing service incident to the instant wreck, disability or Derailment.

5.5 Allocation.

(a) Each party shall bear all costs of Loss and/or Damage to its Sole Employees or its Sole Property, or property in its care, custody or control or its invitees without regard to which party was at fault.

(b) Loss and/or Damage to third parties (i.e., any person or entity other than a party hereto, a Sole Employee of either party, a Joint Employee or an invitee of either party) or their property, to Joint Employees or their property or to Joint Property shall be borne by the parties hereto as follows:

(I) If the Loss and/or Damage is attributable to the acts or omissions of only one party hereto, that party shall bear and pay all of such Loss and/or Damage.

(ii) If such Loss and/or Damage is attributable to the acts or omissions of more than one party hereto, such Loss and/or Damage shall be borne and paid by those parties in accordance with a comparative negligence standard, whereby each such party shall bear and pay a portion of the Loss and/or Damage equal to the degree of causative fault or percentage of responsibility for the Loss and/or Damage attributable to that party without regard to laws limiting recovery if one party is more than fifty percent (50%) at fault.

(iii) Loss and/or Damage to third parties or Joint Employees occurring in such a way that it cannot be determined how such Loss and/or Damage came about shall be apportioned equally between the parties, provided that, without limitation, User shall not bear or incur any liability for claims, suits, demands, judgments, losses or damages resulting from environmental contamination of or hazardous material on or released from the Joint Trackage, except contamination or a release of hazardous materials from User's own Equipment or caused by or arising from the actions or omissions of User or User's Employees, and then only in accordance with the other provisions hereof.

(c) The parties agree that the characterization herein of certain Employees as "Sole Employees" or "Joint Employees" is only for the purpose of allocating Loss and/or Damage suffered by those Employees. Except as specified in subsection (a) of this Section 5.5. (which provides for the allocation of certain Loss and/or Damage between the parties without regard to fault), no party shall be liable for the acts or omissions (negligent or otherwise) of any other party's Employee.

5.6 OWNER AND USER EXPRESSLY INTEND THAT WHERE ONE PARTY IS TO INDEMNIFY THE OTHER PURSUANT TO THE TERMS OF THIS AGREEMENT, SUCH INDEMNITY SHALL INCLUDE (1) INDEMNITY FOR THE NEGLIGENCE OR ALLEGED NEGLIGENCE, WHETHER ACTIVE OR PASSIVE, OF THE INDEMNIFIED PARTY WHERE THAT NEGLIGENCE IS A CAUSE OF THE LOSS OR DAMAGE; (2) INDEMNITY FOR STRICT LIABILITY OF THE INDEMNIFIED PARTY RESULTING FROM A VIOLATION OR

ALLEGED VIOLATION OF ANY FEDERAL, STATE OR LOCAL LAW OR REGULATION BY THE INDEMNIFIED PARTY, INCLUDING BUT NOT LIMITED TO THE FEDERAL EMPLOYERS LIABILITY ACT ("FELA"), THE SAFETY APPLIANCE ACT, THE LOCOMOTIVE INSPECTION ACT, THE OCCUPATIONAL SAFETY AND HEALTH ACT ("OSHA"), THE RESOURCE CONSERVATION AND RECOVERY ACT ("RCRA"), THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT ("CERCLA"), THE CLEAN WATER ACT ("CWA"), THE OIL POLLUTION ACT ("OPA"), AND ANY SIMILAR STATE STATUTE IMPOSING OR IMPLEMENTING SIMILAR STANDARDS; AND (3) INDEMNITY FOR ACTS OR ALLEGED ACTS OF GROSS NEGLIGENCE OF THE INDEMNIFIED PARTY, OR OTHER CONDUCT ON THE PART OF THE INDEMNIFIED PARTY FOR WHICH PUNITIVE DAMAGES MIGHT BE SOUGHT.

5.7 Notwithstanding any provision to the contrary in this Agreement, liability and indemnity for Loss and/or Damage to Joint Employees shall be governed by the terms of Section 1 of that certain letter agreement between Owner and User, dated January 24, 2003 (the "Letter Agreement") for so long as the Letter Agreement remains in effect. Accordingly, for purposes of the application of Section 1 of the Letter Agreement, this Agreement shall be deemed to be an agreement identified in Exhibit A of the Letter Agreement.

Section 6. ARBITRATION

6.1 If at any time a question or controversy shall arise between the parties hereto in connection with the Agreement upon which the parties cannot agree, such question or controversy shall be submitted to and settled by arbitration. Unless other procedures are agreed to by the parties, arbitration between the parties pursuant to this Section 6 shall be governed by the rules and procedures set forth in this Section 6. The parties acknowledge that other procedures have been agreed to for resolution of disputes concerning compliance with the BNSF-UP/SP Dispatching Protocols (attached hereto as Attachment 1) which procedures are set forth in Paragraph 13 thereof.

6.2 If the parties to the dispute are able to agree upon a single competent and disinterested arbitrator within twenty (20) days after written notice by one party of its desire for arbitration to the other party, then the question or controversy shall be submitted to and settled by that single arbitrator. Otherwise, any party (the notifying party) may notify the other party (the noticed party) in writing of its request for arbitration and nominating one arbitrator. Within twenty (20) days after receipt of said notice, the noticed party shall appoint an arbitrator and notify the notifying party in writing of such appointment. Should the noticed party fail within twenty (20) days after receipt of such notice to name its arbitrator, said arbitrator may be appointed by the Chief Judge (or acting Chief Judge) of the United States District Court for the District of Columbia upon application by either party after ten (10) days' written notice to the other party. The two arbitrators so chosen shall select one additional arbitrator to complete the board. If the arbitrators so chosen fail to agree upon an additional arbitrator, the same shall, upon application of a party, be appointed by said judge in the manner heretofore stated.

6.3 Upon selection of the arbitrator(s), said arbitrator(s) shall, with reasonable diligence, determine the questions as disclosed in said notice of arbitration, shall give both parties reasonable notice of the time and place (of which the arbitrator(s) shall be the judge) of hearing evidence and argument, may take such evidence as the arbitrator(s) shall deem reasonable or as either party may submit with witnesses required to be sworn, and hear arguments of counsel or others. If an arbitrator declines or fails to act, the party (or parties in the case of a single arbitrator) by whom the arbitrator was chosen or said judge shall appoint another to act in the arbitrator's place.

6.4 After considering all evidence, testimony and arguments, said single arbitrator or the majority of said board of arbitrators shall promptly state such decision or award and the reasoning for such decision or award in writing which shall be final, binding, and conclusive on all parties to the arbitration when delivered to them. The award rendered by the arbitrator(s) may be entered as a judgment in any court having jurisdiction thereof and enforced as between the parties without further evidentiary proceeding, the same as entered by the court at the conclusion of a judicial proceeding in which no appeal was taken. Until the arbitrator(s) shall issue the first decision or award upon any question submitted for arbitration, performance under the Agreement shall continue in the manner and form existing prior to the rise of such question. After delivery of said first decision or award, each party shall forthwith comply with said first decision or award immediately after receiving it.

6.5 Each party to the arbitration shall pay all compensation, costs, and expenses of the arbitrator appointed in its behalf and all fees and expenses of its own witnesses, exhibits, and counsel. The compensation, cost, and expenses of the single arbitrator or the additional arbitrator in the board of arbitrators shall be paid in equal shares by all parties to the arbitration.

6.6 The parties may obtain discovery and offer evidence in accordance with the Federal Rules of Civil Procedure Rules 26 - 37, and Federal Rules of Evidence, as each may be amended from time to time.

6.7 Interest computed annually, at a rate equal to the Prime Rate plus two (2) percentage points, shall be applied to any and all arbitrator's awards requiring the payment of money and shall be calculated from thirty (30) days following the date of the applicable arbitration decision. The term "Prime Rate" shall mean the minimum commercial lending rate charged by banks to their most credit-worthy customers for short-term loans, as published daily in the Wall Street Journal.

Section 7. GOVERNMENTAL APPROVAL and ABANDONMENT

7.1 Owner and User shall, at their respective cost and expense, initiate by appropriate application or petition and thereafter diligently prosecute proceedings for the procurement of all necessary consent, approval or authority from any governmental agency for the sanction of the Agreement and the operations to be carried on or conducted by User thereunder. User and Owner agree to cooperate fully to procure all such necessary consent, approval or authority.

7.2 In the event Owner shall be involuntarily dispossessed, including by threat of condemnation by competent public authority, of the right to operate upon and maintain any portion of its Joint Trackage and Owner fails or declines to replace said Joint Trackage, Owner shall have no obligation hereunder to provide tracks in replacement of such Joint Trackage for User's use, and User shall have and shall make no claim of any kind, legal or otherwise, against Owner for failure to provide such Joint Trackage for User's use.

7.3 To the extent that Owner may lawfully do so, Owner reserves to itself the exclusive right, exercisable at any time during the life of the Agreement without concurrence of User, to elect to abandon all or any part of the Joint Trackage by giving six (6) months' prior written notice to User of its intention so to do ("Notice of Abandonment").

Owner shall, concurrent with its Notice of Abandonment, if legally able to do so, give to User the option to purchase the part or parts of the Joint Trackage thereof to be abandoned, at the Net Liquidation Value thereof, on the date of said notice. "Net Liquidation Value" shall mean fair market value of land and salvage value of track components less the estimated cost of removal. User shall have three (3) months from the date of receipt of Owners notice to exercise its option and shall evidence the exercise of its option by giving owner written notice thereof. Thereafter User shall immediately make appropriate application to secure all necessary governmental authority for such transaction. Within thirty (30) days following the effective date of all requisite governmental approval of the transaction, User shall pay to owner the amount of money required to purchase said Joint Trackage to be abandoned at the aforesaid Net Liquidation Value. Upon the receipt of payment of such sum the Agreement shall terminate as to the part of the Joint Trackage so purchased by User. Contemporaneously with such payment, by instrument or instrument, Owner shall convey and assign by good and sufficient quit claim deed or deeds, bills of sale or other instruments, all of Owner's right, title, interest, and equity, in and to the Joint Trackage so purchased. Owner agrees that it shall promptly take all necessary action to obtain from the trustees of its mortgages all releases or satisfactions covering the same and shall deliver to User such instruments.

If User fails to exercise the option herein granted within the time and in the manner above specified, Owner may forthwith proceed free of all obligation to User to, make appropriate application to secure all necessary governmental authority for such abandonment. User agrees that at such time it will concurrently make application for all necessary governmental authority for abandonment of its right to operate over the Joint Trackage. The Agreement shall terminate as to the section of Joint Trackage so abandoned upon the effective date of such approval by governmental authority.

7.4 Owner and User each shall be responsible for and shall bear labor claims, and employee protection payable to, its own respective employees (and employees of its respective affiliated companies) including any amounts that either Owner or User may be required to pay to its own respective employees pursuant to labor protective conditions imposed by the STB.

Section 8. CATASTROPHIC EXPENSE

Catastrophic expense to the Joint Trackage, such as, but not limited to, that arising from flood, earthquake or acts of God, etc., in excess of One Hundred Thousand Dollars ($100,000) for each occurrence shall be billed in addition to the GTM Rates and apportioned on the basis of the parties' GTMs operated over the Joint Trackage for the twelve (12) month period ending immediately prior to the first day of the month of occurrence.

Section 9. TERM

9.1 The Agreement shall be effective upon execution and shall run for an initial term of ninety-nine (99) years (Initial Term). At the end of the Initial Term, the User shall have the unilateral right to extend the Initial Term for an additional ninety-nine years (Extended Term). At the end of any Extended Term, the User shall have the right to extend the term of the Agreement for an additional term of ninety-nine (99) years. User shall have the right to terminate the Agreement upon twelve (12) months' prior notice to Owner. Liabilities created under this Agreement shall survive any such termination.

9.2 Upon termination of the Agreement, or any partial termination, as the applicable case may be, however the same may occur, User shall be released from any and all manner of obligations and shall be deemed to have forever relinquished, abandoned, surrendered and renounced any and all right possessed by User to operate over that part of the Joint Trackage to which such termination applied, and as to such part, User shall forever release and discharge Owner of and from any and all manner of obligations, claims, demands, causes of action, or suits which User might have, or which might subsequently accrue to User growing out of or in any manner connected with, directly or indirectly, the contractual obligations of Owner under the Agreement, in all events provided, however, the aforesaid relinquishment, abandonment, surrender, renunciation, release and discharge by User shall not in any case affect any of the rights and obligations of either Owner or User which may have accrued, or liabilities accrued or otherwise, which may have arisen prior to such termination or partial termination. Upon any termination, Owner shall remove from Owner's right of way any connecting track, and any exclusive facility of User, at User's expense with salvage to be delivered to and retained by User. Upon any partial termination of the Agreement, however the same may occur, the terms and conditions hereof shall continue and remain in full force and effect for the balance of the Joint Trackage.

Section 10. ASSIGNMENT

Except as provided in Section 3.5 and in the sentence immediately following, the Agreement and any rights granted hereunder may not be assigned in whole or in part by Owner or User without the prior written consent of the other. The Agreement may be assigned by Owner or User without the prior written consent of the other only (I) as a result of a merger, corporate reorganization, consolidation, change of control or sale of substantially all of its assets, or (ii) to an affiliate of the assigning party where the term "affiliate" means a corporation, partnership or other entity controlled, controlling or under common control with the assigning party. In the event of an

authorized assignment, the Agreement and the operating rights hereunder shall be binding upon the successors and assigns of the parties.

Section 11. DEFAULT

11.1 Notwithstanding the provisions of Section 3 of these General Conditions, either party hereto claiming default of any of the provisions of the Agreement (including these General Conditions) shall furnish notice and written demand to the other party for performance or compliance with the covenant or condition of the Agreement claimed to be in default, which notice shall specify wherein and in what respect such default is claimed to exist and shall specify the particular Section or Sections of the Agreement under which such claim of default is made.

11.2 If the default shall continue for an additional period of thirty (30) days after receipt of such written notice and demand, and such default has not been remedied within said thirty (30) day period, or reasonable steps have not been nor continue to be taken to remedy a failure or default which cannot reasonably be remedied within said thirty (30) day period, and such default relates to the provisions and terms of the Agreement, either party shall resort to binding arbitration provided that the arbitrator shall not have the authority to amend, modify or terminate the Agreement.

11.3 Failure of a party to claim a default shall not constitute a waiver of such default. Either party hereto entitled to claim default may waive any such default, but no action by such party in waiving such default shall extend to or be taken to effect any subsequent defaults or impair the rights of either party hereto resulting therefrom.

Section 12. OTHER CONSIDERATIONS

12.1 The Agreement and each and every provision hereof is for the exclusive benefit of the parties hereto and not for the benefit of any third party. Nothing herein contained shall be taken as creating or increasing any right in any third person to recover by way of damages or otherwise against any of the parties hereto.

12.2 If any covenant or provision of the Agreement not material to the right of User to use the Joint Trackage shall be adjudged void, such adjudication shall not affect the validity, obligation or performance of any other covenant or provision which is in itself valid. No controversy concerning any covenant or provision shall delay the performance of any other covenant or provision. Should any covenant or provision of the Agreement be adjudged void, the parties shall make such other arrangements as will effect the purposes and intent of the Agreement.

12.3 In the event there shall be any conflict between the provisions of these General Conditions and the Agreement, the provisions of the Agreement shall prevail, except that the definition of Joint Trackage set forth in Section 1.7 of these General Conditions shall prevail.

12.4 All section headings are inserted for convenience only and shall not affect any construction or interpretation of the Agreement.

12.5 Reference to any agency or other organization shall include any successor agency or organization, and reference to any index or methodology (e.g., RCAF-U, URCS, etc.), if such index or methodology ceases to exist or is no longer available, shall include any substantially similar index or methodology selected by the parties or, if the parties fail to agree on such, one determined by binding arbitration under Section 6 of these General Conditions.

END OF EXHIBIT "B"

BNSF Contract Transmittal PUBLIC VERSION - REDACTED

Pursuant to BNSF's "Rules Governing Authority for Contracts, Deeds and Payments," complete the form and send with the original contract to: BNSF Corporate Support , c/o James Obermiller, 2500 Lou Menk Dr., Fort Worth, TX 76131. See attached instructions for more information.

ONLY ORIGINAL CONTRACT WITH ORIGINAL SIGNATURES ARE TO BE SUBMITTED TO CORPORATE SUPPORT

FORM SUBMITTED BY:	PHONE NUMBER	FAX NUMBER	DATE SUBMITTED
Bruce D Barrett	817.352.4939	817.352.7219	1/7/10

DEPARTMENT	LOCATION	CONTRACT SIGNED BY: Name and Title	OFFICER CODE
Contracts & Joint Facilities	Ft Worth TX	Jeffry B Wright	MISC

	DATE OF CONTRACT (mm/dd/yyyy)	EFFECTIVE DATE (mm/dd/yyyy)	EXPIRATION DATE (mm/dd/yyyy)	REVIEW DATE (mm/dd/yyyy)
☒ NEW CONTRACT Complete the following:	12/16/2009	12/16/2009		12/15/2109
☐ AMENDMENT Complete the following:	ORIGINAL CONTRACT NO.	ORIGINAL CONTRACT DATE (mm/dd/yyyy)	AMENDMENT DATE (mm/dd/yyyy)	
☐ CANCELLATION Complete the following:	ORIGINAL CONTRACT NO.	ORIGINAL CONTRACT DATE (mm/dd/yyyy)	TERMINATION DATE (mm/dd/yyyy)	

AMOUNT - TOTAL OR MAXIMUM CONSIDERATION	**LAW DEPT. APPROVAL REQUIRED** (SEE SECTION VI OF RULES GOVERNING AUTHORITY	**FINANCE DEPT. APPROVAL** (SEE SECTION VII OF RULES GOVERNING AUTHORITY). CHECK EACH THAT APPLIES.
CONTRACT TYPE CODE OPJF	☐ FORM NO. AND REVISION DATE: OR ☒ ATTORNEY'S APPROVAL: (ATTORNEY SIGNATURE) Kristy Clark OR ☐ DOCUMENTATION INDICATING ATTORNEY APPROVAL (APPROVAL IS ATTACHED)	☐ ACCOUNTING APPROVAL _____ AND/OR ☐ RISK MANAGEMENT APPROVAL _____ AND/OR ☐ TAX APPROVAL _____ AND/ OR ☐ DOCUMENTATION INDICATING APPROVAL IS ATTACHED, OR ☐ NO FINANCE DEPT. APPROVAL REQUIRED

CONTRACT PARTIES (OTHER THAN BNSF)

Union Pacific Railroad

DESCRIPTION OF THE CONTRACT — **IS CONTRACT ARRA FUNDED?** YES ☐ NO ☒

Grant UP trackag rights between Kentucky St and KC Jct in Memphis TN

CONFIDENTIAL (Y,N)	CPAR NUMBER	AFE NUMBER	VENDOR NO. ASSIGNED TO CONTRACT
☐ YES ☒ NO			

CONTRACT LOCATION			LINE SEGMENT / MILEPOST INFORMATION					
STATE	COUNTY	CITY	LINE SEG. #	FROM MP #	TO MP #	LINE SEG #	FROM MP #	TO MP #
TN	Shelby	Memphis	1001					

CONTRACT HAS MULTIPLE LOCATIONS	CROSS REFERENCE NUMBER
☐ YES ☐ NO	

DOT NUMBER	FEDERAL FUNDED (Y,N)	FEDERAL PROJECT ID #	STATE PROJECT ID #
	☐ YES ☐ NO		

CONTRACT OJT CLAUSE	WHAT IS THE CONTRACT TERM?	**CONTRACT MANAGER NAME** (print name)
NUMBER OF DAYS n/a	FIXED (DEFINITE) TERM ☒ ONGOING (INDEFINITE) TERM ☐ EVERGREEN (EXPIRATION DATE, THEN INDEFINITE) ☐	Travis Thowe

BNSF BILLS OTHER PARTY? (Y) (N) Y	**SUBMITTING DEPT. IS RESPONSIBLE FOR NOTIFYING CORPORATE SUPPORT WHEN CONTRACT IS CANCELLED**	CONTRACT NO. ASSIGNED BY CORPORATE SUPPORT
IF YES, ATTACH EXTRA COPY OF CONTRACT FOR ACCT. DISTRIBUTION **NOTE: NO OTHER DISTRIBUTION WILL BE MADE**	JAN [illegible]	BF 57851

CSU 13009 04/06

[illegible]

BEFORE THE

SURFACE TRANSPORTATION BOARD

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY – CONTROL – NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY	***STB Finance Docket No. 36873***

Verified Statement of Professor Dennis W. Carlton, Ph.D.

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I. QUALIFICATIONS, ASSIGNMENT, AND OVERVIEW OF TRANSACTION

A. QUALIFICATIONS

1. I am the David McDaniel Keller Professor of Economics Emeritus at the Booth School of Business of the University of Chicago. I received my A.B. in Applied Mathematics and Economics from Harvard University and my M.S. in Operations Research and Ph.D. in Economics from the Massachusetts Institute of Technology. I have served on the faculties of the Law School and the Department of Economics at the University of Chicago and the Department of Economics at the Massachusetts Institute of Technology.

2. I specialize in the economics of industrial organization. I am co-author of the book Modern Industrial Organization, a leading text in the field of industrial organization, and I also have published approximately 150 articles in academic journals and books. In addition, I serve as Co-Editor of the Journal of Law and Economics, a leading journal that publishes research applying economic analysis to industrial organization and legal matters; serve on the Editorial Board of Competition Policy International, a journal devoted to competition policy; and serve on the Advisory Board of the Journal of Competition Law and Economics. I have also served as an Associate Editor of the International Journal of Industrial Organization and Regional Science and Urban Studies, and on the Editorial Board of Intellectual Property Fraud Reporter. I was the 2014 Distinguished Fellow of the Industrial Organization Society.

3. In addition to my academic experience, I served as Deputy Assistant Attorney General for Economic Analysis, Antitrust Division, U.S. Department of Justice from October 2006 through January 2008. My responsibilities included supervising approximately 50 Ph.D. economists, helping formulate antitrust policy toward ongoing proposed mergers, analyzing general antitrust policies both horizontal and vertical, and communicating such policies to foreign and domestic agencies, as well as to practitioners. I also served as a Commissioner of the Antitrust Modernization Commission, created by Congress to evaluate U.S. antitrust laws. I have served as a consultant to the Department of Justice ("DOJ") and Federal Trade Commission ("FTC") on the Horizontal Merger Guidelines, as a general consultant to the Department of Justice and Federal Trade Commission on antitrust matters, as a member of the American Bar

Association Advisory Committee that advises the incoming President on antitrust policy, and as an advisor to the Bureau of the Census on the collection and interpretation of economic data.

4. I also am a Senior Managing Director of Compass Lexecon, a consulting firm that specializes in the application of economics to legal and regulatory issues and for which I served as President (of Lexecon) for several years. I have provided expert testimony before various U.S. state and federal courts, the U.S. Congress, a variety of state and federal regulatory agencies, and foreign tribunals. I have submitted testimony before the Surface Transportation Board ("STB") and the Interstate Commerce Commission ("ICC") in different proceedings, and provided expert testimony in litigation matters involving Class I railroads. My curriculum vitae, which includes a list of my publications and the last four years of my testifying experience, is attached as Attachment 1.

B. ASSIGNMENT

5. I have been asked to evaluate the competitive effects that could arise from Union Pacific Corporation's ("UP") proposed acquisition of Norfolk Southern Corporation ("NS") (collectively, "Applicants") (the "Proposed Transaction"). In particular, I have been asked to:

- Review, analyze, and respond to the views expressed by Applicants' economic experts, Dr. Bailey and Dr. Israel, as well as to relevant aspects of the analyses presented by Applicants' expert on traffic diversion studies, Mr. Hunt.[1]
- Analyze additional competitive effects that could result from the Proposed Transaction and that are not part of Applicants' submission.

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[1] Verified Statement Of Elizabeth M. Bailey, Ph.D., Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, September 4, 2026 (hereinafter, "Bailey VS").

Verified Statement of Mark A. Israel, Union Pacific Corporation, et al. – Control – Norfolk Southern Corporation, et al., STB Docket No. FD 36873, September 4, 2026 (hereinafter, "Israel VS").

Verified Statement of David T. Hunt, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, September 4, 2026 (hereinafter, "Hunt VS"). Mr. Hunt's assignment is to "provide an analysis and estimate of potential rail-to-rail and truck-to-rail diversions that could occur as a result of their merger." Hunt VS, p. 15. While I do not necessarily address all aspects of the analyses provided by Mr. Hunt, I do address certain aspects of his findings that Dr. Israel and Dr. Bailey rely on.

- Comment on the potential for certain remedies requested by BNSF to address negative competitive effects that could arise from the Proposed Transaction.

6. To carry out this assignment, I have relied on my years of experience studying the nature of competition, including prospective analyses of mergers. The materials that I and my staff have relied on in the preparation of this Verified Statement are listed in Attachment 2.

C. OVERVIEW OF THE PROPOSED TRANSACTION

7. On July 29, 2025, Union Pacific and Norfolk Southern announced their agreement to "create America's first transcontinental railroad," a combination that would "transform the U.S. supply chain" allowing for the connection of "over 50,000 route miles across 43 states from the East Coast to the West Coast."[2] The Proposed Transaction, first filed before the STB late in 2025, if approved, will see UP acquire control of the operations of NS and its rail carrier subsidiaries.[3]

1. The parties

8. UP is among the largest of the six Class I freight railroads serving shippers in the United States.[4] UP operates nearly 33,000 miles of rail routes across 23 states in the western portion of the country, serving Pacific and Gulf Coast ports in California, Texas, and Louisiana; major gateways such as Chicago and New Orleans along the Mississippi River; and important gateways on the Canadian and Mexican borders such as Eastport (ID) and Eagle Pass (TX).[5] UP transports a broad spectrum of freight loads, which include bulk commodities (32% of UP's 2024 freight revenue), industrial shipments (37%), and premium shipments such as intermodal and automobiles (31%).[6]

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[2] Union Pacific, "Union Pacific and Norfolk Southern to Create America's First Transcontinental Railroad," July 29, 2025, https://www.up.com/press-releases/growth/norfolk-southern-transcontinental-nr-250729.

[3] Decision, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, December 19, 2025.

[4] See Figure 1.

[5] Israel VS, ¶ 5; Union Pacific, "System Map," https://www.up.com/about-us/maps.

[6] Israel VS, ¶ 6.

9. NS is also among the largest Class I railroads in the United States, operating more than 19,000 miles of rail routes in the eastern portion of the country. NS serves 22 states and the District of Columbia, major gateways such as Chicago and New Orleans, and 43 ports in the Midwest and the Atlantic Coast (such as ports in Illinois, Ohio, New York, Norfolk, and those on the coast of Florida).[7] NS transports a broad spectrum of freight loads, which include merchandise traffic (62% of NS's 2024 railway operating revenue), coal (13%), and intermodal (25%).[8]

10. Figure 1 below presents operating statistics for all Class I railroads in the United States as calculated by Applicants' economics expert Dr. Bailey using 2024 data. If one were to calculate shares based on Dr. Bailey's railroad-specific and total figures for 2024, a combined UP/NS system would become the largest railroad in the United States, controlling 44% of carloads, 40% of tons, 44% of route miles, and 45% of gross revenues.[9]

[7] Norfolk Southern, "Company Overview," https://www.norfolksouthern.com/en/about-us/company-overview; Norfolk Southern, "Ports & International," https://www.norfolksouthern.com/en/ship-by-rail/our-rail-network/ports-international.

[8] Israel VS, ¶ 8.

[9] Like Dr. Bailey, I use "the term 'carloads' to refer to the total of loaded railcars plus loaded individual intermodal container units." Bailey VS, n. 13. Dr. Bailey's "Total" row in Exhibit 3 of her Verified Statement (row "Industry Total" in Figure 1) sums across the numbers reported for each individual railroad. Because of interlining, that means the same carloads and tons in interline movements are counted toward each of the railroads that participate in such movements. This explains differences between the 35.4M carloads (carloads plus intermodal containers) in Dr. Bailey's table and the roughly 25.2M carloads reported for the same year (2024) by the Association of American Railroads. Association of American Railroads, "AAR Reports Weekly Rail Traffic for the Week Ending December 28, 2024," January 3, 2025, https://www.aar.org/news/aar-reports-weekly-rail-traffic-for-the-week-ending-december-28-2024.

Figure 1: 2024 Statistics for Class I Railroads (from Dr. Bailey's Exhibit 3)

Railroad	Carloads (Thousands)	Tons (Thousands)	Mileage Operated (Thousands)	Gross Freight Revenue ($ Thousands)
UP	**8,334**	**451,217**	**33**	**$24,135,427**
NS	**7,094**	**320,045**	**19**	**$12,143,528**
BNSF	9,589	486,590	33	$24,126,994
CSX	6,190	342,916	20	$13,147,519
GTC (CN)	2,254	171,136	5	$3,457,229
SOO/KCSR (CPKC)	1,910	135,810	8	$3,561,929
Industry Total	**35,371**	**1,907,714**	**118**	**$80,572,625**
UP + NS Share of Total	***44%***	***40%***	***44%***	***45%***

Source: Bailey VS Workpapers.

11. Currently, UP and NS mainly connect at six primary interchange gateways (Chicago, St. Louis, Kansas City, Memphis, Shreveport, and New Orleans).[10] While in 2023 both carriers directly interchanged approximately 877,000 loaded carloads with one another, their combined presence in the railroad network is substantial.[11] In 2023, rail freight initiated or terminated in the United States moved across over {{[redacted]}} bidirectional "corridors" (origin and destination pairs), for a total of {{[redacted]}} carloads.[12] UP or NS shipped freight in over {{[redacted]}} of those corridors. The corridors in which UP or NS moved traffic account for approximately {{[redacted]}} carloads {{[redacted]}} in the rail network. That is, a combined UP/NS participates in corridors that move {{[redacted]}} in the U.S. See Figure 2.

[10] Bailey VS, ¶ 38, n. 27.

[11] Bailey VS, ¶ 48.

[12] Origin and destination defined at the level of Bureau of Economic Analysis' Economic Areas ("BEAs"). I provide more details about this geographic definition later. See n. 34.

Figure 2: UP or NS Participation in Corridors with Origin or Destination in the United States (2023) {{



}}

2. **The STB review process**

12. The STB's consideration of the merger or control of at least two Class I railroads is governed by the public interest criterion.[13] Mergers serve the public interest when "substantial and demonstrable gains in important public benefits — such as improved service and safety, enhanced competition, and greater economic efficiency — outweigh any anticompetitive effects, potential service disruptions, or other merger-related harms."[14] And, of course, to the extent that the STB can impose conditions that mitigate the harms yet preserve the benefits, the net benefits of the merger increase.

[13] Decision, Major Rail Consolidation Procedures, STB Docket No. EP 582 (Sub-No. 1), June 11, 2001 (hereinafter, "STB Rules"), §1180.1(b).

[14] STB Rules, §1180.1(c).

3. Applicants' arguments

13. Dr. Bailey and Dr. Israel, economic experts retained on behalf of Applicants, characterize the Proposed Transaction as a complementary "end-to-end," "vertical" merger.[15] Dr. Bailey analyzes horizontal competition, including competition between corridors and competition within corridors, and finds that "compared to the expected pro-competitive benefits of the proposed merger, there is limited scope for harm from the loss of horizontal competition between UP and NS."[16] Dr. Israel, in turn, similarly claims that "the combined vertical effects of the proposed merger of UP and NS are procompetitive, meaning that they will enhance competition in the rail industry, create downward pressure on price relative to the state of the world that would exist absent the merger, and benefit shippers in the form of greater investment, higher quality service, and a more efficient rail network."[17, 18]

II. SUMMARY OF OPINIONS

14. Based on the analysis presented in the remainder of this Verified Statement, I conclude that Applicants and their economic experts present no reliable economic evidence that the Proposed Transaction will be in the public interest. Moreover, competition and shippers on certain affected routes are likely to be harmed. More specifically, I find that:

- *Applicants substantially understate the potential for harm from a reduction in horizontal competition from the Proposed Transaction.* Applicants and their economic experts contend

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[15] Bailey VS, ¶¶ 16-17; Israel VS, ¶ 9.

[16] Bailey VS, ¶ 21. See also Bailey VS, ¶¶ 23-24.

[17] Israel VS, ¶ 13.

[18] Despite the fact that their economic experts identify essentially no harm from the Proposed Transaction, Applicants have committed to (i) implement "protections for shipper facilities currently served by UP and NS that would have no access to another Class I railroad in an unconditioned merger ('2-to-1' shipper facilities);" (ii) "keeping all existing gateways open for eligible traffic on commercially reasonable terms[;]" (iii) negotiate divestiture of shares in joint ventures such as TTX, PPU [Peoria and Pekin Union Railway], and TRRA [Terminal Railroad Association of St. Louis]; and (iv) implement the "Committed Gateway Pricing" program, a framework that "extend[s] the merger's benefits to more customers." Amended Railroad Control Application, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, September 4, 2026 (hereinafter, "Amended Railroad Control Application"), Vol. 1, pp. 13, 30-33, 91.

that because this is primarily an end-to-end transaction "with little horizontal overlap[,]" the scope for potential horizontal competitive harm is "limited."[19] I find that Applicants' experts' conclusions are based on analyses that rely on arbitrary choices about data selection, model implementation, and results presentation, all of which substantially understate the scope for potential harm. When I instead reasonably modify their analyses, I find that {{[redacted]}} in rail revenue could be potentially adversely impacted by a reduction in horizontal competition (see Sections III.A and III.B). Moreover, my finding is consistent with a result in Dr. Israel's own analysis (which he does not discuss in his Verified Statement but appears in his workpapers): rail rates are lower where more railroads serve either the destination or origin of a shipment. Furthermore, with reasonable corrections and refinements, Dr. Israel's own approach indicates a larger potential impact of the Proposed Transaction on shippers' rates due to a lessening of horizontal competition by as much as {{[redacted]}} of dollars per year (see Section III.C).

- *Applicants understate the risk of harm from the Proposed Transaction because they ignore the network nature of the railroad industry in their discussion of vertical foreclosure*. Dr. Israel claims the Proposed "end-to-end" Transaction will not harm competition because the main economic theories of vertical foreclosure are "ill-matched" to the railroad industry.[20] I demonstrate that Dr. Israel's discussion is based on his inconsistent views about the completeness of contracts in the industry, and that he (and Applicants) have ignored a key component: the negative externalities (and their effects on the railroad network) that the merger will have on rival railroads. Importantly, they do not discuss the fact that due to economies of scale and scope, which are featured prominently in the rail industry, volume losses on a given route can impact other connected routes. For example, when a loss of volume on a given route results in deterioration in service, there are negative externalities that can adversely affect competition and result in harm to shippers throughout the network, even on routes not directly related to those affected by the merger. (See Section IV).

[19] Bailey VS, ¶¶ 16, 21.

[20] Israel VS, ¶ 14.

- *The Proposed Transaction expands the range of opportunities for a combined UP/NS to increase rail rates paid by some shippers through tie-in sales or the adoption of UP's current pricing practices.* In Section V, I first explain that the Proposed Transaction can create new opportunities for a combined UP/NS to raise rail rates for shippers by using tie-in sales and bundling.[21] Second, I present economic evidence based on Dr. Israel's own analysis (which he does not discuss in his Verified Statement but appears in his workpapers) that shows that UP sets its rail rates {{[redacted]}} than NS does today, even after controlling for relevant shipment factors, implying a potential for rate "uplift" on NS shipments of {{[redacted]}}.[22] To the extent a combined UP/NS can tie currently independent UP and NS services or impose UP's pricing practices, the Proposed Transaction has the potential to harm shippers via an increase in the rates they pay. (See Section V).

- *Applicants' Committed Gateway Pricing (CGP) proposal does not enhance competition, has limited application, and its alleged welfare implications are derived from an economic model with meaningful shortcomings*. Applicants offer CGP, a program they argue will enhance competition and extend the benefits of the merger to shippers that otherwise would not be directly impacted. Despite the potential to benefit some shippers (through lower rail rates) at the expense of harm to others (through increased rail rates), CGP does not enhance competition because it does not add any new competitive option to eligible shippers. It is, instead, a form of benchmark rate regulation. I find that the CGP program and its alleged benefits suffer from multiple flaws. First, CGP has limited applicability ({{[redacted]}} of current interline traffic involving UP or NS) and limited net claimed benefits ({{[redacted]}}) in relation to the rail revenue associated with shippers subject to the program. Second, Dr. Israel's discussion and analysis of the welfare effects of CGP are unreliable given

[21] Economically, tie-in sales and bundling are closely related phenomena. Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization,* 4th edition, Pearson (2005) (hereinafter, "Carlton and Perloff (2005)"), pp. 321-322. For simplicity, in this Verified Statement I use the terms interchangeably.

[22] As I explain in Section V.B, a rate "uplift" results from imposing one merging party's rates on customers of the other merging party.

shortcomings in his underlying economic model, which is based on unrealistic assumptions. (See Section VI).

- *Applicants' estimates of the benefits of the Proposed Transaction are flawed and exaggerated.* Applicants claim the Proposed Transaction will generate substantial benefits for shippers and the economy overall. I demonstrate that several of the potential benefits are derived from flawed analyses that result in exaggerated outcomes. First, I demonstrate that Dr. Israel's estimates of the potential for downward pricing pressure from cost savings and/or the elimination of double marginalization ("EDM") are unreliable, as they are not robust to a reasonable modification. Second, I analyze two claims by Mr. Hunt (Applicants' expert in charge of the traffic diversion analysis). I explain why Mr. Hunt's claim that shippers will save approximately $3.5B when switching from truck to rail is limited to estimated cost savings but ignores that shippers that switch would be substituting for a lower quality product in terms of, at least, certain dimensions such as transit time. I also explain that Mr. Hunt's estimates of the diversion from truck to rail are likely overstated, derived from unsupported assumptions, and inconsistent with his own statements about substitution between rail and truck services. (See Section VII).

- *The Proposed Transaction could increase a combined UP/NS's ability to use the railcar joint venture TTX to harm competition*. TTX is a large railcar company that provides railcars and management services and is jointly owned by the six Class I railroads and Ferromex (FXE). In Section VIII, I explain how a combined UP/NS's majority ownership of TTX (or an increased share of ownership under remedies that have yet to be formally proposed) may allow a combined UP/NS to exercise control and make decisions regarding car usage, capacity, investments, and rates that favor a combined UP/NS over other TTX partners. As such, the Proposed Transaction could further lessen competition in the rail industry. (See Section VIII).

- *BNSF's requested conditions would address, at least to some extent, the potential for harm from the Proposed Transaction*. I discuss economic evidence and arguments related to three conditions for relief that BNSF is asking the STB to adopt in the event the Proposed Transaction is approved. First, I analyze economic evidence related to competitive conditions and the potential effects of the Proposed Transaction on rail traffic associated with

the Gulf Coast, for which I find noticeable areas of concern given the currently limited options shippers in this area have today. BNSF's proposal for a neutral switching railroad can mitigate those potential harms. Second, I discuss the economic merits of two global (i.e., not tied to a particular geography) conditions: BNSF's Open Access Condition ("OAC"), and BNSF's Interline Preservation Mechanism ("IPM") condition. Both proposals are designed to address, at least to some extent, potential merger-related harms throughout the network. They do so either by creating new competition where none exists (OAC), or by preserving competition through a guarantee of the availability of the same interline route alternatives shippers can currently rely on (IPM). (See Section IX).

III. APPLICANTS SUBSTANTIALLY UNDERSTATE THE POTENTIAL FOR HARM FROM A REDUCTION IN HORIZONTAL COMPETITION FROM THE PROPOSED TRANSACTION

15. It is commonly recognized across the STB, antitrust agencies, and the economic literature that reductions in horizontal competition can cause harm to consumers.[23] The analysis of horizontal competition that the Applicants' experts put forward understates the potential for harm to horizontal competition for a variety of reasons that I explain in this section.

16. The analysis of horizontal competition in prior railroad mergers has typically focused on competition "between corridors" (i.e., competition between destinations (for an origin), and competition between origins (for a destination)), and competition "within corridors" (i.e., competition within a given origin-destination pair). Applicants' economic experts, Dr. Bailey and Dr. Israel, report analyses of competition between and within corridors in their Verified

[23] Decision No. 44, Union Pacific Corporation, et al. – Control and Merger – Southern Pacific Rail Corporation, et al., STB Docket No. FD 32760, August 6, 1996 (hereinafter, "UPSP Decision"), p. 100 ("We evaluate whether effects are horizontal or vertical in nature or whether both types of effects are present. Horizontal effects occur where applicant carriers currently offer competing service within a defined market. These effects can range from loss of direct, head-to-head competition between two railroads serving the same origin/destination pair to loss of geographic competition between railroads, as would occur if each of the merging parties exclusively serves a different competing port from the same origin. Vertical effects occur where the merging parties connect end-to-end or form alternative routings for interline movements in which a single railroad controls a 'bottleneck' at origin or destination. The key test for competitive harm remains the same for both horizontal and vertical effects: will the merger result in increased rates or deteriorated service or both?" (notes omitted)).

Statements, claiming no or only *de minimis* harm from a potential reduction in horizontal competition. Their analyses understate the extent of potential harm from a reduction in horizontal competition for at least two reasons. First, they under-report areas of potential horizontal concern using a test or algorithm that is biased toward understating the number of identified areas of concern because of experts' arbitrary choices about data selection, model implementation, and results presentation. Second, even for those areas of potential horizontal concern they do identify, they dismiss them without proper empirical analysis.

17. As explained in this section, the net effect of Applicants' experts' choices is substantial, and once those choices are reasonably modified, potential harm to horizontal competition from the Proposed Transaction arises in more areas than Applicants' experts report. I first address Dr. Bailey's analysis of competition between corridors in Section III.A. I then address Dr. Bailey's and Dr. Israel's analyses of competition within corridors in Section III.B. In Section III.C, I note that Dr. Israel's own workpapers show substantial potential harm to shippers from lost horizontal competition. I further show that making reasonable refinements to his analysis would increase this potential harm by {{[redacted]}} per year in increased shipper rates.

18. Taken together, I find that Dr. Bailey and Dr. Israel have underestimated the true potential impact of the Proposed Transaction on horizontal competition. Not only do their analyses understate such risk, but also both experts have not presented in their Verified Statements any empirical measurement of the impact of reduced horizontal competition on rail rates. Instead, I empirically show that there is a reasonable expectation of considerable harm from the potential reduction of horizontal competition as a result of the Proposed Transaction.

A. CONTRARY TO ANALYSES PRESENTED BY DR. BAILEY, THE PROPOSED TRANSACTION HAS THE POTENTIAL TO HARM COMPETITION BETWEEN CORRIDORS

19. In this section, I describe how Dr. Bailey's approach to analyze competition between corridors understates the potential impact of the Proposed Transaction.[24] First, I show that reasonable modifications to Dr. Bailey's arbitrary choices in her 50/10 test would identify a

[24] Bailey VS, Section 4.4.1. Dr. Bailey notes that she runs this analysis to identify "potential horizontal competitive concerns." Bailey VS, ¶ 162.

larger set of areas exposed to a potential reduction in competition between corridors than the set she presents in her Verified Statement—{{[redacted]}} origin-commodity pairs and, separately, {{[redacted]}} destination-commodity pairs (as opposed to Dr. Bailey's 11 origin pairs and 22 destination pairs).[25] Second, I note that Dr. Bailey does not consider alternative structural presumptions that antitrust agencies rely on to identify potential competitive issues, an important omission considering that her finding of potential harm for competition between corridors is based solely on a structural presumption (her 50/10 test). Using an alternative structural presumption (based on the 2023 Merger Guidelines, guidelines that Dr. Bailey cites in some of her arguments), an even larger set of areas would be identified as potentially harmed by a reduction in horizontal competition: {{[redacted]}} pairs at origin and {{[redacted]}} pairs at destination.[26] Finally, I show that Dr. Bailey applies a flawed "critical loss analysis" ("CLA") test, leading her to wrongly dismiss the potential horizontal concerns that she does identify from a reduction of competition between corridors. I find that under reasonable modifications, Dr. Bailey's CLA test would find horizontal concern on rail traffic of nearly {{[redacted]}} at origin and {{[redacted]}} at destination, in contrast to Dr. Bailey's conclusion of zero.[27]

1. A summary of Dr. Bailey's approach to analyzing competition between corridors

20. Dr. Bailey bases her analysis of competition between corridors on approaches used by merging-parties' economists in prior merger proceedings.[28] As shown in Figure 3, Dr. Bailey's approach considers two different types of competition between corridors. *Competition between destinations (for an origin)* (left panel, referred to by Dr. Bailey as "destination competition") analyzes the ability of shippers at an *origin* to ship a commodity to alternative destinations (i.e., the focus of attention is an origin-commodity pair). *Competition between origins (for a*

[25] See Figure 5.

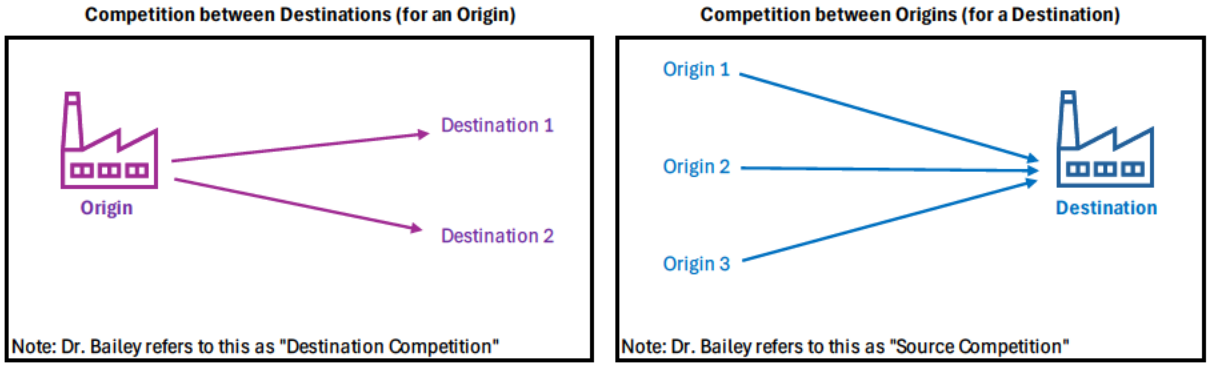
[26] See Figure 7; Bailey VS, Section 3.3.

[27] See Figure 10; Bailey VS, Exhibits 14 and 15.

[28] Bailey VS, ¶ 160 (citing Verified Statement of Christopher A. Vellturo, Ph.D., Canadian National Railway Company and Grand Trunk Corporation – Control – EJ&E West Company, STB Docket No. FD 35087, October 29, 2007 (hereinafter, "Vellturo VS") and Verified Statement of W. Robert Majure, Canadian Pacific Railway Limited, et al. – Control – Kansas City Southern, et al., STB Docket No. FD 36500, October 29, 2021 (hereinafter, "Majure VS")).

destination) (right panel, referred to by Dr. Bailey as "source competition") analyzes the ability of receivers at a *destination* to source a commodity from alternative origins (i.e., the focus of attention is a destination-commodity pair).[29]

Figure 3: Competition between Destinations (for an Origin) and Competition between Origins (for a Destination)



21. For both types of competition, Dr. Bailey's approach (which identifies zero potential areas of concern reported in her Verified Statement) proceeds in two steps:

- Step 1 – Dr. Bailey identifies origin-commodity pairs and destination-commodity pairs that meet a threshold known as the "50/10" test, which examines changes in shares from the Proposed Transaction for each pair.[30]
- Step 2 – Dr. Bailey applies her CLA test to any pairs of concern identified in Step 1. As I explain below, this step examines if there are additional options available to shippers and customers associated with the pairs identified in Step 1.[31]

22. As the set of railroads can differ at origin or termination due to interlining, Dr. Bailey's 50/10 test in Step 1 considers three separate traffic share measures (originating shares, terminating shares, and participating shares) for each origin-commodity pair as well as each

[29] Bailey VS, ¶ 158.

[30] Bailey VS, ¶ 160. I refer to Dr. Bailey's implementation of the 50/10 test as "Dr. Bailey's 50/10 test."

[31] Bailey VS, ¶ 160.

destination-commodity pair.[32] Dr. Bailey's 50/10 test identifies a pair as potentially subject to loss of geographic competition if, for any of the three types of shares mentioned above, (i) both UP and NS's individual shares exceed 10%, and (ii) the merger would result in a combined UP/NS featuring more than a 50% combined share.[33] Dr. Bailey's 50/10 test defines geographies at the level of Bureau of Economic Analysis' Economic Areas ("BEAs") and commodities at the

[32] The following example illustrates the calculation of originating, terminating, and participating shares for the analysis of competition between destinations (for an origin). Consider an origin O and a specific commodity. Currently, railroads A and C operate at O: (i) Railroad A ships 10 tons from O on a single-line to destination D1, and (ii) Railroad C ships 10 tons from O to destination D2 via an interline with railroad B (that is, railroad B terminates the shipment at D2). In this example, destinations D1 and D2 compete for origin O. Suppose I want to study the effect on competition between corridors for that commodity and origin O from a merger between railroads A and B.

Originating shares: Railroad A's originating share is 50% (10/20) and railroad B's is 0% (0/20);

Terminating shares: Railroad A's terminating share is 50% (10/20) and railroad B's is 50% (10/20);

Participating shares: Railroad A's participating share is 50% (10/20) and railroad B's is 50% (10/20).

[33] The participating screen adds one extra condition — the combined UP/NS participating share must be at least 10 percentage points higher than the maximum of UP's participating share and NS's participating share.

In the case of the example above, Dr. Bailey's 50/10 test would flag this origin-commodity pair as a potential concern due to a reduction in competition for origin O because it triggers both the terminating and participating screens.

level of the first four digits of the Standard Transportation Commodity Code ("STCC4").[34, 35, 36] Dr. Bailey calculates shares assuming total tonnages equal to those transported by rail as well as truck and barge ("non-rail").[37]

23. Continuing in Step 1, Dr. Bailey applies arbitrary choices to identify the areas of concern she reports in her Verified Statement, which have the effect of reducing the number of pairs she identifies as potentially suffering harm as a result of the transaction from her 50/10 test. After excluding certain commodities (those Dr. Bailey deems as "uninformative," intermodal, or automotive), she reports origin-commodity pairs or destination-commodity pairs if they are flagged by her 50/10 test for *each year* from 2019 to 2024 and are above a minimum volume size.[38] In all, she identifies 11 origin-commodity pairs (associated with {{[redacted]}} in 2023 rail

[34] "BEA" stands for Bureau of Economic Analysis' Economic Areas. BEA Economic Areas (also called "Business Economic Areas" by the STB) are geographic regions defined by the Bureau of Economic Analysis to "facilitate[] regional economic analysis." Generally, each BEA is a collection of "a single economic node and the surrounding counties that are economically related," grouped "based on commuting patterns and on newspaper circulation." Bureau of Economic Analysis, "Final Redefinition of the BEA Economic Areas," *Federal Register,* Vol. 60, No. 47, March 10, 1995: 13114-118, p. 13114.

[35] Railroads rely on STCC codes to classify the goods moved in carloads and containers. Railinc, "Standard Transportation Commodity Code," https://public.railinc.com/resources/standard-transportation-commodity-code ("The Standard Transportation Commodity Code (STCC) is a publication containing specific product information used on waybills and other shipping documents. A STCC code is a seven digit numeric code representing 38 commodity groupings. Assignment of a STCC Code is associated by a commodity description developed to conform with exact descriptions in freight transportation classifications of rail and motor carriers."). STCC4 refers to the first four digits of the STCC code. The first two digits indicate "Major Industry Groups," the third digit indicates "Minor Industry Groups," and the fourth digit indicates "Specific Industries" in the Product Class code. Railinc, "Standard Transportation Commodity Code: History and Background," https://public.railinc.com/sites/default/files/documents/STCCHistory.pdf, p. 2.

[36] For the analyses I present in this section, I adopt – yet do not necessarily endorse – Dr. Bailey's assumptions regarding geographic- and commodity-level aggregations.

[37] Bailey VS, ¶ 177 ("When assessing alternative destinations available to shippers and alternative origins available to receivers, non-rail modes are included. In addition, non-rail *volumes* for each commodity are included in the calculation of UP's and NS's shares for purposes of the 50/10 screens, as well as in the calculation of both the demand available to shippers (CLA 1) and the supply available to receivers (CLA 2)." (emphasis in original) (notes omitted)).

[38] Verified Statement Of Elizabeth M. Bailey, Ph.D., Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, December 17, 2025 (hereinafter, "Bailey December 2025 VS"), ¶ 118

revenue) and 22 destination-commodity pairs (associated with {{[redacted]}} in 2023 rail revenue).[39] In Step 2, Dr. Bailey subsequently unflags these pairs using her CLA test, concluding there is "limited scope for competitive harm[.]"[40]

24. Absent from Dr. Bailey's analysis of competition between corridors is an examination of how her findings would change under reasonable modifications to her arbitrary choices. I show below that reasonable modifications to these choices would identify more areas of potential harm than she reports in her Verified Statement. Dr. Bailey likewise does not offer any subsequent analysis of the impact of the Proposed Transaction on rates from a reduction in horizontal competition.

2. Dr. Bailey understates the potential harm from a reduction of competition between corridors given the arbitrary choices she makes in the first step of her analysis

25. In this Section III.A.2, I demonstrate that reasonable modifications to Dr. Bailey's arbitrary choices for her Step 1 would identify a larger number of origin-commodity pairs and destination-commodity pairs with the potential to be harmed by a reduction of horizontal competition than she identifies in her Verified Statement—increasing the 11 origin-commodity pairs associated with {{[redacted]}} that Dr. Bailey reports to as many as {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} in 2023 rail revenue (and increasing the 22 destination-commodity pairs associated with {{[redacted]}} she reports to {{[redacted]}} destination-commodity pairs

("Some commodity codes cover many miscellaneous and potentially unrelated products. These are excluded from the analysis because the results would be uninformative."). See also Bailey VS, ¶¶ 140 ("STB and Interstate Commerce Commission ('ICC') decisions have stated that there is 'effective competition' in the transport of these categories of traffic."), 176 ("Therefore, only origin-commodity pairs that are associated with potential harm consistently through 2019 to 2024 are flagged in this analysis[.]").

[39] See Figure 5.

[40] Bailey VS, ¶ 24. See also Bailey VS, ¶ 167. Dr. Bailey also presents results for her 50/10 test and CLA where she considers STCC7 commodities instead of STCC4 commodities. Bailey VS, Exhibit 16. For competition between origins (for a destination), Dr. Bailey's Exhibit 16 STCC7 results are comparable to her Exhibit 15 STCC4 results for her 50/10 test and CLA (flagging {{[redacted]}} carloads for CLA). For competition between destinations (for an origin), Dr. Bailey's Exhibit 16 STCC7 results show more carloads than her Exhibit 14 STCC4 results for her 50/10 test and even flag carloads for her CLA. I report additional analyses for BEA-STCC7 pairs in Appendix A.

associated with {{[redacted]}} in 2023 rail revenue).[41] Additionally, I consider alternative structural presumptions – based on the 2023 Merger Guidelines – to the one Dr. Bailey relies on, which further increases this set to {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue.[42]

(a) Treatment of non-rail (truck and barge) shipments and data restrictions in Dr. Bailey's 50/10 test cause her to underestimate potential harms in her first step

26. Dr. Bailey's reported results for the first step of her analysis (Dr. Bailey's 50/10 test) hinge on two types of arbitrary choices: (1) her decision to include non-rail modes of transportation in her calculation of shares for each commodity, and (2) the data restrictions she applies. I now discuss each.

(1) Dr. Bailey's inclusion of non-rail traffic in her between corridor analysis lacks justification

27. Dr. Bailey's 50/10 test rests on a structural presumption based on increases in concentration as a result of the Proposed Transaction. Antitrust agencies in the United States often rely on structural presumptions of this sort as a first pass to determine whether a merger is presumably illegal.[43] For such purposes, the FTC and the DOJ offer well-delineated guidance and procedures for the determination of which products (i.e., rail or truck) to include in the "relevant market" over which to calculate shares.[44] In contrast, Dr. Bailey calculates UP/NS shares in her first step as a percentage of rail *and* non-rail volumes (instead of using only rail volumes), offering no market definition or competitive effects analysis supporting her decision to treat rail and truck in the same market for every product or distance shipped.[45] This is important

[41] See Figure 5.

[42] See Figure 7.

[43] U.S. Department of Justice and the Federal Trade Commission, *Merger Guidelines*, December 18, 2023, https://www.ftc.gov/system/files/ftc_gov/pdf/2023_merger_guidelines_final_12.18.2023.pdf (hereinafter, "2023 Merger Guidelines"), § 2.1.

[44] 2023 Merger Guidelines, §§ 4.3, 4.4.

[45] STB Rules, pp. 58-59 ("***§ 1180.7(a):*** *... Applicants must identify and address relevant markets and issues, and provide additional information as requested by the Board on markets and issues that warrant further study.*" (emphasis in original)). Dr. Bailey also provides "market shares" that only include rail volume. Bailey VS, ¶ 196, Appendix D1 and D2.

because the extent of competition between truck and rail may be different based on commodity and distance shipped. In their 2009 Report before the STB, Christensen Associates noted that during the 2000s railroads were able to raise their rates relative to truck rates as a result of cost advantages and improved service offerings.[46] Moreover, Christensen Associates found that for "long-distance bulk commodity hauls, [they] would not expect trucks to be a constraining mode for railroad pricing."[47] Similarly, the trucking industry has recognized that truck and rail can act as complements rather than substitutes, with the American Trucking Associations' chief economist noting that "[t]rucks and trains act more as complements than substitutes. The reality is they compete for only a small sliver of freight[.]"[48]

28. The only support Dr. Bailey provides for this choice is that her implementation "is similar to consideration of trucking in prior railroad mergers[,]" failing to acknowledge that in the prior merger proceedings she references, applicants' experts did not appear to include non-rail volumes in the calculation of shares for their 50/10 test.[49] Dr. Bailey's inclusion of non-rail data (in particular, truck data) across all commodities and distances is unsupported, as she has not offered economic analysis showing that truck competes with all rail shipments for all commodities or provided any market definition analysis.

29. Even if it were correct to include non-rail freight when measuring market shares (which is not correct, absent empirical justification), an additional reason why Dr. Bailey's inclusion of

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[46] Laurits R. Christensen Associates, Inc., *Volume 2: Analysis of Competition, Capacity, and Service Quality*, November 2009 (hereinafter, "Christensen Report 2009"), p. 8-49 (Highlighting that railroads have improved their networks and service, leading to "higher velocity and better service and reliability. ... Rail transportation often costs less[.] … As truck rates rise, the railroads can raise their rates in conjunction with the truckers without the risk of losing their relative attractiveness." (citing John G. Larkin and Daniel S. Taylor*, Railroads: Striving to Drive Improved Return on Invested Capital*, Legg Mason Wood Walker, Inc. (2004), p. 31.)).

[47] Christensen Report 2009, pp. 11-09, 11-10.

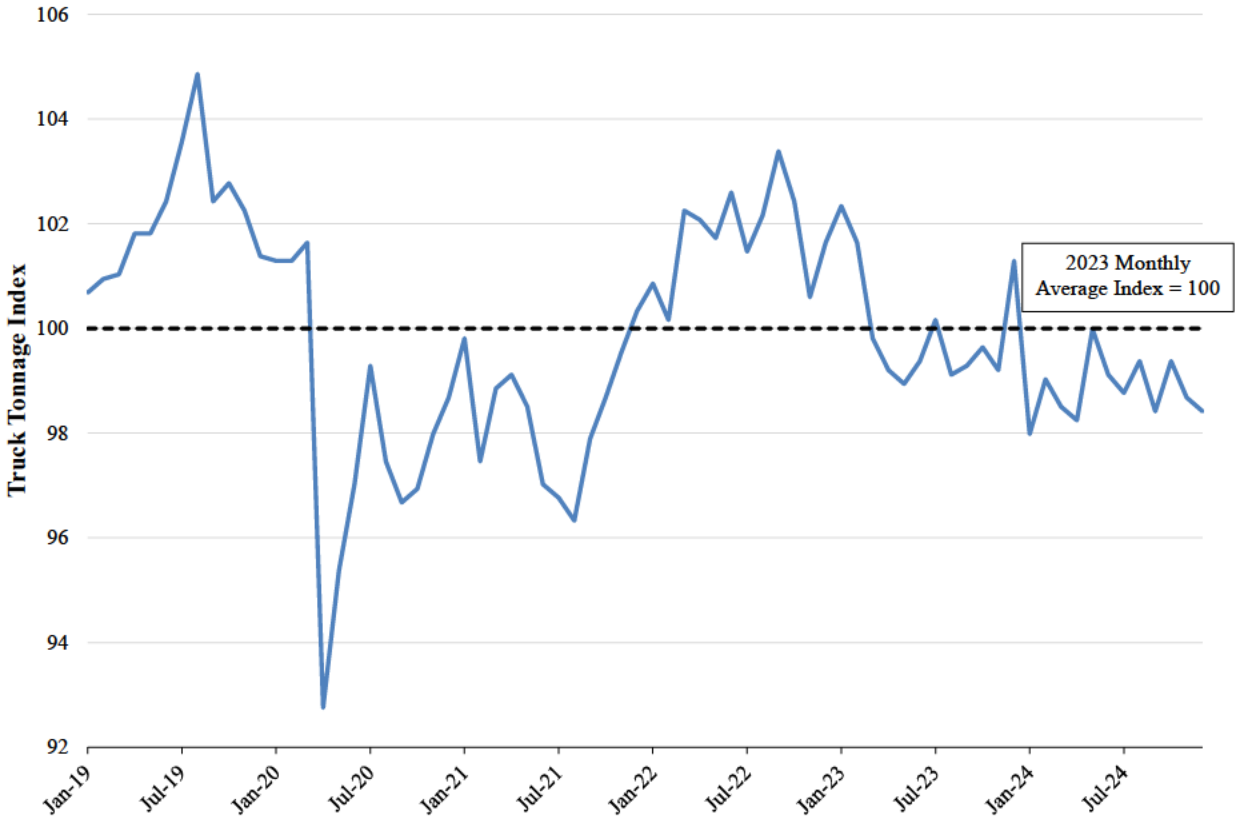
[48] Casey Quinlan, "Union Pacific-Norfolk Southern Rail Merger Faces Resistance," *Transport Topics*, September 11, 2026, https://www.ttnews.com/articles/groups-oppose-rail-merger.

[49] Bailey VS, n. 151. See also Bailey VS, ¶ 166. Neither Dr. Majure nor Dr. Vellturo, the experts that Dr. Bailey cites, appears to have relied on non-rail data for the calculation of 50/10-related shares in their analyses. For example, Dr. Vellturo notes that he "applied the screen to rail traffic only, not taking into account truck competition." Vellturo VS, p. 117.

non-rail data is problematic is that there are mismatches between the granularity of the non-rail data available to her and the conditions she considers for her 50/10 test.

- While the rail data Dr. Bailey relies on report commodity disaggregation as granular as the STCC7 level, the Transearch non-rail data that she uses only report non-rail data at the level of STCC4 commodity. Thus, Dr. Bailey cannot precisely determine whether a particular commodity (STCC7) is shipped on truck, and therefore limits her reported pairs to the STCC4 aggregation.
- While Dr. Bailey requires her 50/10 test to be passed in every year from 2019-2024, she only has access to non-rail data for the year 2023. For each year from 2019 to 2022 and in 2024, she assumes that non-rail volumes are the same as those observed in the 2023 data. Applying 2023 non-rail tonnages uniformly across all years to compute shares may result in inaccurate results that render the analysis of any year other than 2023 unreliable. This is particularly evident given truck volumes in the U.S. varied considerably from 2019 to 2024, most notably during years associated with the COVID-19 pandemic (2020-2021), as shown in Figure 4.

Figure 4: U.S. Truck Tonnage Index 2019-2024



Source: U.S. Bureau of Transportation Statistics, Truck Tonnage Index, retrieved from the Federal Reserve Bank of St. Louis, available at https://fred.stlouisfed.org/series/TRUCKD11.

(2) Dr. Bailey's data restrictions in her analysis of competition between corridors lack an economic basis

30. Dr. Bailey's approach imposes three separate data restrictions that cause her to underestimate the number of origin-commodity pairs and destination-commodity pairs she identifies in Step 1 as having potential competitive harms.

- *Dr. Bailey's all-years restriction:* Dr. Bailey reports only origin-commodity and destination-commodity pairs that trigger at least one of the three 50/10 test thresholds (originating, participating, or terminating) in all years between 2019 and 2024.[50] She provides no justification for this choice. Her procedure, for example, excludes situations where she

[50] Bailey VS, ¶ 176.

identifies potential for competitive harm in 5 of the 6 years but provides no rationale for why this does not raise potential competitive concerns.[51]

- *Dr. Bailey's intermodal and automotive commodity restriction:* Dr. Bailey excludes intermodal and automotive commodities (even after incorporating truck traffic in the volumes used to calculate shares), not based on any economic analysis but rather based on past statements from the STB and ICC.[52] I understand that these past statements refer to the ability of the STB to regulate rail rates for these commodities, rather than establishing a prescription for the review of reductions in horizontal competition in merger proceedings.[53, 54]

- *Dr. Bailey's "uninformative" commodity restriction:* Dr. Bailey excludes commodities she considers "uninformative" without a clear economic explanation.[55] If she views her commodity categorization (4-digit STCC) as too broad a categorization for an analysis, this

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[51] See Appendix Figure 1, where I show the effect of relaxing Dr. Bailey's requirement that a given origin-commodity or destination-commodity pair triggers Dr. Bailey's 50/10 test (as she applies it) for all six years in 2019-2024. If Dr. Bailey had based her analysis on only 2023 shares, she would report {{[redacted]}} more origin-commodity pairs associated with {{[redacted]}} in 2023 rail revenue, and {{[redacted]}} more destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue than reported in her Verified Statement. See my workpapers.

[52] Bailey VS, ¶¶ 140, 179-180.

[53] The STB rules state that the potential effects of a transaction on intermodal competition are relevant to the review process. STB Rules, pp. 58-59 ("***§ 1180.7(a):*** *For major and significant transactions, applicants shall submit impact analyses (exhibit 12) describing the impacts of the proposed transaction — both adverse and beneficial — on inter- and intramodal competition with respect to freight surface transportation in the regions affected and on the provision of essential services by applicants and other carriers. … Applicants must identify and address relevant markets and issues, and provide additional information as requested by the Board on markets and issues that warrant further study.*" (emphasis in original)). Moreover, Dr. Bailey did not rely on this restriction in her earlier submission which reports results for her between corridor analysis inclusive of intermodal and automotive commodities. Bailey December 2025 VS, ¶ 128, Exhibits 16 and 17. In addition, neither Dr. Majure nor Dr. Vellturo appears to exclude intermodal shipments and automotive commodities in their respective implementations of their 50/10 tests. Majure VS, ¶ 80; Vellturo VS, p. 117.

[54] Dr. Bailey does not report {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} in 2023 rail revenue and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue in her Verified Statement solely because of her intermodal and automotive restriction. See my workpapers.

[55] Bailey December 2025 VS, ¶ 118. See also Bailey VS, ¶ 174. I note again that neither Dr. Vellturo nor Dr. Majure appears to exclude these commodity groupings in their respective implementations of their 50/10 tests.

would indicate a mismatch between the methodology she employs and what Dr. Bailey thinks is the proper level at which the analysis should be conducted.[56]

31. Below, I demonstrate that reasonable modifications to these data restrictions result in a larger set of origin- and destination-commodity pairs of potential concern than Dr. Bailey identifies in her 50/10 test.[57]

(b) Once Dr. Bailey's arbitrary choices are reasonably modified, Dr. Bailey's own 50/10 test identifies a larger set of traffic subject to potential harm from a reduction of competition between corridors

32. Dr. Bailey does not report what outcomes her methodology would find under reasonable modifications to the arbitrary choices she makes. A methodology that, under reasonable modifications to assumptions or implementation choices, results in very different answers to the same question is not reliable. I now show that this is the case for Dr. Bailey's first step, as reasonable modifications of her arbitrary choices result in her 50/10 test identifying a larger number of origin-commodity and destination-commodity pairs (and associated rail revenues) than she reports in her Verified Statement.

33. This finding is summarized in Figure 5 below, which shows 2023 rail revenue associated with pairs flagged by Dr. Bailey's 50/10 test, for both cases in which non-rail traffic is included in the calculation of shares (left panel) and instances in which it is not (right panel).[58] Specifically, the figure shows (i) pairs flagged under Dr. Bailey's arbitrary choices (blue

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[56] Dr. Bailey does not report {{[redacted]}} origin-commodity pair associated with {{[redacted]}} in 2023 rail revenue and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue in her Verified Statement solely because of her "uninformative" commodity restriction. See my workpapers.

[57] I note that modifying Dr. Bailey's data restrictions is consistent with the STB's Decision that "require[s] Applicants to make … excluded or filtered data from their worksheets available for inspection by the Board and other persons authorized to view them under this case's protective order." Decision, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, August 18, 2026, p. 5.

[58] When I include non-rail data for intermodal commodities, I use Dr. Bailey's classifications of intermodal shipments in Transearch. However, Transearch's documentation states there are potential issues for intermodal shipments in its data when summing tons as shipments are "triple counted." S&P Global, "Transearch 2023 Modelling Methodology Documentation," April 16, 2025, pp. 10-11. See also Bailey VS workpapers {{[redacted]}}. My estimates that include only rail data in shares do not have these potential issues as they do not rely on Transearch data.

segments), (ii) pairs that Dr. Bailey's 50/10 test would flag for further review absent Dr. Bailey's commodity data restrictions (dark orange), and (iii) pairs that would also be identified by an alternative "all-years-combined" approach that addresses shortcomings in Dr. Bailey's use of 2023 non-rail data and restrictive all-years requirement for her test (light orange).[59]

[59] My "all-years-combined" approach adjusts Dr. Bailey's 50/10 test in two ways. First, rather than assume that the 2023 non-rail volumes are fixed across years for each origin-commodity and destination-commodity pair, I scale non-rail volumes so that they are proportional to the observed rail volumes in each year at the origin-commodity or destination-commodity level, using the 2023 ratio of rail to non-rail volumes at that level as the basis for scaling. Second, rather than discard data because an origin-commodity or destination-commodity pair is not screened in certain years as Dr. Bailey does, I aggregate rail carriers' and non-rail volumes across all years in which a given origin-commodity or destination-commodity pair is observed. I then compute shares and conduct Dr. Bailey's 50/10 test using these "all-years-combined" volumes.

Figure 5: Dr. Bailey's 50/10 Test of Competition Between Corridors with Reasonable Modifications {{



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34. Figure 5 shows as follows:

- Consider the left panel of the figure, in which non-rail data are included in the calculation of shares. When I remove Dr. Bailey's intermodal and automotive, and "uninformative" commodity restrictions, Dr. Bailey's 50/10 test would identify {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue (as opposed to Dr. Bailey's {{[redacted]}} and {{[redacted]}}). When I modify Dr. Bailey's 50/10 test to use the "all-years-combined" approach, I would identify {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue.
    - *An example: {{[redacted]}}* This OBEA-STCC4 pair is not flagged

by Dr. Bailey's Step 1 because it involves a commodity she excludes. Had she considered this commodity, her Step 1 would not have flagged the pair because it does not trigger her 50/10 test in one year (2020). Using the all-years-combined test, I find UP's and NS's terminating shares (with non-rail data) are {{[redacted]}}, respectively, which results in this pair being flagged as a potential concern.[60]

- Consider the right panel of the figure, in which non-rail data are excluded from the calculation of shares. In this case, Dr. Bailey's 50/10 test (under her own data restrictions) would find {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue. Further removing Dr. Bailey's commodity restrictions, Dr. Bailey's 50/10 test would find {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}}. Lastly, if I modify Dr. Bailey's 50/10 test to use the "all-years-combined" approach, I would find {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue.[61] While I do not suggest that rail only would constrain a shipper's option for every single commodity, these results show that Dr. Bailey's blanket inclusion of non-rail data allows her to dismiss many areas of potential concern without proper justification.[62]

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[60] See my workpapers.

[61] When commodities are analyzed at the STCC7 level, I find that removing Dr. Bailey's data restrictions and using my "all-years-combined" test results in a total of {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} in 2023 rail revenue flagged for competition between destinations (for an origin) and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue flagged for competition between origins (for a destination). See Appendix Figure 2.

[62] Dr. Bailey excludes origin/destination-commodity pairs from her analysis based on a "minimum size restriction[,]" as she claims this was done in "prior rail merger analyses" and "to account for small sample size." Bailey VS, ¶¶ 103, 104. While experts in prior merger matters before the STB employed a similar data restriction, they relied primarily on the STB's Confidential Carload Waybill Sample ("CCWS") – a dataset that is based on only a sample of shipments and that is different from Dr. Bailey's combination of the CCWS and "full traffic tape data provided by all six Class I freight railroads[.]" Bailey VS, ¶¶ 93-94, Majure VS, n. 56. Moreover, the CCWS does not record the relevant full route for Rule 11 shipments. Majure VS, n. 51. I find that because of her minimum size restriction Dr. Bailey does not report {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} in 2023 rail revenue and {{[redacted]}}

- *An example: {{* [redacted] }} This DBEA-STCC4 pair is not flagged by Dr. Bailey's Step 1 (had she limited to rail data) because it does not trigger the 50/10 presumption in 2024. Using the all-years-combined test, I find UP's and NS's terminating shares (based on rail data) to be {{ [redacted] }}, respectively, which results in this pair being flagged as a potential concern.[63]

(c) Dr. Bailey's structural presumption of harm ignores the 2023 Merger Guidelines

35. Dr. Bailey's 50/10 test is based on the reliance on this type of analysis by economists on behalf of merging parties in previous merger proceedings before the STB.[64] However, Dr. Bailey does not offer any discussion of how robust her results are to the use of alternative structural presumptions.

36. For example, Dr. Bailey references the 2023 Merger Guidelines in her Verified Statement.[65] The 2023 Merger Guidelines, issued by the Antitrust Division of the Department of Justice and the Federal Trade Commission in 2023, offer an alternative test to determine whether increases in concentration from a proposed transaction would trigger a "presumption of illegality."[66] Antitrust agencies in merger analysis routinely employ this test using a "[s]tructural [p]resumption" based on a share-based concentration metric known as the Herfindahl-Hirschman Index (HHI).[67] As I have discussed elsewhere, structural presumptions constitute, at best, a

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destination-commodity pairs associated with {{ [redacted] }} in 2023 rail revenue in her Verified Statement. See my workpapers.

[63] If non-rail traffic were included in the calculation of shares, the all-years-combined non-rail share would be {{ [redacted] }}. See my workpapers.

[64] Bailey VS, ¶ 160.

[65] Bailey VS, Section 3.3.

[66] 2023 Merger Guidelines, § 2.1.

[67] 2023 Merger Guidelines, § 2.1 (The HHI is a measure of market concentration calculated by summing the squared market shares of all independent firms in an industry. The index ranges from near 0 (perfectly competitive market with many small firms) to 10,000 (pure monopoly with one firm

starting point in the assessment that should be followed up by rigorous economic analysis to determine whether harm is possible.[68] Dr. Bailey neither proposes a rigorous economic analysis nor tests the robustness of her findings to alternative structural presumptions like the ones in the 2023 Merger Guidelines.

37. To illustrate differences between the HHI-based structural presumption test in the 2023 Merger Guidelines ("HHI-based test") and Dr. Bailey's 50/10 test, consider the case of shipments of {{[redacted]}}. For this origin-commodity pair, UP's and NS's terminating shares in 2023 are {{[redacted]}}, respectively. As such, for that year this pair would be flagged by the HHI-based test (based on terminating shares) because the post-merger HHI exceeds 1,800 and the change in HHI exceeds 100, but it is not flagged by Dr. Bailey's 50/10 test as UP's share is below 10%.[69]

38. Figure 6 below presents the number of origin-commodity and destination-commodity pairs and associated 2023 rail revenue that trigger Dr. Bailey's 50/10 and HHI-based test in every year in the 2019-2024 period for the data that Dr. Bailey analyzes. For origin-commodity pairs, the HHI-based test adds {{[redacted]}} to the {{[redacted]}} that Dr. Bailey's 50/10 test flags and she reports in her Verified Statement. For destination-commodity pairs, the HHI-based test adds {{[redacted]

capturing the entire market) and is widely used in antitrust analysis. The 2023 Merger Guidelines presume that a merger that increases HHI by more than 100 points and that results in a post-merger market in which either the merged entity has a greater than 30% share or the market HHI is above 1,800 will "substantially lessen competition or tend to create a monopoly.").

[68] Dennis W. Carlton, "The 2023 Merger Guidelines: A Critical Assessment," *Review of Industrial Organization*, Vol. 65, No. 1 (2024): 129-145.

[69] These shares include non-rail data. Dr. Bailey does not flag this origin-commodity pair in her Step 1 as it does not pass Dr. Bailey's 50/10 test (either for originating, participating, or terminating shares) for 2023, but the HHI-based test (with non-rail data) flags this pair in 2023 or when using the all-years-combined test. See my workpapers. For originating and terminating shares, Dr. Bailey's 50/10 test finds fewer instances of potential harm than the HHI test because any shares that trigger Dr. Bailey's 50/10 test would also trigger the HHI-based presumption in the 2023 Merger Guidelines. This is because (i) Dr. Bailey's 50/10 test asks for a combined share of 50%, which translates into a post-merger HHI of at least 2,500, which exceeds the 1,800 points threshold in the structural presumption of the 2023 Merger Guidelines; and (ii) Dr. Bailey's 50/10 test asks for the minimum share of the standalone merging parties to be 10%, which implies the minimum change in HHI as a result of the merger is equal to 800 points (= 2 x 10 x 40), well above the 100 points threshold in the structural presumption of the 2023 Merger Guidelines.

[redacted]}} to the {{[redacted]}} that Dr. Bailey's 50/10 test flags and she reports in her Verified Statement.

Figure 6: Commodity-Geography Pairs that Trigger Dr. Bailey's 50/10-Based and HHI-Based Tests in Every Year in 2019-2024 in Dr. Bailey's Data {{



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39. Figure 7 reports an analogous set of results to those I presented for Dr. Bailey's 50/10 test with reasonable modifications in Figure 5, but instead uses the HHI-based test.[70]

[70] Further details on my adaptation of this HHI-based test among railroads are provided in Appendix A. I note that when calculating the HHI, I adopt a conservative treatment of non-rail and shortline shares (i.e., one biased toward a finding of low concentration) by assuming they do not contribute to the HHI. This is equivalent to assuming the existence of large numbers of non-rail and shortline carriers. I also include any pairs identified by the 50/10 participation flag in this method.

Figure 7: HHI-Based Test of Competition Between Corridors Using Alternative Assumptions {{



}}

40. Figure 7 shows:

- Even when adopting Dr. Bailey's full set of arbitrary choices, the HHI-based test identifies origin-commodity pairs associated with {{ }} and destination-commodity pairs associated with {{ }} in 2023 rail revenue. This is a substantial increase from what Dr. Bailey reports based on her 50/10 test, where she finds potential areas of concern with revenue of {{ }} for origin-commodity pairs and {{ }} for destination-commodity pairs.[71]

[71] See Figure 5 for Dr. Bailey's 50/10 test results.

- *An example: {{[redacted]}}* This OBEA-STCC4 pair is not flagged by Dr. Bailey's Step 1, but it is flagged by the HHI-based test (with non-rail data), which is triggered in all six years. For example, in 2023 the post-merger HHI (based on terminating shares with non-rail data) is {{[redacted]}} (i.e., over the 1,800 threshold) and the change in HHI is approximately {{[redacted]}} (i.e., over the threshold of 100).[72]

- In total, when I reasonably modify all of Dr. Bailey's arbitrary choices (i.e., when I remove Dr. Bailey's data restrictions, only consider rail traffic for shares calculations, and run using the "all-years-combined" approach), the HHI-based test triggers the presumption in the 2023 Merger Guidelines for {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue.
  - *An example: {{[redacted]}}* This DBEA-STCC4 pair is not flagged by Dr. Bailey's Step 1, but it is flagged by the HHI-based, all-years-combined test because in that case the post-merger HHI (based on originating shares using only rail data) is {{[redacted]}} (i.e., over the 1,800 threshold) and the change in HHI is {{[redacted]}} (i.e., over the threshold of 100).[73]

41. These results are simply the outcome of tests that implement reasonable modifications to Dr. Bailey's choices about how to handle the data and what structural presumption to use. Figure 7 makes clear that reasonable alterations of Dr. Bailey's choices modify her findings and greatly increase the potential for competitive harm that she would identify as Step 1 in her

[72] UP and NS's terminating shares (inclusive of non-rail data) are {{[redacted]}}, respectively. The change in HHI is then calculated as {{[redacted]}}, which is approximately equal to {{[redacted]}}. See my workpapers.

[73] UP and NS's originating shares (limited to rail data) are {{[redacted]}}, respectively. The change in HHI is then calculated as {{[redacted]}}, which is equal to {{[redacted]}}. If one were to include non-rail traffic in the calculation of shares, the all-years-combined non-rail share would be {{[redacted]}}. See my workpapers.

analysis. This implies that her results are not robust to reasonable modifications to Step 1 of her analysis.

3. Dr. Bailey's "Critical Loss Analysis" (Step 2) of competition between corridors is flawed and not robust to reasonable modifications

42. The second step of Dr. Bailey's analysis involves studying "the ability of shippers and receivers to avoid potential price increases" for the origin-commodity or destination-commodity pairs that she identifies in Step 1.[74] She does this by means of her own "version" of a "Critical Loss Analysis" ("CLA").[75] In this Section III.A.3, I describe Dr. Bailey's CLA test, show that the conclusions she draws are based on unsupported assumptions, and her results are not robust to reasonable modifications.

(a) A summary of Dr. Bailey's CLA test of competition between corridors

43. CLA is a methodology relied upon by antitrust practitioners to measure the incentives a firm or group of firms has to impose profitable price increases.[76] Dr. Bailey's CLA test involves, for each origin-commodity or destination-commodity pair flagged by Dr. Bailey's 50/10 test, comparing an "affected volume" (i.e., the volume of traffic directly associated with the origin-commodity or destination-commodity pair under study) and an "available volume" (i.e., the volume of available demand and supply to which shippers and receivers could divert – per Dr.

[74] Bailey VS, ¶ 167.

[75] Bailey VS, Section 4.4.2.2.

[76] 2023 Merger Guidelines, pp. 43-44 ("Critical loss analysis compares the magnitude of the two offsetting effects resulting from the worsening of terms. The 'critical loss' is defined as the number of lost unit sales that would leave profits unchanged. The 'predicted loss' is defined as the number of unit sales that the hypothetical monopolist is predicted to lose due to the worsening of terms. The worsening of terms raises the hypothetical monopolist's profits if the predicted loss is less than the critical loss."). Dr. Majure bases his CLA work on analysis presented by Dr. Vellturo in two rail merger matters (CN-WCR and CN-EJ&E) before the STB in the early 2000s. Majure VS, ¶¶ 92-93 and associated notes. See also Joseph Farrell and Carl Shapiro, "Improving Critical Loss Analysis," *The Antitrust Source*, February 2008 (hereinafter, "Farrell and Shapiro (2008)"), pp. 3-4.

Bailey's assumption – in the event of a potential exercise of market power by the merged carrier).[77]

44. Given her assumptions, Dr. Bailey's CLA test "unflag[s]" a pair flagged by her 50/10 test if the available volume is greater than the affected volume for either of the two versions of the CLA test (alternatively stated, a pair is unflagged if the ratio of affected to available volume is smaller than one).[78] For either competition between origins (for a destination) or competition between destinations (for an origin), this comparison is done from both the perspective of shippers and receivers, in what Dr. Bailey defines as "CLA 1" and "CLA 2," respectively.[79] As I show below, Dr. Bailey's CLA method is flawed, and her implementation leads to unreasonable results.

(b) Dr. Bailey's CLA test of competition between corridors is conceptually flawed, and not robust to reasonable modifications in implementation choices

45. Despite CLA being used by economists from merging parties and antitrust agencies alike, the economic literature recognizes the potential for misusing the critical loss analysis.[80] This is because of the "potentially misleading" argument that high profit margins make a hypothetical price increase unprofitable as any lost sales would have a large adverse impact on profits. In other words, high margins indicate that the critical loss is small. However, the economic literature has also recognized that this is an incomplete version of the story because high margins

[77] Bailey VS, Appendix G, ¶¶ 15-22. See also Bailey VS, ¶¶ 168 ("[T]he shipper's ability to switch destinations can also protect them from the impact of changes by the combined railroad if (1) there are destinations that shippers can reach without relying on the combined railroad and (2) those destinations have sufficiently high demand for that commodity relative to the volume shipped from the origin-commodity pair in question."); 170 ("Receivers are protected from the impact of changes by the combined railroad if (1) there are alternative origins receivers can access without relying on the combined railroad and (2) those alternative origins have a sufficiently large supply of the commodity in question.").

[78] Bailey VS, Appendix G, ¶¶ 13, 18.

[79] Bailey VS, ¶¶ 168, 170.

[80] Michael L. Katz and Carl Shapiro, "Critical Loss: Let's Tell the Whole Story," *Antitrust Magazine*, Vol. 17, No. 2 (2003): 49-56 (hereinafter, "Katz and Shapiro (2003)"); Daniel P. O'Brien and Abraham L. Wickelgren, "A Critical Analysis of Critical Loss Analysis," *Antitrust Law Journal*, Vol. 71, No. 1 (2003): 161-184.

also indicate that sales volumes are actually not price sensitive, which in turn implies the actual loss from a price increase is small.[81]

46. Dr. Bailey's CLA test suffers from this tension as it implicitly relies on an assumption of rail profit margins equal to 50%.[82] Such a high margin indicates that the alternatives available in the pre-merger world can only constrain market power to a certain extent. But in Dr. Bailey's CLA test, those are the same alternatives that make a hypothetical price increase unprofitable for the merged entity. In other words, Dr. Bailey ignores that the economic forces that cannot constrain margins below 50% pre-merger may be unable to constrain the merged firm from raising prices profitably.

47. Even ignoring the fact that her CLA test is flawed, Dr. Bailey's implementation choices in her CLA test yield available volumes of unrealistically large magnitude, rendering her conclusions unreliable. To illustrate, consider Figure 8 and Figure 9, which show the full set of metrics underlying Dr. Bailey's CLA test outcomes. These include: (i) the affected-to-available volume ratio; (ii) the total available volume as a share of all traffic observed for the commodity; (iii) the available volume in which UP/NS participate as a share of the total available rail volume; and (iv) the available volume by UP/NS and non-rail modes as a share of all traffic observed for the commodity.

[81] Katz and Shapiro (2003), p. 50.

[82] I describe in more detail the (unstated) assumptions Dr. Bailey relies on for her CLA test in Appendix A, Section A.2.

Figure 8: Expanded Bailey VS, Exhibit 14 – Competition between Destinations (for an Origin) {{



}}

Figure 9: Expanded Bailey VS, Exhibit 15 – Competition between Origins (for a Destination) {{



}}

48. Notably, the affected-to-available volume ratios are, in most cases, small and far below 1 for both the "Supply (CLA 2)" test for competition between destinations (for an origin) (Figure 8) and the "Demand (CLA 1)" test for competition between origins (for a destination) (Figure

9).[83] As I describe below, the construction of the available volume figures biases Dr. Bailey's CLA test towards finding extremely small ratios.

- For origin-commodity and destination-commodity pairs that Dr. Bailey identifies in her Verified Statement, available volumes can represent {{[redacted]}} of the rail and non-rail traffic moved in the United States for a given commodity.[84] These figures imply that receivers and shippers could turn to nearly the entire national market as potential alternative sources of supply and demand in order to defeat a potential rate increase on the affected traffic.[85] As a practical matter, it is unlikely – and Dr. Bailey provides no evidence in support – that all customers would have ready access to so many alternatives. A test that effectively assumes its answer cannot be viewed as a reliable assessment of customers' ability to avoid a rate increase by the merged carrier.

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[83] Recall that a flagged origin-commodity or destination-commodity pair is unflagged by Dr. Bailey's CLA test if the affected-to-available volume is less than one for at least one CLA test.

[84] As can be observed in the "Supply (CLA 2)" version of the test for competition between destinations (for an origin) (lower panel of Figure 8) and the "Demand (CLA 1)" test for competition between origins (for a destination) (upper panel of Figure 9), in {{[redacted]}} of the {{[redacted]}} origin- and destination-commodity pairs Dr. Bailey flags for further review the available volume is {{[redacted]}} of the total nationwide traffic for the commodity in question. And in the {{[redacted]}} remaining cases those ratios are {{[redacted]}}.

[85] Bailey VS, Appendix G, ¶ 17. For example, consider shipments of Flour or Other Grain Mill Products (STCC4 2041) out of Wichita, KS-OK (BEA 122), flagged by Dr. Bailey's 50/10 screen for competition between destinations (for an origin). Dr. Bailey finds that rail shipments of this commodity terminate nationwide in {{[redacted]}} destination BEAs, and {{[redacted]}} of these receive shipments originating from Wichita. Across those {{[redacted]}} destination BEAs, there are {{[redacted]}} alternative origins that ship the commodity to these destinations via means that are independent of UP or NS. There are a total of {{[redacted]}} destination BEAs that receive flour from these alternative origins (out of the {{[redacted]}} destinations that receive the commodity nationwide). Dr. Bailey would then claim that all shipments from these alternative origins to the {{[redacted]}} destinations constitute the available supply for shippers in Wichita.

{{[redacted]}} See my workpapers.

- UP/NS have {{[redacted]}} share of the rail "available volume," despite the fact that this quantity is supposed to be a measure of shippers' and receivers' ability to avoid using the merged carrier. Across all four of Dr. Bailey's CLA tests, Figure 8 and Figure 9 show that UP/NS traffic makes up, in aggregate, {{[redacted]}} of the share of the rail available volume. This implies that when considering what rail alternative customers have to defeat a hypothetical increase in rail rates by the merged entity, Dr. Bailey considers available rail tons that are currently handled by UP or NS and that represent, on aggregate, {{[redacted]}} of the available rail tons as alternatives to using UP/NS.
- Dr. Bailey counts traffic carried by non-rail modes in the "available volume," without offering a discussion of how it would be possible for affected rail customers to switch to truck or barge for all commodities to defeat an attempt to increase rates by the merged entity. Figure 8 and Figure 9 show that the share of available volume accounted for by either non-rail or UP/NS traffic is, in aggregate, {{[redacted]}}. That is, {{[redacted]}} of the traffic that Dr. Bailey identifies as available alternatives to the traffic affected by the merger is either currently shipped by UP or NS, or is shipped by non-rail modes, which may not be directly substitutable for rail.[86]

(c) Reasonable modifications to Dr. Bailey's flawed CLA test of competition between corridors would identify rail traffic associated with origin-commodity and destination-commodity pairs of potential concern

49. Even ignoring that Dr. Bailey's CLA test is flawed, I show in Figure 10 that reasonable modifications to her CLA test would identify more potential harms from a reduction in

[86] Dr. Bailey only includes non-rail tonnage in the available volume but not in the affected volume, thereby making it easier for an origin-commodity or destination-commodity pair to be unflagged by the CLA test. Dr. Bailey provides no justification for her inclusion of truck in her consideration of available volume for all commodities. Bailey VS, Appendix G, ¶¶ 15-17; Bailey VS workpapers {{[redacted]}}. Including only rail traffic in the available volume would be consistent with the approaches described by Dr. Majure to calculate "volume available" and Dr. Vellturo to calculate "Direct Divertible Capacity[,]" in their respective merger proceedings. Majure VS, Exhibits 18 and 19; Vellturo VS, p. 171. In the CN-WCR proceeding, "truck-based divertible capacity" is treated by Dr. Vellturo "as an additional consideration" separate from the divertible capacity from rail; in other words, Dr. Vellturo does not appear to combine truck and rail as components of the same divertible capacity measure. See Vellturo VS, p. 121, Exhibit 4.

competition between corridors than Dr. Bailey identifies in her Verified Statement. These reasonable modifications to Dr. Bailey's CLA test consider the set of traffic available to shippers or receivers that is currently handled by rail carriers other than UP and NS.[87] When applied to the full set of pairs I identify by the HHI-based test in Figure 7 above, Dr. Bailey's CLA test with reasonable modifications would find {{[redacted]}} in 2023 rail revenues ({{[redacted]}} pairs) for competition between destinations (for an origin), and {{[redacted]}} in 2023 rail revenues ({{[redacted]}} pairs) for competition between origins (for a destination) for which Dr. Bailey would not be able to rule out horizontal harm.[88] This contrasts with the zero OBEA-STCC4 and DBEA-STCC4 pairs found by Dr. Bailey's CLA test.[89]

[87] I exclude non-rail traffic from the available volume when limiting to rail options. Vellturo VS, n. 44. I also exclude UP/NS traffic from the available volume and keep only UP/NS in the affected volume. Dr. Vellturo's calculation of critical loss (which uses the affected volume) appears to limit to the merging carriers' traffic for the origin-commodity or destination-commodity pairs under study. Vellturo VS, pp. 96-97.

[88] A version of this figure that uses STCC7 instead of STCC4 is reported in Appendix Figure 4. Additionally, a version of this figure that applies Dr. Bailey's CLA test with reasonable modifications to pairs flagged from Dr. Bailey's 50/10 test with reasonable modifications is reported in Appendix Figure 5.

[89] I also consider a version of the CLA test that does not limit to UP/NS traffic in the definition of the affected volume, which aligns with the work of Dr. Majure in the CPKC proceeding. Majure VS, Exhibits 18 and 19. In that case, I find the test fails to unflag {{[redacted]}} in 2023 rail revenues ({{[redacted]}} pairs) for competition between destinations (for an origin), and {{[redacted]}} in 2023 rail revenues ({{[redacted]}} pairs) for competition between origins (for a destination). See Appendix Figure 6.

Figure 10: Dr. Bailey's CLA Test for Competition Between Corridors with Reasonable Modifications (Applied to Pairs Flagged from HHI-Based Test) {{



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- *An example: {{* }} This OBEA-STCC4 pair features an affected volume of approximately {{ }} tons and available volumes (after excluding UP/NS traffic but still including non-rail options) of {{ }} tons for shippers (all from truck) and of {{ }} tons for receivers (almost all from truck). Because the affected volume is larger than both measures of available volume, this origin-commodity pair cannot be discarded by Dr. Bailey's CLA tests (Step 2).[90]

B. WHEN PROPERLY EXAMINED, APPLICANTS' ANALYSES SHOW THAT THE PROPOSED TRANSACTION WILL RAISE MORE POSSIBILITIES OF HARM TO COMPETITION WITHIN CORRIDORS THAN THEY ACKNOWLEDGE

50. In addition to Dr. Bailey's analysis of competition between corridors, both Dr. Bailey and Dr. Israel examine competition within corridors. The analysis of competition "within corridors" differs from that of "between corridor" (or geographic) competition in that it examines the alternative options available to shippers of all commodities to move their products via rail freight

[90] See my workpapers.

from a given origin to a given destination (i.e., within a "corridor").[91] Options are defined by "routes," which in turn are defined by different combinations of railroads providing service in that corridor. Within a route, railroads transport those commodities along "segments."[92]

51. Dr. Bailey and Dr. Israel analyze competition within corridors using different approaches.[93] To illustrate their different approaches, consider the corridor between Columbia, MO and New York, NY that is served by a UP-CSXT route (i.e., UP serves the first segment at origin and then connects to CSXT, which serves the second segment to destination).[94]

- The only additional route that serves this corridor is an "NS" single-line route. UP and NS are thus considered by both Dr. Israel and Dr. Bailey to overlap at origin. Dr. Bailey would analyze this corridor (as a 2-to-1, given the overlap at origin), and Dr. Israel would ignore it entirely because UP and NS serve the same segment of the movement (its origin).
- If, instead, the only additional route serving this corridor were a "CPKC-NS" (with CPKC at origin and NS at destination), UP and NS would serve different ends of the same corridor. Dr. Israel would analyze this corridor (as a 2-to-1), and Dr. Bailey would ignore it entirely because UP and NS do not overlap on any segments of the movement.

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[91] Both Dr. Bailey and Dr. Israel analyze competition within corridors considering all traffic (i.e., regardless of commodity) moved from an origin BEA to a destination BEA. Bailey VS, ¶ 127 ("For example, if a route is a viable option for one commodity, then it is a viable option for other commodities when the focus is linehaul service between BEAs. Using all commodities to assess competition within a corridor is consistent with analyses in prior transactions."). Dr. Bailey defines "routings" as including railroad combinations and interchanges between two points. Bailey VS, ¶ 125.

[92] Bailey VS, ¶ 120. For example, corridor O-D may be served by two routes: (i) a single-line route served by RR1; and (ii) an interline route served by RR2 and RR3, connecting at interchange point I, and for which RR2 serves the segment O-I while RR3 serves the segment I-D.

[93] Dr. Israel's approach is limited to the analysis of corridors in which he claims UP and NS serve "different legs of the movement[,]" and focuses on "independent routes[.]" Israel VS, ¶ 78. Dr. Bailey's approach, instead, "analyzes horizontal competition to transport freight along the same segment of specific corridors." Bailey VS, ¶ 120. Dr. Bailey admits her analysis is "a separate and distinct inquiry from an examination of the loss of independent options that was used in some prior railroad mergers." Dr. Bailey notes that during the CPKC merger proceeding, "two competing options were defined as 'independent' if they do not have any carriers in common." Bailey VS, ¶ 153.

[94] See my workpapers.

52. Although the approaches to analyze competition within corridors offered by Dr. Bailey and Dr. Israel differ, they follow similar steps. First, an algorithm is combined with arbitrary choices to identify potential corridors of concern. Second, both experts conclude these corridors do not raise a competitive concern because it is possible to identify "viable" and "feasible" routes that are not observed in their data sample.[95]

53. In this Section III.B, I describe each of Dr. Bailey's and Dr. Israel's approaches and identify issues with their arbitrary choices and algorithms. I explain that their arguments for ignoring competitive concerns on the corridors they do identify are flawed. Finally, I show that an alternative, reasonable approach to the identification of corridors for which shippers will lose routes with at least one independent option results in a larger set of corridors at risk than the one identified by Applicants' experts. In total, this alternative approach identifies {{[redacted]}} corridors associated with {{[redacted]}} in 2023 rail revenue that would be reduced to having two or fewer routes with at least one independent option as a result of the Proposed Transaction—a significantly larger number than the 15 corridors Dr. Bailey identifies and the 74 corridors Dr. Israel identifies (which together account for {{[redacted]}} in 2023 rail revenue).[96] These results highlight the need for further work to analyze the potential impact of the Proposed Transaction on competition within corridors. Applicants' experts appear to have not undertaken such a step because the deficiencies in their analyses led them to conclude erroneously that there is no potential for harm to competition.

1. Dr. Bailey's approach understates the extent of potential harm to competition within corridors

54. Dr. Bailey's approach considers whether there would be "competitive harm from a reduction in the number of railroads operating on overlapping segments of the corridor[.]"[97] Her analysis first finds 15 corridors as potentially subject to loss of competitive options, all of them

[95] Israel VS, ¶ 83; Bailey VS, ¶ 150.

[96] The analysis is limited to corridors with at least one carload per day from 2019 to 2024, aligning with Dr. Bailey's and Dr. Israel's analyses. See Figure 12; Bailey VS, Exhibit 12; Israel VS, Appendix D, Tables D-1 and D-2. Dr. Bailey and Dr. Israel's corridors, as reported in their Verified Statements, do not overlap. Israel VS, n. 37. See Appendix Figure 7, Appendix Figure 8, and Appendix Figure 9 for the number of corridors with less than one carload per day from 2019 to 2024.

[97] Bailey VS, ¶ 23.

labeled as 3-to-2s.[98] To dismiss any concern with these 15 corridors, Dr. Bailey further examines whether railroads other than UP and NS could combine to create new routes and concludes that they could and that, as a result, there is no competitive concern.[99]

55. In this Section III.B.1, I first summarize Dr. Bailey's approach. I then explain how the arbitrary choices she adopts without proper justification result in an understatement of the possible harm to competition within corridors under her own algorithm. I lastly criticize the justification she uses for dismissing competitive concerns.

(a) A summary of Dr. Bailey's approach to analyzing competition within corridors

56. Dr. Bailey's approach to the analysis of competition within corridors defines a corridor as bidirectional BEA pairs (i.e., the two endpoints of a given shipment) comprising at most three segments (the two endpoints and, in the case of options that include three (or more) railroads, a bridge). For example, as UP and NS both ship from St. Louis, MO to Savannah, GA, Dr. Bailey flags an overlap on the St. Louis segment.[100] To identify the set of alternative routes (i.e., railroad combinations) associated with each corridor, Dr. Bailey relies on waybill data from 2019 to 2024, from which she excludes entire corridors using arbitrary restrictions, which I analyze below.[101]

57. Dr. Bailey's approach consists of two steps. The first step (Step 1) uses an algorithm that "provisionally" flags a corridor as potentially adversely affected by the merger "if UP and NS are the only two railroads that both operate at the same end of the corridor or are two of only three that do so[,]" or if "UP and NS both operate as a bridge between the end segments of the

[98] Bailey VS, Exhibit 12, ¶ 132.

[99] Bailey VS, Section 4.3.4(5).

[100] When counting the number of railroads in a segment, a single-line railroad is treated as the origin and terminating railroad (but not the bridge railroad) in the route, and thus the maximum number of railroads in a given segment is seven (all six Class I railroads and all non-Class I railroads treated as one combined railroad). Dr. Bailey considers any railroad that does not originate or terminate a shipment as a bridge railroad.

[101] Bailey VS, ¶ 127.

same three-part route along the BEA-BEA corridor."[102] More precisely, in Dr. Bailey's algorithm:

- Corridors in which only one segment experiences a loss of competitive options are labeled based on the presence of alternatives in that segment (e.g., if a corridor is a 2-to-2 at origin, a 1-to-1 at bridge, and a 2-to-1 at termination, then it is defined as a 2-to-1).[103]
- Corridors in which multiple segments experience a loss of competitive options are labeled based on the affected segment with a minimum presence of post-merger options (e.g., a corridor that is a 3-to-2 at origin, a 2-to-1 at bridge, and a 1-to-1 at termination, is defined as 2-to-1).
- Dr. Bailey does not consider corridors in which no segment experiences a loss of competitive options (e.g., Dr. Bailey does not consider a corridor that is a 3-to-3 at origin, a 2-to-2 at bridge, and a 1-to-1 at termination).

58. In addition to the algorithm, Dr. Bailey's first step also applies a series of arbitrary data restrictions that limit the universe of corridors to the 15 (3-to-2) corridors she reports in her Verified Statement, which are associated with {{[redacted]}} in 2023 rail revenue.[104]

59. Dr. Bailey's second step (Step 2) involves determining whether further analysis of the corridors identified in her Step 1 justifies her dismissing any concerns. For each of her reported 15 corridors, Dr. Bailey analyzes the available traffic data to construct new interline options that do not involve UP and NS (and that she has not previously found relevant across six years of waybill data), but that shippers in that corridor could theoretically rely on as an option if the

[102] Bailey VS, ¶¶ 128, 129.

[103] As a hypothetical example, suppose that the waybill data identify two routes that moved any kind of commodity between BEA 1 and BEA 2 in the 2019-2024 period: (1) CPKC-BNSF-NS and (2) UP single-line. In this case, Dr. Bailey would define the origin railroads as CPKC and UP, bridge railroad as BNSF, and the terminating railroads as NS and UP. Under Dr. Bailey's algorithm this corridor would be a 2-to-2 at origin (CPKC/UP), a 1-to-1 at bridge (BNSF), and a 2-to-1 at termination (UP/NS). The corridor would then be defined as a 2-to-1 corridor because at least one segment of the corridor experiences a loss in independent routes (2-to-1 at termination).

[104] See Appendix Figure 7.

Proposed Transaction were to cause a reduction in competition.[105] Dr. Bailey then concludes that there is little risk of harm to competition within the 15 corridors identified in her first step.[106]

(b) Dr. Bailey's reported results in Step 1 understate the extent of potential harm to competition within corridors

60. As a result of the data restrictions Dr. Bailey applies to her Step 1, she identifies only 15 corridors as potentially exposed to harm from a reduction of competition within corridors. I show that when I make reasonable modifications to these restrictions, the resulting set of Step 1-corridors that her own methodology would identify for further review would be substantially larger than the 15 corridors she reports in her Verified Statement.

61. In her Step 1, Dr. Bailey excludes from reporting in her Verified Statement certain corridors based on geographic location and commodity:

- Dr. Bailey excludes corridors traversing the Kansas City – St. Louis segment, noting that (i) BNSF, CPKC, NS, and UP compete on the Kansas City and St. Louis segment and (ii) all six Class I railroads can interchange at St. Louis any type of traffic with each other through TRRA—a Class III railroad that is owned by all Class I carriers except for CPKC.[107] Dr. Bailey's explanation for excluding these corridors ignores revealed preferences of shippers. For example, Dr. Bailey finds that shippers from Philadelphia to Kansas City today use NS (single-line), CSXT-UP, NS-UP, NS-BNSF, and CSXT-BNSF.[108] Dr. Bailey then assumes that because CSXT could connect with CPKC in St. Louis, a combination involving CSXT and CPKC is a viable competitive option on this corridor, even though shippers do not use CPKC on this corridor today.[109] Moreover, that all six Class I railroads can interchange via TRRA does not mitigate concerns for these corridors in light of the fact that a combined

[105] Bailey VS, ¶¶ 150-151.

[106] Bailey VS, ¶ 130.

[107] Bailey VS, Section 4.3.(4). Dr. Bailey does not report {{[redacted]}} (3-to-2 and 2-to-1) corridors that have approximately {{[redacted]}} in 2023 revenue in her Verified Statement as a result of her Kansas City - St. Louis segment restriction. See my workpapers.

[108] Bailey VS, ¶ 147. See my workpapers.

[109] Bailey VS, ¶ 147.

UP/NS would be the largest shareholder of TRRA if the application is approved without changes, something that Dr. Bailey does not mention or discuss.[110]

- Dr. Bailey excludes corridors where overlaps will occur on bridge segments as she indicates there is no competitive concern, even though her algorithm identifies these corridors.[111] While she does not provide an explanation for each of these excluded corridors, she notes that, for example, the corridor from Orlando, FL to Nuevo Leon, Mexico does not trigger a competitive concern (despite showing an overlap on a bridge segment that her algorithm flags as a 2-to-1) because she claims "UP handles traffic to the west of the Mississippi river, while NS handles traffic to the east of the Mississippi river[.]"[112] However, NS and UP are options used on two different routes within the corridor, and thus any shipper on these two routes in the future would only have one option (the merged carrier) to complete the middle portion of the shipment.
- Dr. Bailey also does not report "corridors that have less than 365 carloads after excluding intermodal shipments, automotive shipments, automotive shipments, and commodities for which truck and water non-rail volume accounts for 50 percent or more of the combined freight tonnage" through those corridors.[113] This is an arbitrary restriction because her analysis of competition within corridors is otherwise agnostic with respect to the type of commodities shipped in the corridor.[114] Even assuming that the shipments on these corridors face direct competition with

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[110] Applicants' First Submission in Response to Decision No. 21, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, July 7, 2026 (hereinafter, "Applicants' First Response to Decision No. 21"), p. 5 (a combined UP/NS would own 57.13% (42.84% + 14.29%) of TRRA based on current ownership structure).

[111] Bailey VS, ¶ 129. Dr. Bailey does not report the 2-to-1 {{[redacted]}} corridor ({{[redacted]}} in 2023 rail revenue) or the 2-to-1 {{[redacted]}} corridor (approximately {{[redacted]}} in 2023 rail revenue) using this bridge restriction. See my workpapers.

[112] Bailey VS, n. 116. Dr. Bailey identifies the CSXT-UP-FXE route and FEC-NS-CPKC route.

[113] Bailey VS, n. 126. Dr. Bailey bases this restriction on only 2023 data. Bailey VS Workpapers. Dr. Bailey does not report {{[redacted]}} (3-to-2 and 2-to-1) corridors that have over {{[redacted]}} in 2023 revenue in her Verified Statement using this commodity restriction. See my workpapers.

[114] Bailey VS, ¶ 127 ("Using all commodities to assess competition within a corridor is consistent with analyses in prior transactions.").

non-rail modes of transportation, shippers rely on these corridors for various commodities, so the Proposed Transaction can have an effect on these commodities.[115]

62. When I make reasonable modifications to Dr. Bailey's arbitrary choices, I find that Dr. Bailey's algorithm identifies {{[redacted]}} 3-to-2 and 2-to-1 corridors (accounting for over {{[redacted]}} in 2023 rail revenue) in which there would be harm from a potential loss of competition within corridors.[116] These results represent {{[redacted]}} than those Dr. Bailey reports in her Verified Statement: 15 3-to-2 corridors associated with {{[redacted]}} in 2023 rail revenue (and no 2-to-1 corridors).[117]

(c) Step 2 of Dr. Bailey's analysis of competition within corridors rules out competitive concerns based on an analysis that lacks an economic basis

63. Step 2 of Dr. Bailey's analysis of competition within corridors—in which she dismisses competitive concerns in the corridors identified in her Step 1—is flawed for several reasons.[118] First, Dr. Bailey claims that hypothetical routes are now viable competitive alternatives even though her analysis does not consider them as competitive options in *six* years of comprehensive waybill data. Second, Dr. Bailey offers these hypothetical interline routings as competitive alternatives, but such a view is in direct tension with her discussion about how interlining is

[115] For example, Dr. Bailey excludes the {{[redacted]}} corridor even though it shipped {{[redacted]}} carloads in 2023, with over {{[redacted]}} of the revenue on this corridor from commodities other than intermodal, automotive, and those she finds have 50% or more non-rail. See my workpapers.

[116] See Appendix Figure 7. I also note that Dr. Bailey's results, in general, understate any potential loss of competition within corridor because her methodology does not consider the loss of routes that have at least one independent option, including where UP and NS operate on different ends of a corridor. See Section III.B.3.

[117] See Appendix Figure 7; Bailey VS, ¶ 132, Exhibit 12. Dr. Bailey does not report corridors in which her algorithm would find a reduction in competition to three or more options, but Dr. Majure, CPKC's expert in the CPKC proceeding, reported overlaps not only in instances of 4-to-3 but also others such as 5-to-4 reductions. Majure VS, Exhibit 4, ¶ 70. I also note that Dr. Bailey excludes corridors in her Verified Statement where shippers ship, on average, less than one carload per day from 2019 to 2024. Bailey VS, ¶ 103. For example, Dr. Bailey does not report the {{[redacted]}} corridor as a 3-to-2, even though it shipped more than one carload per day from 2022 to 2024. See my workpapers.

[118] Bailey VS, Section 4.3.4(5).

"generally fragile[.]"[119] Third, to the extent any of her hypothetical routings are viable options, presumably they were viable before the Proposed Transaction; hence, these hypothetical routings do not solve any problems with regard to a *reduction in competition*. For example, if Dr. Bailey adds a single viable route to a 2-to-1 corridor, her algorithm would then shift this corridor to a 3-to-2, and it would still see a reduction in competition post-merger.

2. Dr. Israel's approach understates the extent of potential harm to competition within corridors

64. Similar to Dr. Bailey, Dr. Israel's analysis of competition within corridors relies on a two-step approach. First, Dr. Israel runs an algorithm to identify 74 corridors where the Proposed Transaction may harm competition within corridors (Step 1). Second, Dr. Israel dismisses concerns with these 74 corridors by examining whether railroads other than UP and NS could combine to create new interline routes (Step 2).

65. In this section, I first summarize Dr. Israel's approach and findings. Next, I discuss ways in which Dr. Israel's approach is lacking. Lastly, I analyze the justification he uses for dismissing competitive concerns in the corridors he identifies.

(a) A summary of Dr. Israel's approach to analyze competition within corridors

66. Step 1 in Dr. Israel's approach identifies a corridor as potentially subject to loss of competition if the Proposed Transaction reduces the number of "independent routes" in that

[119] Bailey VS, ¶¶ 70-71 ("For two independent railroads to successfully operate an interline rail service, they must coordinate the movement of a single shipment across distinct, but connected networks. A shipment originating on one railroad's network must be transferred at an interchange point, handled according to agreed-upon procedures, and transferred to the second railroad's network (often where it is handled again) prior to reaching its final destination. The train must move over the network subject to congestion and competing traffic. At the interchange, the cars must be set out on designated tracks, categorized, and accepted by the receiving railroad in a timely fashion. The receiving railroad must incorporate those cars into its operating plan, re-sort the cars if needed, and form the new outbound train before final dispatch. At each step, the railroads must make coordinated decisions despite uncertain and highly unpredictable operating conditions (*complexity*); they must rely on assets and operating choices that are largely outside of the railroad's control (*asset-specificity*); and they must implement real-time adjustments to ensure that trains remain on schedule (*adaptability*). It is for these reasons that alliances, partnerships, and other joint pricing arrangements, while they do sometimes occur, are generally fragile and prone to inefficiency." (emphasis in original) (notes omitted)).

corridor.[120] A corridor is defined as a bidirectional origin and destination BEA pair from the combined 2019-2024 waybill data, and each corridor's "routes" are defined as sequences of (bidirectional) major carrier rail segments.[121] Dr. Israel defines the set of "independent routes" within a corridor as those that share no other Class I carriers with other routes in the set.[122] This first step identifies 74 corridors as potentially facing loss of independent routes due to the Proposed Transaction, which are associated with {{[redacted]}} in 2023 rail revenue.[123]

67. After identifying the 74 corridors, in his second step Dr. Israel examines these routes and concludes that each has additional "viable alternative routes that depend on currently used rail segments that meet at established gateways[,]" and that no impact should be expected because railroads have the ability to connect and form new routes.[124]

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[120] Israel VS, ¶ 81. Dr. Israel considers all six major Class I carriers and FXE in his analyses. Israel VS, ¶ 80, Appendix D, ¶ 9. Thus, in Dr. Israel's analysis, corridors can have a minimum of one independent route (where either every route shares at least one Class I carrier that is involved in at least one other route, or only one route was observed from 2019 to 2024) and a maximum of six independent routes (where each Class I carrier has a single-line route; FXE single-line traffic is not observed as the analysis does not consider movements that start and end within Mexico).

[121] Israel VS, ¶ 79. Dr. Israel claims his methodology is "based on and consistent with the method used in CPKC's merger proceeding." Israel VS, ¶ 79.

[122] Israel VS, ¶ 79.

[123] See Appendix Figure 8; Israel VS, ¶ 81, Appendix D, ¶ 1. Like Dr. Bailey, Dr. Israel does not report corridors in which his algorithm would find a reduction in competition to three or more options, but Dr. Majure, CPKC's expert in the CPKC proceeding, reported overlaps not only in instances of 4-to-3 but also others such as 5-to-4 reductions. Majure VS, ¶ 70. Like Dr. Bailey, Dr. Israel excludes corridors in his Verified Statement where shippers ship, on average, less than one carload per day from 2019 to 2024. Israel VS, n. 38. For example, Dr. Israel does not report the {{[redacted]}} corridor that his algorithm flags as a 2-to-1 because of this restriction, even though it shipped {{[redacted]}} carloads in 2019 and {{[redacted]}} carloads in 2024. See my workpapers.

[124] Israel VS, ¶ 85. As an example, Dr. Israel's first step algorithmically identifies the {{[redacted]}} corridor as one with a loss of independent routes. His second step determines that such reduction is of no concern because it would be "viable" for {{[redacted]}} to offer up a new route connecting these two geographies through {{[redacted]}}. Israel VS, Appendix D, Table D-3, ¶ 6; Israel VS, ¶ 85. Dr. Israel says he cannot find any independent links between two of his 74 corridors: Indianapolis, IN-IL to Springfield, IL-MO and Birmingham, AL to Little Rock-North Little Rock, AR. But he says that these will not lose an independent route given some other railroads may be able to service them. For example, Dr. Israel claims that CN would enter the Indianapolis, IN-IL to Springfield, IL-MO corridor by linking with two other short-line railroads as CN does not provide any movements today in that corridor. Israel VS, Appendix D, Section V.

(b) Step 1 of Dr. Israel's methodology to analyze competition within corridors does not consider the impact of the Proposed Transaction on all shippers' alternatives within a corridor

68. In this Section III.B.2(b), I explain how Dr. Israel's methodology to analyze competition within corridors does not consider the impact of the Proposed Transaction on all shippers' alternatives within a corridor.

69. Consider a hypothetical shipper that needs to ship its merchandise from a given origin in the West of the United States to a given destination in the East.

- First, consider Corridor A that has three routes: UP-NS, UP-CSXT, and BNSF-NS. Absent any additional considerations or remedies, the Proposed Transaction is likely to generate harm on Corridor A as the merged carrier will be part of any available alternative, and Dr. Israel's algorithm would classify this corridor as a 2-to-1, i.e., a merger to monopoly.[125]
- Second, consider Corridor B with the same set of routes as in Corridor A and also an additional BNSF-CSXT route. In this Corridor B, both carriers that operate in the West are observed to offer interlining routes that involve each of the two carriers that operate in the East, for a total of four routes in the corridor. Dr. Israel classifies this Corridor B as a 2-to-2 (with independent routes defined by BNSF-CSXT and UP-NS in the pre- and the post-merger worlds), so he rules it out from the set of corridors for which there is a concern of a potential loss of competition.

70. Dr. Israel's assessment of Corridor B above hinges on the ability of shippers to substitute seamlessly the BNSF-NS option with the BNSF-CSXT option (and similarly, to substitute seamlessly the UP-CSXT with the BNSF-CSXT). For example, if NS and CSXT are equally valid options, shippers currently relying on BNSF-NS could, in principle, move their traffic to the BNSF-CSXT alternative to defeat a hypothetical exercise of market power by the merged entity. Yet it is unlikely to be the case that NS and CSXT are equally good options. Dr. Israel's own work indicates that shippers and railroads negotiate contracts that have contractual terms

[125] Dr. Israel's algorithm, for example, records the corridor from {{[redacted]}}. This optionality does not exist post-merger. Israel VS, Appendix D, Tables D-1 and D-3.

besides a simple posted price. These contracts may include rigidities that would limit a shipper's ability to switch route options within a corridor, at least in the short term.[126] Moreover, there exist additional factors such as interchange access, specific locations of rail sites, commodity preferences, and quality of service that all cut against the notion that NS and CSXT are equally good options for every shipper in a corridor under scrutiny.[127] When CSXT and NS are not perfectly substitutable alternatives in the East (or UP and BNSF are not perfectly substitutable in the West), then the Proposed Transaction has the potential to cause horizontal harm in corridors like Corridor B.[128]

71. For further illustration of how Step 1 of Dr. Israel's analysis of within corridor competition does not consider all changes in shippers' options from the Proposed Transaction, consider the example of the {{[redacted]}} corridor presented in Figure 11, for which Dr. Israel identifies four routes defined by combinations in which BNSF or UP interchange with either NS or CSXT that shippers use today. Out of the four routes available to shippers, Dr. Israel claims there are two independent routes pre- and post-merger, making this corridor a 2-to-2 in his analysis.

[126] Israel VS, ¶¶ 21 ("The vast majority of the parties' interline traffic in 2024, approximately {{[redacted]}} percent for UP and {{[redacted]}} percent for NS, involves either long-term contracts, private quotes, or other non-tariff arrangements.").

[127] {{[redacted]}}.

[128] This is even further demonstrated in Dr. Israel's new routes, as Dr. Israel dismisses concern in corridors by adding in routes with zero (or low) traffic. {{[redacted]}}. Israel VS, Appendix D, Tables D-1 and D-3.

Figure 11: Dr. Israel's Within Corridor Analysis of Independent Routes Before and After the Merger ({{[redacted]}}) {{



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72. An important observation arising from Figure 11 is that the Proposed Transaction increases the number of overlaps in the BNSF-NS and UP-CSXT routes, from two to three (see third and fourth rows in second panel of the figure above). As there are only four available routes in this corridor, this result implies that any shippers currently on BNSF-NS and UP-CSXT pre-merger would not have an alternative independent option following the Proposed Transaction, even though they both have one absent the merger.[129] For example, in the pre-merger world, a UP-CSXT shipper has the option to obtain a through rate quote from BNSF-NS (a route that shares no common carrier with the current alternative of choice). A shipper relying

[129] As CSXT-UPNS overlaps with all three other routes, shippers using this route would have no alternatives to avoid any of the carriers in that route. Prior to the merger, shippers on CSXT-UP would have an option to avoid both carriers by switching to BNSF-NS. Another way to consider this is that in the pre-merger world, every route would have a completely separate alternative. For example, shippers on BNSF-NS would have a fully unrelated alternative with CSXT-UP, which would not be the case after the merger.

on BNSF-NS could do something similar. Post-merger, this is no longer the case. Shippers wishing to continue using these two routes (BNSF-NS and UP-CSXT) will be forced to continue transacting with at least one of the two carriers that currently serve them (in other words, they would have no alternative independent option from the one they rely on today).[130]

(c) Step 2 of Dr. Israel's analysis of competition within corridors rules out competitive concerns based on an analysis that lacks an economic basis

73. Similar to Dr. Bailey, Step 2 in Dr. Israel's analysis—where he considers hypothetical routes not in his data sample to dismiss the 74 corridors identified in his first step—is also flawed.[131] As some of these routes do not involve UP and NS, Dr. Israel provides no discussion of the underlying mechanics that would lead railroads besides UP and NS to offer these new routes or the extent to which shippers would ship on these hypothetical routes. Instead, he simply assumes that they are now viable competitive alternatives even though his analysis does not consider them as competitive options in *six* years of comprehensive waybill data.

3. A reasonable alternative to the analyses of competition within corridors by Dr. Israel and Dr. Bailey identifies a larger set of corridors subject to potential loss of competition from the Proposed Transaction

74. In the previous two sections (III.B.1 and III.B.2), I criticized Applicants' experts' methodologies for the analysis of competition within corridors. In this Section III.B.3, I discuss an alternative analysis that results in a larger set of corridors subject to potential loss of competition from the Proposed Transaction than the potential loss of competition implied by Dr. Bailey's and Dr. Israel's analyses combined.[132] Rather than focusing on "independent routes" (the object of analysis studied by Dr. Israel), I focus on the number of routes in a given corridor

[130] I also note that Dr. Israel's reported results, in general, understate any potential loss of competition within corridors because he does not report the loss of independent routes where UP and NS operate at one or both ends of a corridor. Israel VS, ¶ 79. I show the results of Dr. Israel's algorithm on these corridors in Appendix Figure 8.

[131] Israel VS, Section III.F.1.

[132] For the analysis I present in this section, I adopt – yet do not necessarily endorse – Dr. Israel's assumptions regarding geographic- and commodity-level aggregation, where applicable.

that feature at least one independent option.[133] The economic rationale behind the focus on routes with independent options is intuitive. If shippers and railroads negotiate as often as Dr. Israel claims they do, the availability of outside options shippers can leverage in their negotiations with railroads is relevant to how shippers and railroads split the "surplus" in their negotiation.[134, 135] In contrast to both Dr. Israel and Dr. Bailey, I offer a single approach to analyze all traffic types and do not exclude corridors based on whether UP and NS serve the same "leg" or segment of a corridor.[136]

75. Going back to the example discussed in the previous section (see Figure 11 above), under my alternative analysis, all four routes from {{[redacted]}} prior to the merger would be identified as having independent options that shippers could use as an alternative

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[133] Israel VS, ¶ 79. Dr. Israel claims that the "[a]nalysis of [i]ndependent [r]outes [c]annot [r]eliably [a]ssess the [c]ompetitive [o]ptions [a]vailable to [s]hippers[.]" Israel VS, Section III.F.2. For example, Dr. Israel discusses a case in which the corridor features a monopoly railroad in one of its segments. Dr. Israel claims "[t]he number of independent routes in a corridor would not be competitively relevant to such a shipper because it would be sole served both before and after the merger." Israel VS, ¶ 89. But this is an explanation to a problem that does not exist in his analysis of independent routes, as any corridor featuring a configuration like the one in the case Dr. Israel discusses would have a single independent route pre and post-merger (given all routes depend on the sole-serving carrier).

[134] Carlton and Perloff (2005), pp. 70-71 ("Typically, consumers value the goods they purchase above the amount they actually pay for them. Consumer surplus is the amount above the price paid that a consumer would willingly spend, if necessary, to consume the units purchased. … Similarly, firms may receive more for the goods they sell than it costs them to produce those goods. Producer surplus is the largest amount that could be subtracted from a supplier's revenues and yet the supplier would still willingly produce the product.").

[135] Israel VS, ¶¶ 21-22. The intuition underlying this approach is that an independent route is one that shippers/receivers can use as a credible bargaining alternative when negotiating terms of service within the corridor. That is, when negotiating with NS, shippers/receivers can more effectively play UP against NS if UP offers an alternative route from O to D that does not rely on NS in any of its segments. For example, for the Proposed Transaction, a corridor served by a BNSF-NS interline route and a UP-CSXT interline route would be flagged as one with a reduction in the number of routes with at least one independent option because, post-transaction, it will be served only by routes involving the merged carrier. By contrast, a corridor served only by a BNSF single-line route and a UP single-line route could not be flagged as having a reduction in the number of routes with at least one independent option because NS has no presence.

[136] Dr. Bailey is mistaken in her view that an analysis that considers the loss of independent routes would not identify certain corridors where there is a potential loss of horizontal competition. Bailey VS, ¶ 154. For example, the alternative analysis of within corridor competition flags {{[redacted]}}, as does Dr. Bailey's algorithm. See my workpapers.

option in negotiations with rail carriers.[137] Post-transaction, this method would identify only two of those routes as having an independent option, which means this corridor would be flagged as a 4-to-2.[138]

76. In total, my alternative analysis identifies a larger number of corridors subject to a potential reduction in competition within corridors as compared with Applicants' experts' analyses. This is summarized in Figure 12 below, which compares (Step 1) outcomes from Dr. Israel and Dr. Bailey's approach (after reasonable modifications of her data restrictions) to those in my alternative analysis. While the figure shows that Dr. Bailey and Dr. Israel's algorithms find {{[redacted]}} corridors associated with {{[redacted]}} in rail revenue, the alternative analysis finds {{[redacted]}} corridors associated with {{[redacted]}} in rail revenue (for corridors where the Proposed Transaction would reduce the number of independent route options to at most two).[139]

[137] A shipper relying on the BNSF-CSXT route can leverage the UP-NS option in negotiations with BNSF and CSXT, a shipper relying on the BNSF-NS route can leverage the CSXT-UP option in negotiations with BNSF and NS, a shipper relying on the CSXT-UP route can leverage the BNSF-NS option in negotiations with UP and CSXT, and a shipper relying on the NS-UP route can leverage the BNSF-CSXT option in negotiations with UP and NS.

[138] Post-transaction, shippers relying on the BNSF-UPNS or UPNS-CSXT option have no alternative independent routing that they can leverage in negotiations with the corresponding carriers. Given that my alternative analysis of competition within corridors identifies a route as having an independent alternative if such route (and its independent alternative(s)) has no carrier in common, a corridor may feature no routes with independent options which I refer to as "1s."

[139] Appendix Figure 9 shows the results of the alternative analysis of within corridor competition for additional corridors (e.g., where the Proposed Transaction would reduce the number of routes within a corridor with at least one independent option to 3 or more and also corridors with less than one carload per day from 2019 to 2024).

Figure 12: Alternative Analysis of Competition Within Corridors {{



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- *An example: {{* }} Pre-merger, this corridor features four routes: CPKC-CSXT, BNSF-CSXT, CSXT-UP, and CPKC-NS. Dr. Israel's approach identifies this corridor as a 2-to-2 – pre-merger, Dr. Israel finds two independent routes: BNSF-CSXT and CPKC-NS (or CSXT-UP and CPKC-NS); post-merger, Dr. Israel finds two independent routes as well: BNSF-CSXT and CPKC-UPNS. The alternative approach identifies this corridor as a 3-to-2 – pre-merger, all routes except for CPKC-CSXT have at least one independent alternative; post-merger, shippers on the CSXT-UP route no longer have an independent option (in other words, pre-

merger, they could use CPKC-NS as an independent option but they can no longer do that post-merger).[140]

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77. In summary, in this Section III.B I have shown that my alternative analysis identifies greater potential harm to competition within corridors as compared with Dr. Israel's and Dr. Bailey's analyses. Moreover, Dr. Israel and Dr. Bailey do not estimate the actual harm to shippers. I now turn to that issue in the next section.

C. ECONOMETRIC ANALYSIS OF COMPETITIVE EFFECTS SHOWS THAT THE PROPOSED TRANSACTION WOULD RESULT IN HIGHER RAIL RATES FOR SHIPPERS

78. In Sections III.A and III.B, I showed that Applicants' experts understate the extent of potential harm that would result from a reduction in horizontal competition stemming from the Proposed Transaction. The outcomes presented by Applicants' experts are the result of algorithmic approaches and tests that, at best, provide only the identification of potential areas of concern. While perhaps useful as a first step, those approaches do not empirically measure the impact of reductions in horizontal competition on rail rates.

79. In this section I discuss how an econometric model put forth by Dr. Israel for a separate purpose—to test if shippers' rates will face "downward pressure" given an elimination of double marginalization (and potential cost savings) following the merger—produces an additional finding (available only in Dr. Israel's workpapers) relevant to the discussion of horizontal competition.[141] Notably, *Dr. Israel finds that the statistical evidence supports the claim that rail rates are lower where more railroads serve either the destination or origin of a shipment*.[142] In Section III.C.1, I first describe Dr. Israel's model and discuss his findings on horizontal competitive impact. While I do not necessarily endorse Dr. Israel's econometric model, in

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[140] See my workpapers.

[141] Israel VS, ¶ 112; Israel VS workpapers {{[redacted]}}. See n. 145.

[142] Israel VS, Section IV.B.3. I also address Dr. Israel's test of double marginalization (and potential cost savings) and find it is not robust to a reasonable modification. See Section VII.A. Additionally, Dr. Israel's estimates separately show that UP sets its rates higher than NS does today, a finding that implies a potential for rate "uplift" post transaction. I discuss this in Section V.B.

Section III.C.2 I further show that refinements of Dr. Israel's model result in an even greater empirical estimate of the horizontal harm from the Proposed Transaction than the one based on Dr. Israel's workpapers.

1. Dr. Israel's modeling approach finds that shippers would face higher rail rates from a reduction in horizontal competition as a result of the Proposed Transaction

80. Economists often use data and regression models to study the relationship between prices and different factors that can contribute to their determination. For example, a regression model examines how one variable (e.g., an interline indicator) can explain prices after accounting for other factors that influence price (e.g., distance shipped).[143] This is illustrated in the simple example below, where price (p) is explained by two variables X and Z (plus an "error" term, ε).

$$p = \beta_1 X + \beta_2 Z + \varepsilon$$

81. Suppose p is the price of rail shipments, X is an indicator for whether a rail shipment is interline, and Z is the miles shipped. The estimation of this regression model produces estimates of the coefficients on each of the variables $(\hat{\beta}_1, \hat{\beta}_2)$, which are each interpreted as the estimated effect on prices of a change in the corresponding variable, holding constant the other factors included in the regression model. For example, the estimate $\hat{\beta}_1$ would measure the increase in price if the shipment is interline, holding mileage constant. Similarly, the estimate $\hat{\beta}_2$ would measure the increase in price from shipping an additional mile, holding the type of shipment (interline or non-interline) constant.

82. Dr. Israel relies on a regression model to test empirically whether shipping rates will face "downward pressure" following the merger given the elimination of double marginalization (and potential cost savings).[144] While I discuss Dr. Israel's analysis of double marginalization later in

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[143] Jeffrey M. Wooldridge, "Multiple Regression Analysis: Estimation," in *Introductory Econometrics,* 7th edition, Cengage (2018), 66-116, pp. 66-70.

[144] Israel VS, ¶¶ 112-113, n. 52, Figure 10. See Appendix A.C.1 for the equation underlying Dr. Israel's econometric model. Dr. Israel's econometric model studies the effect of interlining on the pricing of shipments involving UP or NS using waybill data from 2019 to 2024 that includes both interline and single-line shipments. To do so, Dr. Israel's regression specification relates the (log) rail rate per car-

Section VII.A, Dr. Israel's regression model includes (but is reported only in his workpapers) a set of variables measuring competition that have important implications for the analysis of horizontal competition associated with the Proposed Transaction. The estimated coefficients associated with those variables indicate that rail rates are statistically significantly higher when there are fewer Class I railroads at either the origin or destination of a shipment.[145]

83. Dr. Israel's variables that measure competition count the number of Class I railroads at either the origin or destination of a shipment. They imply that, on average, one less competitor at the destination is associated with rates that are {{[redacted]}} higher, while one less competitor at the origin is associated with rates that are {{[redacted]}} higher.[146] For reference, these variables take on a value from 1 to 6, depending on the number of Class I railroads that he finds serve a given station-commodity pair.[147] For example, Dr. Israel finds that UP, NS, and BNSF are the set of

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mile (the dependent variable) to a set of variables that include whether the shipment involves interlining plus "other factors that affect pricing" (e.g., commodity type, car owner, car type, and average net weight per car). Israel VS, ¶ 112.

[145] Israel VS workpapers {{[redacted]}}. Dr. Israel's estimates for the coefficients associated with the counts of Class I railroads at origin and destination are both negative and statistically significant, which indicates a higher rate when those counts are lower, all else equal.

[146] I base these results on Dr. Israel's "all simple interline" model after correcting Dr. Israel's underlying data sample, as follows. First, I include all UP and NS Rule 11 shipments as Dr. Israel excludes a portion of them even though he states his results include "Rule 11 interline traffic between UP or NS and other Class I railroads from 2019 to 2024[.]" Israel VS, ¶ 113. Second, I include certain CPKC shipments that Dr. Israel excludes from his analyses due to a coding error, consistent with his discussion that he includes all shipments with "other Class I railroads[.]" Israel VS, ¶ 113. Third, I fix Dr. Israel's Through Rate and Rule 11 indicators to only identify interlining between two different Class I railroads. Fourth, I fix Dr. Israel's "UP" shipment indicator to correctly identify all shipments in which UP is involved, as well as his "NS" shipments indicator to correctly identify all shipments in which NS is involved, according to Dr. Israel's route railroad variable. For example, Dr. Israel's NS's shipment indicator does not identify some shipments where the route is "UP-NS", so I update the "NS" indicator to identify these shipments. For his "all simple interline traffic" regression, these corrections increase the pricing effect that Dr. Israel reports in his workpapers from {{[redacted]}} to {{[redacted]}} at origin and from {{[redacted]}} to {{[redacted]}} at destination. See Figure 13; Israel VS Workpapers {{[redacted]}} after applying formula exp(X)-1.

[147] Dr. Israel's "Competition Version 1" defines a station using (origin, destination, or interchange) SPLC-6 and a commodity (based on a modified STCC-2 that considers intermodal and automotive units separately). Dr. Israel considers a railroad to have access to or operate at a station for a given station-commodity pair if such railroad has over 1% of the shipments from 2019 to 2023 (by the confidential waybill sample) or if the railroad can be found serving such station in the centralized station master and Serving Carrier/Reciprocal Switch files. Israel VS, nn. 30, 31. Israel VS workpapers {{[redacted]}}.

Class I railroads that ship farm products into or out of {{[redacted]}}, so this variable would take a value of three. Following the Proposed Transaction, this variable would be equal to two because, all else equal, there would be one less distinct Class I railroad in {{[redacted]}}. This implies that rates would go up by {{[redacted]}} for rail shipments originating out of {{Avon, Iowa}}, and that rates would go up by {{[redacted]}} for rail shipments terminating in {{[redacted]}}.[148]

84. The implied effects of Dr. Israel's model on rail rates are economically significant.[149] In 2023, shippers at origins with both UP and NS spent {{[redacted]}} on rail services involving UP or NS. Similarly, shippers at destinations with both UP and NS spent {{[redacted]}} on rail services involving UP or NS.[150] These expenditures, multiplied by the estimates of Dr. Israel's model, imply shippers' expenses on UP/NS rail services would *increase by as much as {{[redacted]}} per year post transaction* (also see Figure 13).

2. Refinements of Dr. Israel's model show that the Proposed Transaction would raise shipping rates

85. In Section III.B.3, I explained that the Proposed Transaction potentially would harm competition within corridors by reducing the number of routes with at least one independent option. I now extend Dr. Israel's modeling approach by adding variables that estimate the effects of these changes in competition within corridors on rail rates.[151] These variables are statistically significant and imply that decreases in competition within corridors would increase rates. See Figure 13 below.

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[148] See my workpapers.

[149] These results are also consistent with UP internal documents that discuss competitive impact associated with a potential UP and NS transaction. {{[redacted]}}.

[150] This analysis uses Dr. Israel's "Competition Version 1" to find stations where UP and NS operate, which I adopt but do not necessarily endorse. Israel VS, ¶ 50. See also Appendix Figure 12 for this revenue by number of railroads pre and post Proposed Transaction.

[151] Even with these refinements, I do not necessarily endorse Dr. Israel's model.

Figure 13: Effects of Horizontal Competition on Shipments' Rates (Dr. Israel's UP/NS Regression Model with Data Corrections and Refinements) {{



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86. Figure 13 shows three refinements of Dr. Israel's "all simple interline" model.[152]

- In the first refinement of Dr. Israel's model, I study the effects of competition within corridors by *only* adding a variable to Dr. Israel's model that represents the (pre-merger) number of routes in a given corridor with at least one independent option.[153] This effect is

[152] I focus this analysis on Dr. Israel's "all simple interline" model because it includes the most UP and NS data. Israel VS, Figure 10. I show the estimated coefficients associated with these models in Appendix Figure 10.

[153] See Section III.B.3.

statistically significant and negative at {{[redacted]}}, implying that corridors with a higher count of routes with at least one independent option have lower rates.[154] Given impacted volumes of commerce, this refinement of Dr. Israel's model implies an overall impact of the Proposed Transaction on UP/NS shippers' expenses that is estimated to be {{[redacted]}} (inclusive of the competitive effects already captured by Dr. Israel's model).

- In the second refinement of Dr. Israel's model, I study the effects of competition within corridors by *only* adding a variable to Dr. Israel's model that identifies shipments on routes for which today there exists at least another independent route within the same corridor. Shipments on these routes are associated with statistically significantly lower rates than shipments on routes that have no alternative options within a corridor (the estimated effect is of {{[redacted]}}).[155] Given impacted volumes of commerce, this refinement of Dr. Israel's model implies an overall impact of the Proposed Transaction on UP/NS shippers' expenses that is estimated to be {{[redacted]}} (inclusive of the competitive effects already captured by Dr. Israel's model).

- In the third refinement of Dr. Israel's model, I study the effects of competition within corridors by adding *both* of the competitive effects variables from the previous two refinements mentioned above to Dr. Israel's model. Given impacted volumes of commerce, this refinement of Dr. Israel's model implies an overall impact of the Proposed Transaction on UP/NS shippers' expenses that is estimated to be as high as {{[redacted]}} (inclusive of the competitive effects already captured by Dr. Israel's model). These variables are collectively statistically significant, showing that they are a relevant addition to Dr. Israel's model.[156]

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[154] A corridor can lose more than one route with at least one independent option as a result of the Proposed Transaction, which is captured by this variable. For example, if the number of routes with at least one independent option within a corridor decreases from 4 to 2 (such as {{[redacted]}}), this model would imply an increase in rates estimated to be about {{[redacted]}}. See ¶ 75.

[155] For example, shippers using {{[redacted]}} today from {{[redacted]}} would lose their independent option {{[redacted]}} following the Proposed Transaction, leading to higher rail rates, according to the model estimates. See ¶ 75.

[156] I also perform an F-test of the competition variables (competition at origin, competition at destination, and competition within corridor) and confirm that these variables are jointly statistically significant at the 1% level. See my workpapers.

87. When I apply the pricing percentage effects just from Dr. Israel's model to all shipments where there is a reduction in competition (not only shipments in which UP or NS are involved), this results in an overall impact of the Proposed Transaction on shippers' expenses across all Class I railroads estimated to be {{[redacted]}}. When I add both variables related to competition within corridors to Dr. Israel's model, the overall impact of the Proposed Transaction on shippers' expenses across all Class I railroads is estimated to be {{[redacted]}}.[157]

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88. The econometric models summarized in this Section III.C provide evidence on the impact of the Proposed Transaction on shippers' rates due to a lessening of horizontal competition. Those effects result in likely increased expenses for shipments in which UP and NS are involved that range from over {{[redacted]}} in Dr. Israel's model to over {{[redacted]}} in the alternative versions I described above (and from {{[redacted]}} to {{[redacted]}} if I apply the estimates from the models to all shipments where there is a reduction in competition). Contrary to the arguments presented by Applicants' experts, the Proposed Transaction would harm shippers as a result of the lessening in horizontal competition.

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[157] For shipments for which the Proposed Transaction reduces the number of options to 3 or less across any measure of competition (number of railroads at origin, number of railroads at destination, or number of routes with at least one independent option within a corridor) – the model estimates an increase of {{[redacted]}} in shippers' expenses. For shipments for which the Proposed Transaction reduces the number of options to 2 or less in at least one measure of competition, the model estimates an increase of {{[redacted]}} in shippers' expenses. I consider reductions in any of the three measures of competition to classify shipments in each of these groups. For example, if a shipment is a 5-to-4 at origin, 4-to-3 at destination, and 4-to-2 within corridors, I would consider this shipment within the group that is reduced to 2 or less options post-merger (given the reduction to 2 alternatives in the competition within-corridors metric). See my workpapers.

Additionally, if I re-estimate these models on Dr. Israel's sample of all railroad traffic (i.e., not limited to UP- or NS-related traffic, see Israel VS, n. 52), the overall impact of the Proposed Transaction on shippers' expenses, as implied by Dr. Israel's model, is estimated to be {{[redacted]}}. Once again considering Dr. Israel's sample of all railroad traffic, when both of the variables related to competition within corridors are included, the overall impact of the Proposed Transaction on shippers' expenses is estimated to be approximately {{[redacted]}}. See Appendix Figure 11 and my workpapers.

IV. APPLICANTS UNDERSTATE THE RISK OF HARM FROM THE PROPOSED TRANSACTION BECAUSE THEY IGNORE THE NETWORK NATURE OF THE RAILROAD INDUSTRY IN THEIR DISCUSSION OF VERTICAL FORECLOSURE

89. Applicants and their experts Dr. Bailey and Dr. Israel characterize the Proposed Transaction as an "end-to-end" combination of complementary rail networks that will "unlock" significant benefits with "no realistic prospect for material harm to competition from vertical foreclosure[.]"[158] In this section I evaluate these claims, especially those related to the (claimed non-existent) potential for harm.

90. I first provide an overview of the analysis of end-to-end mergers in the rail industry, focusing on the positions most recently adopted by the STB, antitrust agencies, and UP and NS themselves. Second, I explain that the Proposed Transaction has the potential to harm shippers by reductions in volumes and shifts in traffic patterns that would lead rivals to the merged carrier to implement reductions in network investments, deterioration of service, and potentially lane closures. Despite acknowledging the network nature of the rail industry and the changes in traffic patterns the Proposed Transaction will bring, Applicants' experts do not offer a discussion of this theory of harm throughout the network. Third, I discuss empirical evidence from the most recent end-to-end transaction – the CP-KCS merger, which was much smaller than the one proposed here – that illustrates how interline activity between a combined UP/NS and other Class I railroads can decrease following a merger. Fourth, I explain that the logical implication of Applicants' arguments in favor of approval of the merger is that a single monopoly railroad should exist. Finally, I explain why Dr. Israel's reasons to justify his finding of no realistic prospect for material harm to competition from vertical foreclosure are unsupported by the economic evidence.

91. In total, Applicants have failed to demonstrate that the Proposed Transaction will not cause competitive harm through vertical foreclosure. Due to the network nature of the railroad industry and under the conditions I describe below, such harm is likely to be an outcome of the Proposed Transaction, which should be balanced against any potential benefits.

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[158] Amended Railroad Merger Control Application, p. 13; Bailey VS, ¶ 32; Israel VS, ¶ 14.

A. "END-TO-END" MERGERS HAVE THE POTENTIAL TO HARM SHIPPERS

92. The economic analysis of mergers compares expected costs and benefits of integration, both at the private and social levels. While there are many explanations for mergers, the motive for engaging in a merger is an expected increase in profitability for the combined firms. When the mechanism through which private profits are increased also generates efficiencies, those efficiencies can benefit shippers. For example, railroad mergers that streamline operations of the merged entity's network could benefit shippers through lower shipping rates and/or enhanced quality.[159]

93. Yet not all mergers are socially desirable. Some transactions may also impose a social cost that can outweigh any benefits from integration. As I discussed in Section III, when the merging firms are rivals, the reduction in horizontal competition can harm consumers in the form of reduced quality or higher prices.[160] But the potential for harm to consumers can also arise when firms operate on different ends of the same business, as in the case of a merger between rail carriers that connect to provide interline services.[161] Although the risks of competitive harm from horizontal mergers are well-recognized, the risks from vertical competitive harm are more subtle since there are certain inherent efficiencies from the combination of complementary products. Still, there is an increased understanding that mergers with vertical elements can,

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[159] In network industries, mergers can achieve efficiencies. Dennis W. Carlton and Randal C. Picker, "Antitrust and Regulation," in *Economic Regulation and Its Reform: What Have We Learned*? edited by Nancy L. Rose, The University of Chicago Press (2014): 25-61 (hereinafter, "Carlton and Picker (2014)"); Dennis W. Carlton and J. Mark Klamer, "The Need for Coordination Among Firms, with Special Reference to Network Industries," *The University of Chicago Law Review*, Vol. 50, No. 2 (1983): 446-465 (hereinafter, "Carlton and Klamer (1983)"); Yanyou Chen, "Network Structure and the Efficiency Gains from Mergers: Evidence from the U.S. Freight Railroads," *The RAND Journal of Economics*, (2026): 1-28 (hereinafter, "Chen (2026)").

[160] Carlton and Perloff (2005), p. 23.

[161] Decision, Canadian Pacific Railway Limited, et al. – Control – Kansas City Southern et al., STB Docket No. FD 36500, March 14, 2023 (hereinafter, "CPKC Decision"), pp. 3-4 ("This transaction is 'end-to-end,' meaning that there are little to no track redundancies or overlapping routes. ... Even end-to-end mergers, however, can pose competitive risks[.]").

under certain circumstances, harm competition.[162] In this section, I show that those risks in a network industry like railroads exist in a way that they do not generally exist in other industries and therefore need to be considered.[163]

94. The potential for harm from vertical aspects of a merger arises from the possibility that the integrated entity could limit access to products or services that rivals use to compete throughout the network.[164] Those limits, usually referred to as foreclosure, can weaken the competitive position (present or future) of those rivals that depend on the offerings of the vertically integrated firm to serve their own customers throughout the network. To the extent their weakened position leads them to be less effective competitors, a merger that forecloses rivals can result in harm to competition.[165] In the case of a merger in the railroad industry, foreclosure concerns can arise if the newly merged entity winds up limiting access to competing railroads.

95. The potential for mergers to harm competition via vertical aspects arises from both the *ability* (i.e., whether the merged entity can foreclose when that was not available absent integration) and the *incentive* (i.e., whether the merged entity would find it profitable to engage in foreclosure) of the integrated entity to lessen competition through foreclosure.[166] The discussion around the ability and incentive to foreclose was at the center of the most recent merger of Class I carriers before the STB: the Canadian Pacific ("CP") and Kansas City

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[162] Dennis W. Carlton, "Transaction costs and competition policy," *International Journal of Industrial Organization,* Vol. 73 (2020): 1-14; Dennis W. Carlton and Michael Waldman, "The strategic use of tying to preserve and create market power in evolving industries," *The RAND Journal of Economics*, Vol. 33, No. 2 (2002): 194-220.

[163] The possibility of vertical harm in the recent economic literature has often not focused on network industries such as railroads. For a discussion of these effects, see Carlton and Picker (2014), Carlton and Klamer (1983), and Chen (2026).

[164] 2023 Merger Guidelines, p. 13 ("Mergers involving products or services rivals may use to compete can threaten competition in several ways, for example: (A) the merged firm could limit rivals' access to the products or services, thereby weakening or excluding them, lessening competition; (B) the merged firm may gain or increase access to rivals' competitively sensitive information, thereby facilitating coordination or undermining their incentives to compete; or (C) the threat of limited access can deter rivals and potential rivals from investing.").

[165] 2023 Merger Guidelines, p. 14.

[166] 2023 Merger Guidelines, § 2.5.A.1.

Southern ("KCS") merger ("CPKC merger"). In the CPKC merger proceeding, applicants disregarded concerns about harm associated with the vertical aspects of their proposed merger (later approved) by referencing the prescriptions of an economic theory known as the "one-lump" theory, which the STB had endorsed and relied on in the past when analyzing end-to-end mergers.[167]

96. The one-lump theory, referred to by Dr. Israel as the "'one-monopoly rent' idea," postulates that under certain assumptions a monopolist on one end of a production stage has no incentives to raise prices with firms on the other end because, as a monopolist, the firm is already earning all there is to be earned.[168] While the one-lump theory can be relied on as a reasonable first approximation to the expected effects of vertical integration in environments where the theory applies, commenters have adopted different views on the ability of the theory to describe the reality of the railroad industry. For example, Dr. Reishus in the CPKC merger proceeding recognized that the theory "does not apply under different regulatory systems[,]" and that "concerns about bargaining and bundling raise the possibility that vertical mergers can result in higher prices to shippers."[169] Prof. Salop and Prof. Mayo, UP's and NS's economic experts in that proceeding, held related views.[170] As I explain below in this section, during the CPKC merger proceeding antitrust agencies and UP and NS (among others, such as BNSF) questioned the applicability of that theory as justifying a presumption in favor of end-to-end mergers, leading the STB to affirmatively modify its position regarding its reliance on the one-lump theory. This approach is consistent with the underlying economic forces that can arise in end-to-end mergers in a network industry such as railroads.

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[167] Majure VS, n.10, ¶¶ 22, 24; CPKC Decision, p. 44.

[168] Israel VS, Appendix B, p. B-2.

[169] Verified Statement of David Reishus, PhD (on behalf of BNSF), Canadian Pacific Railway Limited, et al. – Control – Kansas City Southern, et al., STB Docket No. FD 36500, February 28, 2022 (hereinafter, "Reishus VS (CPKC)"), ¶¶ 11, 12. See also Reishus VS (CPKC), ¶ 38.

[170] See below for more details.

1. Applicants' position in this matter contradicts the views UP and NS expressed during the CPKC merger proceeding

97. Applicants' current position regarding competitive risk associated with the vertical aspects of the Proposed Transaction is at odds with their stance during the CPKC merger proceeding. In its analysis of the CPKC merger before the STB, UP noted that:

> "[M]odern economic analysis has shown that when an upstream monopolist [] and downstream rivals [] lack full information about each other's costs and prices, or when the rivals provide differentiated services—i.e., services that shippers view as qualitatively different—the monopolist generally cannot extract the full 'one lump,' so the shipper retains a surplus. In those circumstances, which exist here, the merged carrier *does* have an incentive to engage in anticompetitive conduct: to eliminate the shipper's surplus and extract the full 'one lump.'"[171]

98. This opinion is based on the analyses performed by Prof. Steven Salop, UP's economic expert in that proceeding. Prof. Salop's assignment included, in particular, a request to address "the applicability of the one-lump theory to the proposed merger[.]"[172] While acknowledging that, at least until then, the STB had "traditionally relied on the 'one-lump' theory to presume that end-to-end mergers are procompetitive," Prof. Salop found that because "deviations from the conditions that are necessary to sustain the one-lump theory are present in the markets that will be affected by the [CPKC transaction]," the one-lump theory "[did] not support such a presumption in [the CPKC merger] matter" and that CPKC would have "the incentive and the ability to implement anticompetitive strategies that foreclose competitors[.]"[173]

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[171] Union Pacific Railroad Company's Comments and Request for Conditions, Canadian Pacific Railway Limited, et al. – Control – Kansas City Southern, et al., STB Docket No. FD 36500, February 28, 2022 (hereinafter, "UP Comments (CPKC)"), p. 32 (emphasis in original) (notes omitted).

[172] Verified Statement of Steven C. Salop (on behalf of UP), Canadian Pacific Railway Limited, et al. – Control – Kansas City Southern, et al., STB Docket No. FD 36500, February 28, 2022 (hereinafter, "Salop VS (CPKC)"), ¶ 5.

[173] Salop VS (CPKC), ¶¶ 11, 12. See also Salop VS (CPKC), ¶ 11 ("Modern economic theory has recognized that the one-lump presumption does not apply under certain market conditions, in particular, when (a) the market participants sell differentiated products (i.e., products that shippers do not view as perfect substitutes at equal rates), or (b) the carriers set their rates based on imperfect information about each other's costs and rates. Both of these deviations from the conditions that are necessary to sustain the one-lump theory are present in the markets that will be affected by the proposed transaction.").

99. Similarly, Prof. John Mayo – NS's expert in the CPKC proceeding – explained that while the one-lump theory may hold in some circumstances, there also exist conditions that make the theory inapplicable and that, as a result, "it is not possible to conclude that incentives for post-merger anticompetitive conduct are uniformly absent in the case of vertical mergers."[174] Based on inspections of interline routes where the merger would create single-line routes, Prof. Mayo concluded that a "substantial number of rail traffic routes are subject to potential incentives for anticompetitive conduct[.]"[175]

100. In sum, at the request of UP and NS, both Prof. Salop and Prof. Mayo evaluated conditions under which the one-lump theory was applicable in the context of the railroad industry and the specifics of the CPKC merger. Both experts agreed on the fact that it is not possible to disregard the potential for anticompetitive vertical effects on the basis of theoretical arguments. UP and NS both endorsed such opinions. Almost five years later, UP and NS now claim there will be no competitive harm from the vertical aspects of their Proposed Transaction.

101. In its decision on the CPKC merger, the STB modified its position with respect to the one-lump theory. Up until this decision, the one-lump theory was the main economic doctrine behind the STB's assessment (and that of the ICC, its predecessor) of the competitive impact of vertical aspects of a merger.[176] Motivated by these comments, the STB endorsed the opinion of UP's expert Prof. Salop and concluded that "the one-lump theory does not justify a presumption that a vertical combination will not result in competitive harm."[177]

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[174] Verified Statement of Professor John Mayo, Ph.D. (on behalf of NS), Canadian Pacific Railway Limited, et al. – Control – Kansas City Southern, et al., STB Docket No. FD 36500, February 28, 2022 (hereinafter, "Mayo VS (CPKC)"), ¶ 33. See also Mayo VS (CPKC), ¶¶ 31-33.

[175] Mayo VS (CPKC), ¶ 46.

[176] CPKC Decision, p. 44, n. 54.

[177] CPKC Decision, p. 47. The STB also relied on the DOJ for this decision. CPKC Decision, p. 45 ("On January 24, 2023, DOJ filed a comment to clarify its position on the proposed merger, which DOJ states is reflected in an earlier comment it filed on April 12, 2021. … Although neither filing refers to the one-lump theory by name, DOJ notes in its new comment that the vertical foreclosure concerns raised in the record 'echo the types of concerns that the Antitrust Division carefully considers in assessing competitive effects.'").

102. I agree that in some circumstances involving a route with interlining, the one-lump theory does not apply, as Prof. Salop and Prof. Mayo indicate. It is also true that the conditions for competitive harm to result from a merger involving vertical elements, as here, are more likely to arise in a network industry, which is the aspect of this transaction that I focus on in this Section IV. Indeed, I discuss in Section IV.B that the vertical aspects of a merger in one part of the network can impact horizontal competition in other parts of the network that may be affected by foreclosure on one route. This turns foreclosure into a theory of horizontal harm.

2. The network nature of the railroad industry is significant because of interlining

103. Interlining allows railroads to take part in many more shipments than they would complete if they had to rely only on single-line, direct service.[178] Figure 14 below shows that in 2023 Class I carriers participated in shipments in the United States associated with {{[redacted]}} in freight revenue, with {{[redacted]}} ({{[redacted]}}) of those revenues sold through an interline arrangement between Class I railroads.[179] UP and NS participated in a large fraction of these Class I interline shipments ({{[redacted]}}), associated with {{[redacted]}} of interlining revenue.

[178] Deposition of Katherine Novak (General Director of Interline Operations for UP), September 24, 2026, at 351:15-352:03 {{[redacted]}}.

[179] Additionally, including interline shipments between Class I and shortline railroads increases this estimate to {{[redacted]}}. UP or NS participate in shipments accounting for {{[redacted]}} of revenue associated with that interline traffic. See my workpapers.

Figure 14: 2023 Class I-Related Rail Freight Revenue in the U.S. – Interlining {{



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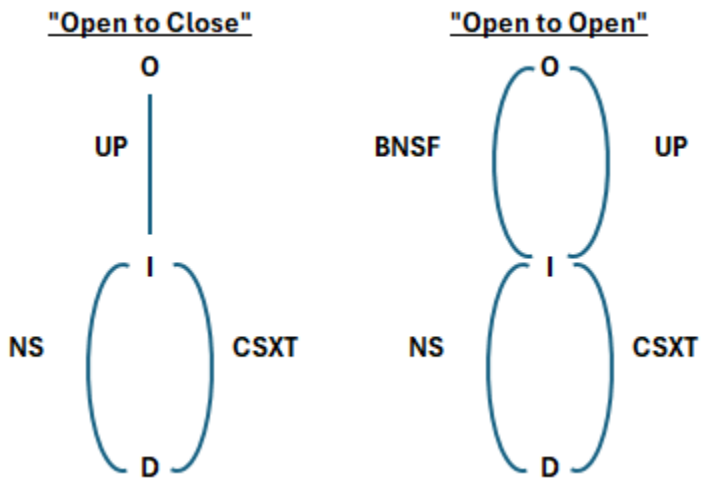
3. According to Prof. Salop's theory submitted on behalf of UP in the CPKC merger proceeding, the traffic volume at risk of potential competitive harm from foreclosure is substantial

104. Despite the fact that, post-merger, a combined UP/NS will have to continue interlining with other carriers to serve certain origins and destinations that its extended network cannot reach, the Proposed Transaction brings about a heightened risk of potential competitive harm from foreclosure in corridors where UP and NS serve different ends while competing with another carrier in at least one of those points. There are essentially two scenarios where this could occur, illustrated in Figure 15 below, according to Prof. Salop's theories.

Figure 15: Illustration of Potential Foreclosure Scenarios According to Prof. Salop's Theory Submitted on Behalf of UP in CPKC Merger Proceeding



- *Open to Close:* The open to close scenario (sometimes called the "bottleneck" scenario) is illustrated in the diagram to the left of Figure 15. In this case, one of the merging parties is the sole-server on one segment of the corridor, while its merging partner competes with rival carriers to serve the other segment of the corridor. For example, UP's expert Prof. Salop stated in the CPKC proceeding that:

> "When the one-lump theory does not hold and there is monopoly in one segment but competition in the other segment (or competition in both segments), an end-to-end merger can lead to foreclosure and reduce competition, which in the rail context could take the form of increased divisions or segment fees levied by the monopoly carrier and increased interline rates charged by the competing carriers, higher single-line rates and harm to shippers."[180]

- *Open to Open:* The open to open scenario is illustrated in the diagram to the right of Figure 15. In this case, both merging parties serve different segments of the corridor while competing against rival carriers. Foreclosure would be observed if a combined UP/NS deprives the non-merging carriers of traffic in this corridor. For example, UP's expert Prof. Salop stated in the CPKC proceeding that:

[180] Salop VS, ¶ 33.

> "Assume that Carrier B is not only a feasible alternative to Carrier A, but Carrier B has the same costs and product attributes of Carrier A, so it is a *perfect substitute* for Carrier A, and so there is intense pre-merger competition between Carriers A and B. Consider next the impact of a merger between Carriers A and X. Dr. Majure suggests that the existence of Carrier B would totally deter Carrier A from raising its fee to the unintegrated downstream Carrier Y (or to shippers that want to use Carrier Y).
>
> But economic analysis of this simple model indicates that this conclusion is incorrect. Despite the fact that Carrier B is a perfect substitute for the merging Carrier A, the merged carrier would still have a post-merger incentive to raise its division to Carrier Y. This is because the merged carrier would correctly anticipate that Carrier B would respond by raising the division it charges to Carrier Y. (Carrier B similarly would anticipate that Carrier A will have the incentive to raise its division.) This will lead to both carriers charging higher divisions. Thus, even if Carrier Y selects Carrier B for the origin segment, the higher division paid for that interline segment makes it more likely that the merged carrier will win the bidding, even when it sets a higher through rate than before the merger."[181]

105. I estimate in Figure 16 the volume of traffic associated with "open to close" and "open to open" shipments in which UP and NS are present on opposite ends and other railroads are present on (at least) one end to be {{[redacted]}} per year (based on 2023 rail revenue), according to Dr. Israel's "Competition Version 1" definition.[182] As {{[redacted]}} of this revenue is from the closed segment operated by UP ({{[redacted]}}) or NS ({{[redacted]}}), this analysis shows there is {{[redacted]}} in revenue for which non-merging carriers and UP/NS can compete today.[183] This volume is at risk of potential competitive harm from foreclosure according to Prof. Salop's theories submitted on behalf of UP in the CPKC merger proceeding.

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[181] Salop VS, ¶¶ 66-67 (emphasis in original) (notes omitted).

[182] Israel VS, ¶ 50. Additionally, I exclude shipments (i) where "Competition Version 1" shows that a single Class I carrier can serve both origin and destination pre-merger and (ii) on OSPLC6*DSPLC6, STCC2 (mod) pairs only served by UP-NS from 2019 to 2024 in Dr. Israel's data.

[183] See my workpapers.

Figure 16: Volume of Traffic at Risk of Potential Foreclosure from the UP/NS Proposed Transaction According to Prof. Salop's Theory Submitted on Behalf of UP in CPKC Merger Proceeding and Dr. Israel's Competition Version 1 {{



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106. Although Prof. Salop has indicated some circumstances under which his theory might apply, he did not indicate whether it does apply and if so whether the amount of affected commerce was significant. In the next section, I show that regardless of whether Prof. Salop's simple model is right for any one isolated route, any theory that deprives BNSF of volume because of foreclosure has the potential to harm competition throughout BNSF's network and therefore is much more significant as a potential concern than just the traffic on the foreclosed route.

B. THE NETWORK NATURE OF THE RAIL INDUSTRY HEIGHTENS THE RISK OF NEGATIVE IMPACT ON COMPETITION

107. Applicants' economic experts, Dr. Israel and Dr. Bailey, agree with the notion that the rail freight industry is a network. They do so with an exclusive focus on the positive externalities that the merger could bring about and that may not occur absent the merger due to a misalignment of private incentives and the difficulty of using contracts to overcome this misalignment.[184, 185]

108. Even though Dr. Israel and Dr. Bailey both tout the benefits of the Proposed Transaction from the merged carrier internalizing these externalities, they make an important omission in their analyses: they ignore the negative externalities that the decisions of the merged carrier can impose on rivals, which in turn can harm competition. Applicants' experts do not discuss the fact that due to economies of scale and scope, which are featured prominently in the rail industry, volume declines on a given route can impact the efficiency with which a railroad can serve other routes. This would be the case if, for example, such loss of volume on a given route results in deterioration in service frequency or overall quality on other routes of the network. As a result, foreclosure (whether actively pursued with anticompetitive strategies or passively arising from shippers' choices) can harm a rival railroad's network, even on routes other than the route where the foreclosure occurs. And harm to such a network can, in turn, adversely affect competition and result in harm to shippers throughout the network through higher prices or lower quality service. In turn, shippers might reduce their own investments (e.g., in capacity) if they see a reduction in service levels, non-merging railroads' investment, or competition among railroads.

109. In this Section IV.B I discuss this key point in detail. First, I describe the relevance of economies of scale and scope in the rail freight industry. Second, I show that based on Applicants' own estimates the Proposed Transaction will substantially reduce volumes for rival carriers. Third, I explain that those volume losses, when substantial enough, can lead to reduced

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[184] Israel VS, Section IV.A; Bailey VS, Section 3.1.

[185] Carlton and Perloff (2005), p. 82 (Externalities refer to situations in which decisionmakers "do not bear the full cost (benefit) from the harm (good) their actions do to others."). See also Carlton and Klamer (1983) for a discussion of the type of complications that arise in a network from attempting to use contracts to align incentives.

quality of service (e.g., frequency, reliability) and lower investments, not just for the affected corridor but also for other related routes and shippers. Finally, I discuss documentary evidence that illustrates how the link between volumes and investments/quality of service is part of the ordinary course of a rail carrier's business.

1. The economic literature recognizes the relevance of economies of scale and scope in the provision of rail freight services

110. The economic and transportation literature documents that operating a rail route requires substantial fixed infrastructure, including track, right-of-way, and structures. As freight volume increases over this fixed infrastructure, fixed costs are spread over more traffic, reducing average cost per unit of freight and thereby realizing economies of scale.[186] Thus, a railroad requires sufficient traffic volume on a route to recover its fixed costs, sustain service, and make continuing investments and improvements, including in crossings and other facilities that are associated with safety, reliability, and preservation of capital assets.[187]

111. Relatedly, economies of scope arise when a larger, interconnected network allows carriers to transport multiple origin-destination shipments over shared track segments, reducing average shipment costs.[188] When declining traffic volume leads a railroad to reallocate resources

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[186] Carlton and Perloff (2005), p. 36 ("A firm's average cost may remain constant, rise, or fall as its output expands. If average cost falls as output increases, the firm is said to have economies of scale[.]"). See also John D. Bitzan and Theodore E. Keeler, "The evolution of U.S. rail freight pricing in the post-deregulation era: revenues versus marginal costs for five commodity types," *Transportation,* Vol. 41, No. 2 (2014): 305-324, p. 311 ("A crucial attribute of rail technology is traffic density. Most recent studies have shown economies of traffic density; that is, lower costs per unit, all other things equal, the more tons (or passengers) of traffic that flow over a given route mile.").

[187] Chen (2026), p. 11 ("Each railroad company incurs fixed operational costs, including administrative and general overheads; thus, higher shipment volumes naturally generate economies of scale at the firm-wide aggregate level."). See also Daniel Coublucq, Marc Ivaldi, and Gerard McCullough, "The Static-Dynamic Efficiency Trade-off in the US Rail Freight Industry: Assessment of an Open Access Policy," *Review of Network Economics*, Vol. 17, No. 4 (2018): 267-301, p. 269 ("Some prospects of profits are necessary to motivate firms to make costly investment. Otherwise, a firm would not be able to recoup its fixed cost of investment.").

[188] Chen (2026), p. 11 ("[W]hen railroad firms consolidate shipments onto common network segments—routes that simultaneously serve multiple origin-destination markets within the same firm—the resulting increase in resource concentration (such as enhanced infrastructure maintenance, better scheduling, and improved route-level coordination) benefits all traffic traveling through these segments.").

away from or abandon certain routes, the resulting loss of service reduces these economies of scope, requiring traffic to be rerouted and increasing average transportation costs.

2. Applicants' analyses show that the Proposed Transaction would reduce volumes for competing carriers

112. Applicants' own analyses indicate that the Proposed Transaction would cause an immediate reduction in traffic volumes for non-merging carriers, decreasing traffic volume on their networks. Applicants estimate that the merger will result in rail-to-rail diversions of approximately "206,000 carloads and 261,000 containers annually of existing business that currently moves on other railroads[,]" across general merchandise, intermodal, bulk, and automotive traffic.[189] Dr. Israel estimates that rail-to-rail diversions amount to "{{[redacted]}} percent (of divertible carloads or units) for merchandise traffic, {{[redacted]}} percent for bulk traffic, {{[redacted]}} percent for automotive traffic, and {{[redacted]}} percent for intermodal traffic."[190] As noted by Mr. Hunt, most of this traffic would be diverted from CSXT and BNSF.[191] For example,

- Mr. Hunt estimates that almost 100% of the nearly {{[redacted]}} BNSF carloads shipped via interline routes in 2023 from {{[redacted]}} would be diverted to a combined UP/NS, post transaction.
- Mr. Hunt estimates that more than half of the {{[redacted]}} carloads CSXT shipped via interline in 2023 from {{[redacted]}} would be diverted to a combined UP/NS, post transaction.[192]

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[189] Hunt VS, p. 67.

[190] Israel VS, ¶ 140.

[191] Hunt VS, Exhibit 6-2. I understand a Verified Statement submitted by Mr. Baranowski and Mr. Zebrowski addresses Mr. Hunt's underlying model and generally finds that Mr. Hunt's estimates understate rail-to-rail diversions. Verified Statement of Michael R. Baranowski and Nathaniel S. Zebrowski, Union Pacific Corporation, et al. – Control – Norfolk Southern Corporation, et al., STB Docket No. FD 36873, November 18, 2026, (hereinafter, "Baranowski and Zebrowski VS"). When I use the phrase "I understand" and then cite a document or Verified Statement, that means that I understand that the cited material will contain the relevant content.

[192] To calculate these numbers, I aggregate Mr. Hunt's projected carload losses for BNSF and CSXT due to rail-to-rail diversions. Total carloads for BNSF (CSXT) in the directional corridor in the example reflect aggregation across all routes involving BNSF (CSXT) within the same corridor, inclusive of routes for which Mr. Hunt does not project diversion. See my workpapers.

113. This loss of volume likely represents only a fraction of the potential effects of the transaction on the rail network. The relevant competitive effect extends beyond the revenue associated with the 467,000 diverted units.[193] Because of economies of scale and scope, a reduction in volume on one corridor can raise the effective cost of serving other corridors of the non-merging carrier's routes. By reducing the traffic volume of competing rivals such as BNSF and CSXT on a given corridor, the Proposed Transaction can weaken the incentive of those rivals to maintain service quality or expand investment not just on the corridor that loses traffic, but also on all those others that connect to it. This can, in turn, reduce competitive pressure on the combined UP/NS network and result in harm to shippers as well as a harm to competition.

3. The loss of volume for non-merging carriers can result in reduced quality of service and lower investments that can negatively impact the rail network

114. Applicants' experts ignore that harm to competition from foreclosure can occur due to the network nature of the railroad industry.[194] The intuition is simple. Suppose that for a non-merging carrier offering services in corridor O-D the Proposed Transaction creates a substantial diversion of volume to a combined UP/NS. Because of economies of scale and scope, the non-merging carrier will likely find it optimal to reduce the overall quality of service (e.g., reduced scheduling or less reliable service) and lower investments (e.g., track maintenance, container cars, bridges, and stations) in that corridor. If the loss of volume is sufficiently large, it may even cease to offer those services at all and exit such corridors.

115. Because of the network nature of the rail freight industry, the decision to not invest, lower quality, and even to exit will affect all shippers and routes that are connected to the directly impacted O-D corridor.[195] For example,

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[193] Hunt VS, Exhibit 6-1.

[194] Israel VS, ¶¶ 98, 105.

[195] Dr. Israel cites Chen (2026) as showing that rail mergers from 1985 to 2005 were pro-competitive (on balance). Supplemental Verified Statement of Mark A. Israel, Union Pacific Corporation, et al. – Control – Norfolk Southern Corporation, et al., STB Docket No. FD 36873, July 17, 2026 (hereinafter, "Israel Supplemental VS"), ¶ 59. However, Chen (2026) specifically recognizes the negative effect a merger can have on other railroads through network effects. Chen (2026), p. 18 ("I find that non-

- Shippers of the non-merging carrier relying on services at O or at D may face a reduction in the quality of those services in those locations, such as less reliable or frequent trains.
- Shippers on corridors for which O-D was a bridge segment (i.e., corridors of the form O'-O-D-D') may now have to search for different alternatives to move their products from O' to D' given reductions in quality of service in the O-D bridge segment. In the event of total exit from the O-D corridor, the non-merging carrier may offer alternative routes to those customers, presumably longer and more costly than before.
- Shippers that established plant sites at O or D because of access to railroad competition may eventually have no more than one alternative, losing the level of rail competition they aimed to benefit from when they decided to install their sites in those geographies.

116. These potential harms have also been recognized by regulators.[196]

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merging competitors reallocate their resources away from such regions in equilibrium. Assuming all other factors remain constant, when the merged firm's costs decrease in a given market, its market share in that market will increase. Consequently, the competitors' allocated resources to that market will have reduced utilization. This leads to a decrease in the competitors' marginal return on capital in that market, prompting them to reallocate their resources to other markets. When resources are moved away, the shipment cost of non-merging competitors will further increase in those markets. This results in further increases in the local market share of the merged firm."). Neither Dr. Bailey nor Dr. Israel account for the negative effect the proposed merger could have on other railroads through network effects, even though the Proposed Transaction is larger and the potential for foreclosure greater than in prior rail mergers.

[196] 2023 Merger Guidelines, pp. 17-18 ("Rivals or potential rivals that face the threat of foreclosure, or the risk of sharing sensitive information with rivals, may reduce investment or adjust their business strategies in ways that lessen competition. Firms may be reluctant to invest in a market if their success is dependent on continued supply from a rival, particularly because the merged firm may become more likely to foreclose its competitor as that competitor becomes more successful. Firms may use expensive strategies to try to reduce their dependence on the merged firm, weakening the competitiveness of their products and services. Even if the merged firm does not deliberately seek to weaken rivals, rivals or potential rivals may fear that their access will be limited if the merged firm decides to use its own products exclusively. These effects may occur irrespective of the merged firm's incentive to limit access and are greater as the merged firm gains greater control over more important inputs that those rivals use to compete."); p. 19 ("A merger may create or enhance barriers to entry or expansion by rivals that limit the capabilities or competitive incentives of other firms. … Scale economies and network effects can serve as a barrier to entry and competition. Depriving rivals of access to scale economies and network effects can therefore entrench a dominant position.").

4. The direct link between projected output and investment levels is a reality in the rail freight industry

117. The direct relationship between investment levels and expectations about volume of traffic in the rail industry is almost axiomatic. For example, this link is repeatedly featured in the Applicants' submission:

> "The consolidation of UP and NS operations will require capital expenditures for various purposes, including, among other things, increasing capacity of certain lines and yards. Applicants expect to invest more than $2 billion to implement the proposed transaction, primarily to add and extend sidings and expand intermodal terminals and to integrate UP and NS information technology systems. These investments will allow Applicants to accommodate the traffic attracted to the merged system by their seamless, single-line service offerings."[197]

> "In the UP/NS merger, certain traffic gains will depend in part on capital expenditures, including projects that will increase the capacity of the main line and yards. … Applicants estimate that UP/NS will spend approximately $2.0 billion in the first three years in capital investment in support of the merger. UP/NS will invest $959.9 million to enable Growth Plan traffic volumes described in the Operating Plan."[198]

> "In total, Applicants' plan includes investment of approximately $923 million to increase capacity and make other improvements on main lines and in yards and terminals to integrate UP and NS operations. … To accommodate projected merger-related traffic growth reflected in the Growth Plan, Applicants anticipate that the combined railroad will invest approximately $480 million on main lines where train counts are projected to increase."[199]

118. These statements illustrate the simple fact that when volume is anticipated to grow, rail carriers are willing to invest to support such growth. These investments, in turn, benefit both the corridors where they are made and the network as a whole, especially the parts of the network

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[197] Amended Railroad Control Application, Vol. 1, p. 59.

[198] Verified Statement of Grant Janke, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, September 4, 2026, ¶¶ 11-12 (notes omitted).

[199] Joint Verified Statement of Eric Gehringer and John F. Orr, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, September 4, 2026, ¶¶ 275, 279.

surrounding the routes where investments are made. Indeed, although the investment may take place to benefit a specific route, that investment might also benefit other routes in the network.

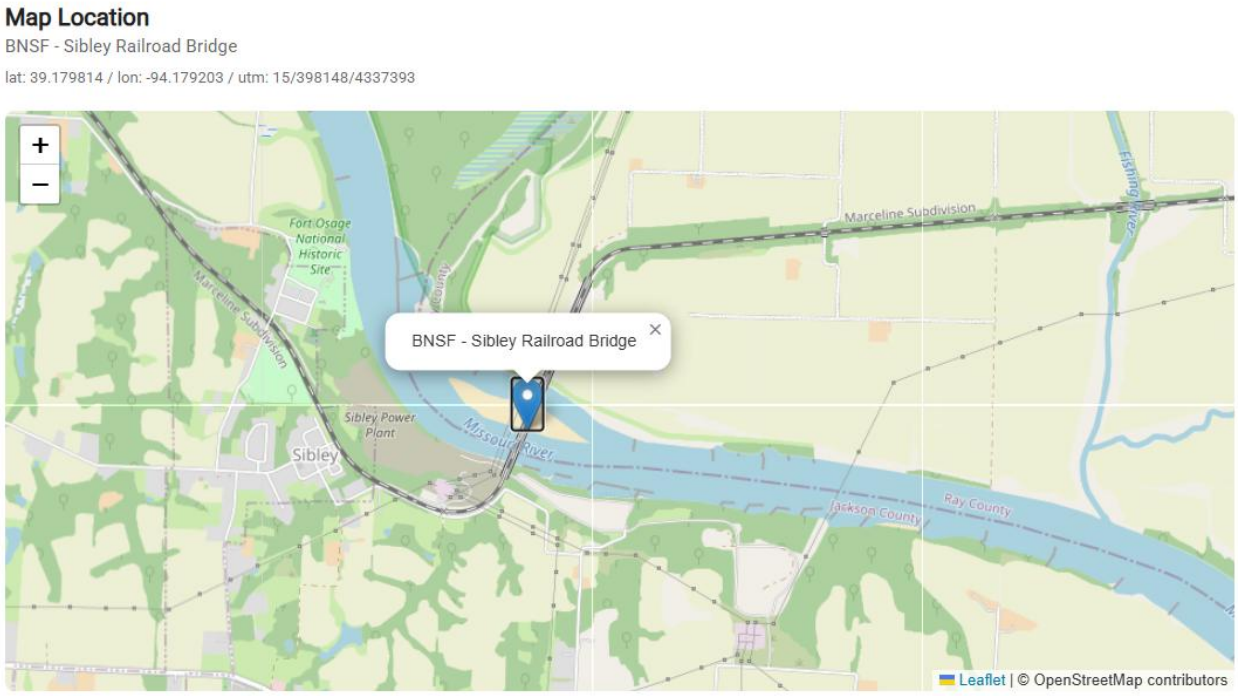
(a) The case of BNSF's Sibley bridge

119. To illustrate how traffic volume impacts investments, consider the case of a segment in BNSF's Southern Transcon route—an important route for BNSF's intermodal business.[200] Over the 210-mile stretch known as the Marceline subdivision that connects Kansas City, MO and Fort Madison, IA, the Sibley bridge over the Missouri River runs trains on a single track for 1.5 miles.[201]

[200] Katie Farmer, "Resiliency and Capacity Create Top-Line Growth," *Railway Age*, April 9, 2025, https://www.railwayage.com/freight/class-i/resiliency-and-capacity-create-top-line-growth/ ("At BNSF, our Southern Transcon is the busiest route along our vast 32,500-mile network, stretching 2,200 miles from Southern California to Chicago. In fact, 70% of BNSF's intermodal volume touches the Southern Transcon.").

[201] National Transportation Safety Board, "CHICAGO DIV – No. 1 – October 2, 2019 – Marceline Sub (Updated 1/11/22)," January 11, 2022, https://data.ntsb.gov/Docket/Document/docBLOB?ID=15829382&FileExtension=pdf&FileName=Timetable%20No.%202%20-%20Chicago%20Division%20-%20Marceline%20Sub-70R0M73-Rel.pdf; BNSF Railway Company, "BNSF Announces Plan for 2023 Capital Investments," January 19, 2023, https://www.bnsf.com/news-media/news-releases/newsrelease.page?relId=bnsf-announces-plan-for-2023-capital-investments ("On its Southern Transcon route between the West Coast and Midwest, BNSF will support traffic growth by beginning the construction of a second bridge over the Missouri River at Sibley, Missouri, completing double track for one of the last segments of single track along the Southern Transcon.").

Figure 17: Sibley Bridge – Sibley, MO[202]



120. In January 2023 BNSF announced its capital investment plan for the year, which included the construction of a second, parallel mainline bridge that would upgrade the single-track segment to double tracks.[203] I understand that as of the spring of 2022, BNSF had estimated an investment of {{[redacted]}} on this project, including {{[redacted]}} for 2022-2024.[204] These projections are consistent with investments related to a notable increase in intermodal

[202] BridgeHunter.com, "BNSF – Sibley Railroad Bridge," https://www.bridgehunter.com/bridges/72334.

[203] Staff, "BNSF announces 2023 capital plan," *Trains*, January 20, 2023, https://www.trains.com/trn/news-reviews/news-wire/bnsf-announces-2023-capital-plan/. See also Surface Transportation Board, "Rail Infrastructure Project Reports: BNSF," 2023, https://www.stb.gov/wp-content/uploads/BNSF-Infrastructure-Reports-2023-1.pdf.

[204] I understand this information is included in a separate Verified Statement, offered by BNSF's Chief Operating Officer, Craig Morehouse. Verified Statement of Craig Morehouse, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, November 18, 2026 (hereinafter, "Morehouse VS").

traffic in 2021, although those volumes subsequently fell by 2023.[205] Of the {{[redacted]}} BNSF expected to invest in 2022-2024, I understand {{[redacted]}} was actually spent on the project.[206] This example is consistent with a link between expected traffic volumes and investments – when BNSF expected intermodal volumes to be high, the company considered investments to advance the project; when those expectations did not materialize, BNSF reduced investment.

121. Overall, the potential for traffic shifts as a result of the Proposed Transaction is notable.[207] Those traffic losses for competing Class I carriers have the potential to impact their levels of service and their incentives to invest, which are exacerbated by the network nature of the rail industry. These losses in turn have adverse implications for competition. Applicants do not analyze whether this harm is likely or whether its impact could be substantial. They simply ignore these traffic shifts, even when the scale of the Proposed Transaction suggests those shifts are likely to occur and may potentially impact at least some parts of the Class I network.

C. TRAFFIC SHIFTS ASSOCIATED WITH THE RECENT CPKC MERGER ARE INFORMATIVE ABOUT THE IMPACT OF MERGERS ON INTERLINING BETWEEN CLASS I RAILROADS

122. In this section, I evaluate evidence of traffic shifts from the recent (2023) CPKC merger to inform the potential impact of end-to-end transactions on interlining between Class I railroads.[208] While the effects of the CPKC merger may still be playing out throughout the rail network, the traffic data show that there have already been noticeable reductions in interlining between CPKC and other railroads following the CPKC merger. Given the network nature of the

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[205] Based on annualized data, from 2014 to 2023, annual rail freight intermodal traffic reached its second highest level in 2021 but its lowest level in 2023. U.S. Bureau of Transportation Statistics, "Rail Freight Intermodal Traffic," *Federal Reserve Bank of St. Louis*, November 1, 2026, https://fred.stlouisfed.org/series/RAILFRTINTERMODAL. In early 2022, industry commentators noted that 2021 was the "'second-best' year for US intermodal traffic" only behind 2018. Joanna Marsh, "2021 'second-best' year for US intermodal traffic," *Freight Waves,* January 7, 2022, https://www.freightwaves.com/news/2021-second-best-year-for-us-intermodal-traffic.

[206] I understand this information is also included in the Morehouse VS.

[207] See Section IV.B.2.

[208] Canadian Pacific Kansas City, "Canadian Pacific and Kansas City Southern Combine to Create CPKC," April 14, 2023, https://investor.cpkcr.com/news/press-release-details/2023/Canadian-Pacific-and-Kansas-City-Southern-combine-to-create-CPKC/default.aspx.

industry, this reduction has had impacts on rival railroads by altering their traffic volume on certain routes, potentially affecting present and future competition. I also note that the CPKC merger presented a lower risk of harm associated with vertical aspects than the Proposed Transaction does, as it affected fewer corridors throughout the rail network.

1. There has been a significant reduction in interlining between CPKC and other Class I railroads less than two years after the CPKC merger

123. To analyze changes in interlining activity associated with the CPKC merger, I first compare CPKC interline volumes with the total interline volume among the other five Class I railroads (exclusive of CPKC).[209] This analysis shows that there have been substantial reductions of interlining volumes since the CPKC merger. I focus my analysis on a comparison of carloads in the years 2019 (the first year I have data for), 2022 (the last full calendar year prior to the merger completion date), and 2024 (the first full calendar year after the merger). I show in Figure 18 that from 2019 to 2022, CPKC interline volumes {{[redacted]}}, while interline volumes among the other five Class I railroads similarly {{[redacted]}}. However, these trends diverge after the CPKC merger, with the number of CPKC interline carloads from 2022 to 2024 {{[redacted]}}, in stark contrast with interlines among the other five Class I railroads, which {{[redacted]}}.

[209] I consider CPKC interline volumes with other Class I railroads to be traffic associated with CPKC (inclusive of CP/KCS/KCSM pre-merger and additionally CPKC post-merger) interlined with any of the other five Class I railroads (BNSF, CN, CSXT, NS, and UP).

Figure 18: Class I Interline Carloads Before and After CPKC Merger {{



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124. These trends are particularly pronounced for intermodal traffic (see Figure 19), where the CPKC interline volumes with other Class I carriers {{ }} from 2022 to 2024.

Figure 19: CPKC Interline Intermodal Partners Pre- and Post-Merger (2022 and 2024) {{



}}

125. Additionally, consistent with the discussion of network effects in the rail industry that I explained in the previous section, a reduction in interline activity at a given gateway implies a loss of traffic volume that could extend to other routes and gateways as a result of a merger. Consider the case of a shipment originated by BNSF that interlines with CPKC at Kansas City and then subsequently travels south to the Laredo gateway in order to reach a Mexican destination. To the extent that CPKC and BNSF no longer agree on business terms to keep this interline partnership, interline activity would be reduced across both the Kansas City gateway (direct effect) and Laredo (indirect effect).

126. I examine the extent of these network effects by looking at CPKC interline volumes directly (interlined at) and indirectly (moving through but interlined somewhere else) associated

with Laredo (an important gateway to the CPKC merger proceeding) in Figure 20.[210] While the carloads CPKC directly interchanged at Laredo with other Class I railroads {{[redacted]}} from 2022 to 2024, the number of carloads that CPKC interlined with any other carrier that passed through Laredo {{[redacted]}}, consistent with a nearly two-times effect on the network than the carloads interchanged directly at Laredo.[211]

[210] CPKC Decision, pp. 48-56.

[211] I understand the Morehouse VS discusses BNSF's views on the company's experience regarding interlining at Laredo post approval of the CPKC merger. In particular, I understand Mr. Morehouse describes BNSF's switch to Ferromex as an interline partner (and to Eagle Pass as a gateway) for Mexico-U.S. traffic has implied longer routes and other operational hurdles such as limits to train length, which require additional resources to move traffic. Moreover, I understand that Mr. Morehouse describes that, as a result of the shift from Laredo to Eagle Pass, BNSF no longer invests in Robstown (the interchange directly associated with the Laredo Gateway). Morehouse VS.

Figure 20: CPKC Carloads Interchanged with Interline Partners at Laredo, TX {{



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127. In general, these reductions in interlining are consistent with expectations that foreclosure would lead to a reduction in traffic on certain routes in a railroad network as a result of an end-to-end merger. This is also consistent with prior statements made by railroads regarding areas with risk of foreclosure made during the CPKC proceeding.[212]

2. The Proposed Transaction has the potential to result in more pronounced effects on interlining than the CPKC merger

128. The impact of the CPKC merger on interline traffic patterns discussed in the previous section offers a preview of what would be reasonable to expect from the Proposed Transaction.

[212] UP Comments (CPKC), Section II; Comments of BNSF Railway Company, Canadian Pacific et al.—Control—Kansas City Southern et al., STB Docket No. FD 36500, February 28, 2022, Section 4.

However, there are reasons to believe those shifts are only directionally informative and, at most, a lower bound to the changes that would arise from the Proposed Transaction.

129. First, the most recent data in my CPKC interline analysis are for 2024, which means the data reflect changes up to 20 months after the approval of the CPKC merger. Given the time it takes to integrate two rail carriers and, given the existence of medium- to long-term contracts between shippers and railroads, it is reasonable to expect that certain effects will take longer than 20 months to materialize. For example, CPKC merged their IT systems only in May 2025 (after the last month I have data), which led to widespread service problems throughout their network.[213] Second, CPKC does not have the ability to reach as many origins and destinations in the U.S. as do UP and NS, making it dependent on other carriers and their interline partnerships. A combined UP/NS can reach more origins and destinations than CPKC, thus allowing for even greater reductions in interline traffic.[214]

D. APPLICANTS' ARGUMENTS IMPLY THE RAILROAD INDUSTRY SHOULD BE A NATURAL MONOPOLY

130. In his discussion of the potential benefits of the merger, Dr. Israel explains that independent railroads operating complementary networks cannot coordinate their operations as efficiently as a merged carrier would.[215] One reason is the presence of externalities. In the context of the rail freight industry, when independent railroads make decisions on, for example, pricing, scheduling, and investments to maximize their profits, they do not take into account the effects of those decisions on the profits of competing or complementary carriers. As a result, suboptimal outcomes arise. This is exactly what one can expect in a network industry.[216]

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[213] Bill Stephens, "CPKC's IT stumble casts doubt on further Class I mergers: Analysis." *Trains.com*, August 6, 2025, https://www.trains.com/pro/freight/class-i/cpkcs-it-stumble-casts-doubt-on-further-class-i-mergers-analysis/.

[214] A combined UP/NS would be several times larger than CPKC, a scale that suggests the potential for a stronger impact on traffic patterns. Per Dr. Bailey, in 2024 the sum of UP and NS's gross freight revenue was more than 10 times larger than the value for CPKC. Bailey VS, Exhibit 3 ($3.6B v. $36.3B).

[215] Israel VS, Section IV.A.1.

[216] Carlton and Klamer (1983); Carlton and Picker (2014).

131. Dr. Israel explains this problem cannot be solved with sufficiently rich contracts because, in practice, "it is impossible to write a complete contingent contract that specifies how the two railroads must manage their interline business on a day-to-day basis."[217] As Dr. Israel puts it, "only a merger—with its full alignment of incentives—can solve this problem" leading to benefits that "cannot be obtained by other means."[218]

132. One important example of these issues is related to investment incentives. Dr. Israel explains that the investment incentives of firms in a vertical relationship may not be aligned and, as a result, are suboptimal.[219] If one railroad invests to generate more traffic, that could result in an interline railroad making higher profits from the additional business. That benefit to the interline railroad will not be captured by the investing railroad, leading to investment volumes that are lower than those that would be observed had those two railroads been vertically integrated. The misalignment of incentives not only affects investment decisions; it also affects pricing decisions (double marginalization) and operating decisions (scheduling conflicts).[220]

133. Dr. Bailey also claims that a merger between carriers offering complementary goods or services aligns incentives by allowing the common owner to internalize externalities.[221] In Dr. Bailey's opinion, the benefits from integration are also unlikely without a merger.[222]

134. Taken at face value and followed to their logical implications, these arguments suggest that, given the network nature of the rail industry, there should be one giant railroad firm capable of (i) internalizing all these externalities, and (ii) delivering the optimal outcomes that only vertical integration can achieve. But while Dr. Israel and Dr. Bailey tout the private benefits of vertical integration on the merging carriers stemming from internalization of the positive externalities, they completely ignore the negative externalities for rival carriers, which can over

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[217] Israel VS, ¶ 97.

[218] Israel VS, ¶¶ 97, 99.

[219] Israel VS, ¶ 104.

[220] Israel VS, ¶¶ 101-104.

[221] Bailey VS, ¶ 52.

[222] Bailey VS, Section 3.1.4.

time harm competition. Although one might speculate that having one railroad in the entire United States would facilitate coordination, it would also reduce competition.

135. In a network industry, such as railroads, there must be a balancing of the efficiency gains to one railroad network versus the harm created to other railroads' networks.[223] One can choose to have one railroad that supposedly internalizes all the externalities that Dr. Bailey and Dr. Israel discuss and try to regulate it or, alternatively, one might instead prefer a different option featuring a few railroads that, while not internalizing all the externalities in the railroad industry, preserves some level of competition, perhaps assisted by some limited amount of regulation.[224]

E. DR. ISRAEL'S CONTENTION THAT THE PROPOSED TRANSACTION POSES NO RISK OF MATERIAL HARM TO COMPETITION FROM VERTICAL FORECLOSURE IS INSUFFICIENTLY SUPPORTED

136. Dr. Israel opines that the Proposed Transaction does not raise any significant concerns with respect to foreclosure.[225] He arrives at this conclusion through a combination of (i) theoretical arguments that, because of being based on unsupported assumptions, only appear to address whether the main theories of foreclosure apply to the railroad industry; and, (ii)

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[223] Carlton and Klamer (1983), p. 446 ("Efficiency may require coordinated action, but coordinated action can stifle competition[.]").

[224] Carlton and Picker (2014), pp. 44-45 ("In such industries, the regulator needs to administer the price and quality of the interconnection. If two firms compete in the end market and one competitor supplies the other a key input, the regulator must worry that the supplier will misuse its control over the input to harm his rival. This concern vanishes if the regulated firms are not allowed to vertically integrate. Moreover, when regulated firms must interconnect, the price of interconnection will typically be regulated to be above marginal cost. If so, there will be an efficiency motivation for a firm to vertically integrate to avoid double marginalization. But such mergers would eliminate firms and ultimately lead to one firm. Regulators might prefer to avoid this outcome to prevent one firm from becoming a potent political force in regulatory battles.").

[225] Israel VS, ¶ 90. Dr. Israel's analysis is limited to interline shipments in which there is a sole-served segment and competition on the other (i.e., "open to close" or "close to open" shipments). Israel VS, Appendix A, p. A-1 ("I discuss the scope for harm in cases 2, 3, and 5, which are the situations where STB has expressed some concern about possible foreclosure."). Dr. Israel adopts a position similar to that of Dr. Majure in the CPKC proceeding, one in which the existence of competition is enough to discipline any potential exercise of market power by the merged carrier. Majure VS, ¶ 25; Israel VS, Appendix B, pp. B-2 and B-3.

empirical arguments that explore questions related to foreclosure in cases in which theoretical prescriptions are ambiguous.[226] I summarize Dr. Israel's arguments as follows:

- Dr. Israel claims that "usual theories of foreclosure simply do not apply" for up to {{[redacted]}} of carloads for which rail rates are set pursuant to negotiations which "generally result in 'non-linear' contracts that specify an amount that will be charged for a given amount shipped."[227] Dr. Israel claims that because he assumes shippers are able to negotiate non-linear contracts ("NNLC") that are efficient post-merger and no worse than the efficient contracts they negotiate pre-merger, shippers will not be harmed by the Proposed Transaction.[228]
- Dr. Israel also discusses instances when shippers are price-takers and do not engage in negotiations with the rail carriers (i.e., "without negotiated non-linear" pricing):
    - First, Dr. Israel claims that shippers purchasing rail services using linear pricing terms (such as by purchasing the products offered by the interline carriers in separate Rule 11 transactions) would not be harmed by the transaction because the merged carrier will charge a rate no greater than the sum of the distinct pre-merger rates.[229]
    - Second, Dr. Israel claims that when shippers buy under linear through rate mechanisms, the economic theory is ambiguous in terms of foreclosure-related harm to shippers, but his empirical tests rule out this type of harm.[230]

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[226] Israel VS, Sections III.A-III.E.

[227] Israel VS, ¶ 14. See also Israel VS, ¶ 21.

[228] Israel VS, ¶¶ 14, 17, Section III.A.

[229] Israel VS, ¶ 14, Section III.B.

[230] Israel VS, Sections III.C-III.D. See also Israel VS, ¶ 41 (Alluding to the one-lump theory but without naming it, Dr. Israel explains that "[a] long-standing response to these concerns has been that the sole-serving carrier can charge the monopoly rate for the movement and earn the monopoly profit *prior to a merger*." Thus, any economic theory of foreclosure suitable for this precise environment "*has to explain why the sole-serving carrier was not earning monopoly profits pre-merger, how the merger will alter that situation[.]*" (emphasis in original). In particular, Dr. Israel explains, if it is true that the monopolist cannot charge the monopoly rate then two observations have to be valid: (i) shippers prefer to get their rates from the competitive end (otherwise the monopolist would be able to charge the

137. In the remainder of this Section IV.E, I respond to Dr. Israel's arguments. I find Dr. Israel's general theoretical discussion to be based on assumptions that do not match the realities of the railroad industry. Moreover, I find that Dr. Israel's empirical arguments are without basis and driven by unsupported assumptions that, when modified, cast doubt on Dr. Israel's conclusions.

1. Dr. Israel's analysis of foreclosure concerns on shipper-railroad relations ruled by "negotiated non-linear contracts" is based on assumptions that do not match the realities of the railroad industry

138. Dr. Israel claims that theory alone can rule out concerns regarding harm for up to {{[redacted]}} of interline movements involving UP and NS as they are likely to be made under negotiated, non-linear contracts, which he claims are efficient both pre- and post-merger.[231] I find Dr. Israel's blanket claim that harm is not possible when contracts are negotiated to be not credible.

139. Dr. Israel appears to be asserting that most contracts in the railroad industry are "efficient."[232] Yet he recognizes elsewhere that contracts in a rail network are complicated to

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monopoly rate), and (ii) those rates should be lower than the ones obtained from the monopolist. Dr. Israel proposes empirical tests to evaluate both observations and concludes that none of them hold, lending credence to the notion that the conditions for foreclosure in this narrow set are simply not present.)

[231] Israel VS, ¶¶ 17, 21. Even though Dr. Israel says that up to {{[redacted]}} of interline movements involving UP and NS are on NNLCs, he does not offer a formal definition of NNLCs (e.g., Dr. Israel claims they are cases in which "shippers are not 'price takers,'" but instead negotiate terms with railroads; contractual arrangements are "sophisticated," generally featuring "non-linear" pricing terms such as volume commitments or rates determined as a function of shipped volumes. Dr. Israel also notes he is "not claiming that every contract, private quote, or other non-tariff arrangement reflects negotiation between shippers and railroads over non-linear pricing terms."). He further notes that "[his] experience in the industry, the complexity of the contracts, and the fact that even private quotes often take the form of a given quantity at a given price—which is a form of non-linear pricing since it specifies both price and quantity, rather than a per-unit price at which any amount can be shipped—all indicate that a very large percentage of these cases reflect negotiated non-linear contracts." Israel VS, ¶¶ 17, 20, 21, 22, n. 22.

[232] Israel VS, ¶ 17.

negotiate.[233] Thus, it is unclear to me why Dr. Israel can assume the emergence of efficient contracts when shippers negotiate with railroads in a network environment in which high transaction costs can make it difficult to determine how an efficient contract should be agreed upon. Simply put, Dr. Israel extols the benefits of internalizing externalities in a network industry through merger because it is difficult to do so by contracts. Yet, he then claims that the contracts involving independent railroads to serve a customer will be efficient and therefore there should be no worries about foreclosure harming competition.

140. As Dr. Bailey recognizes, achieving complete efficient market-based coordination through contracts is not a given. As she notes, it is unlikely in an "'incomplete' contracting environment" that the efficient outcome can be achieved.

> "[E]fficient coordination is more difficult when the environment is sufficiently complex that parties cannot feasibly specify in advance all relevant states of the world or prescribe optimal actions for each. This is referred to as an 'incomplete' contracting environment because it is impossible for agents to explicitly write out all possible contingencies for either a contract or informal agreement. This means that unforeseen circumstances not covered by the agreement can arise, in which case the parties will need to negotiate ex post over their respective obligations and responses. … [W]hen these unforeseen circumstances arise, coordination suffers further when parties lack reliable mechanisms to resolve disputes over their respective obligations[.]"[234]

141. Dr. Bailey's statement is in tension with Dr. Israel's theoretical assumption that efficient outcomes are achievable through the sophisticated negotiations behind NNLCs between shippers and railroads. That is, Dr. Israel cannot explain why in an environment in which contracts between railroads cannot be complete, contracts between shippers and railroads can be so and

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[233] Israel VS, ¶¶ 13 (stating that the merger will create a "more efficient rail network"), 14 (When discussing contracts between railroads, Dr. Israel notes that "[c]ontracts cannot address the coordination problems created by poor incentives because many of one railroad's actions and activities are unobservable and/or not verifiable by the other railroad. Unobservable actions imply that contracts cannot prescribe all the actions required for optimal coordination of complementary networks. A contract would have to specify all actions to take in any possible future state of the world, an obviously impossible task."). It is unclear why Dr. Israel thinks these issues are relevant for negotiations between railroads but not for negotiations between railroads and shippers.

[234] Bailey VS, ¶ 69.

guarantee efficient outcomes unchanged by a merger. Such an assumption is particularly ill suited for a network industry.[235]

142. In addition, even assuming no change in the total surplus to be split between shippers and carriers after the merger, Dr. Israel has not explained why a shipper would get the same share of this surplus after the merger (i.e., why they would have no change in bargaining leverage).[236] In the economics literature of bargaining, when two parties negotiate, they consider the expected surplus of the negotiation, the outcome they would obtain if negotiations do not succeed, and the relative strength of the negotiation power for each party. These factors have the potential to change after the Proposed Transaction given that a combined UP/NS could have increased scale (and opportunities such as servicing closed facilities) that it could leverage (i.e., bundle) in contract negotiations.[237] I note that the possibility of bundling is relevant to the Proposed Transaction given that both UP and NS discuss bundling practices in their internal documents.[238]

2. Dr. Israel's analysis of interlining is flawed

143. Dr. Israel claims that interline shipments between UP and NS will benefit from the merger because of the elimination of the "Cournot complements" problem.[239] I show in this Section IV.E.2 that academic evidence does not support such a blanket statement.

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[235] Dr. Bailey notes that coordination suffers when unforeseen circumstances arise and parties lack reliable mechanisms to resolve disputes over their respective obligations. Bailey VS, ¶ 69.

[236] Israel VS, Appendix A, p. A-2 ("Under the standard bargaining solution used in the economic literature, the Nash bargaining solution, UP and the shipper will split the surplus equally.").

[237] Allan Collard-Wexler, Gautam Gowrisankaran, and Robin S. Lee, "'Nash-in-Nash' Bargaining: A Microfoundation for Applied Work," *Journal of Political Economy*, Vol. 127, No. 1 (2019): 163-195, p. 174.

[238] {{[redacted]}}.

[239] Israel VS, ¶¶ 33, 35.

(a) Empirical evidence from the rail industry is inconsistent with a blanket statement that all interline shipments will benefit from a merger of complements

144. The Cournot complements problem refers to situations in which independent sellers of complementary products or services (such as the railroads involved in an interline shipment under Rule 11 terms) charge prices that, in aggregate, exceed the price that a monopolist would charge if it had control of all pricing decisions.[240] While it is true that end-to-end mergers offer a solution to the Cournot complements problem, if the problem exists, economists have also demonstrated empirically that in the rail industry it is not necessarily true that interline rates are everywhere higher than the rates a merged railroad would set.

145. This result is not surprising when analyzed through the lens of economic theory which postulates that, absent transaction costs, economic agents acting jointly are able to negotiate terms that leave them in a better position than when they are acting separately.[241] With regard to interlining in the rail industry, this theory would say that if the two railroads (and the shipper) involved in an interline shipment featuring independent pricing can negotiate efficiently, then the combined rate would not necessarily be higher than the one a monopolist would charge for that interline movement, all else equal (specifically, one must abstract from network effects which can create complexities in figuring out the network effects).

146. Alexandrov et al. (2025) analyze the effect of mergers on pricing by asking whether a merger lowers rates on some previous interline routes.[242] Consistent with their findings of no

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[240] This problem arises due to pricing externalities between complementary products. When products are complements, each seller has the incentive to increase the price of the product they sell paying no attention to the resulting decline in sales of the complementary product(s). Given these incentives, each individual price is therefore higher than the one that a monopolist of all products would charge given the monopolist's ability to internalize the pricing externalities among the complementary products.

[241] Ronald H. Coase, "The Problem of Social Cost," *The Journal of Law and Economics*, Vol. 3 (1960): 1–44.

[242] Alexei Alexandrov, Russell Pittman, and Olga Ukhaneva, "Double marginalization in the pricing of complements: The case of US freight railroads," *Journal of Economics & Management Strategy*, Vol. 34, No. 2 (2025): 403-427 (hereinafter, "Alexandrov et al. (2025)"). It appears that the data used in this study do not explicitly exclude any interline pricing mechanism, which would mean it would include both negotiated rates and non-negotiated rates, inclusive of Rule 11 rates ("rebills"). Alexandrov et al. (2025), p. 408.

statistically significant changes in rates on these routes after the merger for certain commodities, they claim that "the price of shipping with two interconnecting firms is not significantly higher than the price of shipping with one[,]" adding that an "end-to-end railroad merger would not be needed to fix a Cournot or double-marginalization-like pricing issue[.]"[243] The evidence discussed in this paper casts doubt on Dr. Israel's blanket statement that "shipments using Rule 11 (without negotiated non-linear pricing) benefit from the merger[.]"[244]

(b) Dr. Israel rules out the possibility of harm to interline shipments without proper basis

147. Dr. Israel acknowledges that a recent academic article by Dr. Kadner-Graziano describes the possibility of harm arising from a merger of complementary products.[245] Dr. Kadner-Graziano describes a theory of harm that depends on the assumption that "the merged entity can credibly commit to pure bundling" (i.e., to sell either both components or none at all), and in which the mechanism through which a merger can cause harm is through inducing exit of a competitor from the market, reducing competition, increasing prices, and harming consumers.[246]

148. Dr. Israel rules out the applicability of the theory offered in this article by stating that the merged entity would not be able to engage in the theory of harm discussed in this article—pure bundling—because "the merged carrier must provide a Rule 11 rate if the shipper requesting the

[243] Alexandrov et al. (2025), pp. 404, 418. See also Alexandrov et al. (2025), Section 6 (showing no effect of the BN-ATSF merger on average price of the affected routes for coal, grain, and wood and lumber.).

[244] Israel VS, ¶ 33.

[245] Israel VS, ¶ 36 (discussing Alessandro S. Kadner-Graziano, "Mergers of Complements: On the Absence of Consumer Benefits," *International Journal of Industrial Organization*, Vol. 89 (2023): 1-13 (hereinafter, "Kadner-Graziano (2023)").) See also Kadner-Graziano (2023), p. 1 ("[P]rofitable mergers of complements can cause unambiguous consumer harm.").

[246] Kadner-Graziano (2023), pp. 8-9. Dr. Israel notes that this theory of harm is "ill-suited" because it relates to entry, and for that to be relevant in the context of the railroad industry "one would have to believe that entry by railroads onto routes they do not otherwise serve is an important competitive consideration[,]" which is not the case. Israel VS, ¶ 37. However, the theory described by Dr. Kadner-Graziano is applicable to the decision to continue providing a given service, i.e., a decision whether to remain active in a corridor or otherwise exit. Thus, Dr. Israel's characterization of the theory as "ill-suited" is improper.

rate has arranged service from the competing railroad for the other leg."[247] I understand that Dr. Israel's interpretation of the obligations of a bottleneck carrier to provide a Rule 11 quote is incorrect. That is, I understand that if the merged carrier is able to provide end-to-end service then it does not have to provide a rate for a segment even if the shipper has arranged a contract with a carrier on the other segment of the movement. In other words, I understand the merged carrier does, in fact, continue to have the power to require a "bundle" if it can provide end-to-end transportation. Because a merged carrier is not subject to such an obligation to the extent it provides service from origin to destination, Dr. Israel is incorrect to reject the competitive concerns described in Kadner-Graziano (2023).

3. Dr. Israel's empirical tests to rule out the possibility of foreclosure in non-negotiated through-rate arrangements ignore relevant industry facts and are driven by unjustified data assumptions

149. After using theoretical arguments to dismiss foreclosure concerns for shippers subject to NNLCs and Rule 11 rates, Dr. Israel turns to two sets of empirical analyses, which he claims test whether standard foreclosure theories hold in the case in which shippers receive non-negotiated through rates from railroads on the competitive end.[248]

- In his first set of empirical analyses, Dr. Israel examines whether "[s]hippers … strongly prefer to get through rates from railroads on the competitive end, rather than railroads on the sole-served end[.]"[249]

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[247] Israel VS, ¶ 36. See also Israel VS, n. 28.

[248] Israel VS, ¶¶ 42-43 ("In general, theories of foreclosure—that is, explanations for why the sole-serving carrier was not earning the monopoly profit pre-merger—do not apply to situations where the shipper gets a price directly from the sole-served carrier. In those cases, the sole-serving carrier gets an input price from the 'upstream' railroads (those not facing the shipper directly) and, in turn, sets the final price to the shipper. In that situation, nothing stops the sole-serving carrier from setting the monopoly price (conditional on that input price). … Thus, potential theories of foreclosure come down to a single, narrow case—prices that are not part of negotiated non-linear contracts, are not Rule 11, and are not through rates set by the sole-served carrier but rather are through rates received from one of the railroads on the competitive end. On its own this says that the scope for potential foreclosure is quite narrow, as this describes a narrow sliver of all shipments. And critically, the possibility of foreclosure in this narrow case is just that, a possibility, and one with specific empirical predictions that can be tested. I do so, below, and show that they do not hold.").

[249] Israel VS, ¶ 44.

- In his second set of empirical analyses, Dr. Israel tests whether "[o]bserved prices when through rates come from the competitive end [are] lower than when the rates come from railroads on the sole-served end."[250]

150. Dr. Israel then claims that if neither condition holds then the theory of foreclosure is rejected.[251] As I explain below, this claim is wrong. The findings of Dr. Israel's first set of analyses are likely explained by a standard practice in the railroad industry rather than by a rejection of the theory of foreclosure. Further, the results of Dr. Israel's second set of analyses are not robust, as they depend on an unjustified data assumption about where certain customers obtain through-rate quotes.

(a) Dr. Israel's first set of analyses ignores a standard practice in the railroad industry and therefore cannot be used to test whether shippers favor obtaining through rates from downstream competitive carriers

151. Dr. Israel concludes from his first set of empirical analyses that "*shippers do not flock to getting through rates from a railroad on the competitive end*" and that "*[t]his is not consistent with a theory of foreclosure*[.]"[252] This conclusion, however, overlooks a well-recognized industry practice: shippers typically approach the originating railroad to obtain a quote for the through rate on a shipment.[253] Because the competitive (or sole-served) end of a given corridor may be either the originating or terminating end depending on the direction of traffic, Dr. Israel's finding is entirely unsurprising. Dr. Israel errs in interpreting his finding as being pertinent to a rejection of the theory of foreclosure when it is better explained by the standard industry practice. This point is illustrated in Figure 21, which shows that about {{[redacted]}} of the carloads in Dr. Israel's Figure 4 are from corridors where the sole-served end is the origin. Moreover, the figure shows that the railroad associated with the "price authority" for the movement (the variable Dr. Israel uses to determine which side the shipper deals with) is the same as the

[250] Israel VS, ¶ 44.

[251] Israel VS, ¶ 44.

[252] Israel VS, ¶ 51 (emphasis in original).

[253] Chen (2026), p. 12 ("The assumption that the originating railroad firm sets the price in joint-line services aligns with standard industry practice and documented regulatory evidence.").

originating railroad for {{[redacted]}} of carloads regardless of whether the origin or the destination of a shipment is the sole-served end.[254] The premise of Dr. Israel's first set of empirical analyses is therefore misleading because he ignores the fact that his results may be driven by standard industry practice.

Figure 21: Dr. Israel's Analysis of Pricing Arrangements on Routes with a Sole-Served and a Competitive Segment 2019 – 2024 by Price Authority Category {{



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(b) Dr. Israel's second analysis is not a test for foreclosure concerns and, even if otherwise accepted at face value, contains a data conflict that casts doubt on the validity of his findings

152. In his second set of empirical analyses, Dr. Israel finds "no statistical evidence that shippers negotiate lower rates when they get through rates from the competitive end of a

[254] Statistics consistent with this practice are also observed outside of vertical configurations involving a sole-served and a competitive segment. For example, for the "All Traffic" sample, if both ends of a shipment are sole served, {{[redacted]}} of carloads come from traffic where the price authority railroad is the originating end. If neither end is sole served, {{[redacted]}} of carloads come from traffic where the price authority railroad is the originating end. See my workpapers.

movement[.]"[255] I show that Dr. Israel's finding of no statistically significant pricing effect from these analyses cannot be used to dismiss concerns about foreclosure for several reasons.

153. First, Dr. Israel ignores that it would be in shippers' interest to eliminate pricing differences to the extent there are differences in rates quoted on one or the other end. Indeed, the lack of any price differences is consistent with the standard industry practice discussed in the prior section. Thus, a finding of no pricing effect in Dr. Israel's analyses cannot serve as a valid assessment of foreclosure concerns, contrary to Dr. Israel's claim.

154. Second, even if one were to accept his analysis as a valid assessment of foreclosure concerns (and one should not do that for the reasons I just explained), Dr. Israel's empirical findings are unreliable because they hinge on how he handles a conflict in the data. I find that when this data conflict is resolved using an alternative, reasonable approach, the analyses yield a positive result that, under Dr. Israel's own hypothesis (which itself is based on a flawed premise), would be consistent with the existence of foreclosure concerns. This data conflict involves a number of UP-NS interline shipments in which UP data identify UP as the price authority on a given through-rate movement, whereas NS data identify NS as the price authority on that same movement. Rather than acknowledging this data conflict, Dr. Israel simply assumes without justification that UP "owns" the price authority on those movements, an assumption that has material implications for his analysis.[256]

155. I test the sensitivity of Dr. Israel's empirical results to his assumption regarding the data conflict by reassigning price authority ownership to NS in instances in which NS is the

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[255] Israel VS, ¶ 64.

[256] In his processing of UP and NS traffic tapes data, Dr. Israel first generates a price authority ownership variable {{[redacted]}} by merging UP's traffic tapes with a dataset that includes information on UP's price authorities. He then repeats a similar process to create another price authority ownership variable {{[redacted]}} based on NS's traffic data and supplemental information associated with NS's price authorities. Dr. Israel then links the UP and NS traffic tapes. At the time of determining price authority ownership, there are approximately {{[redacted]}} observations for which {{[redacted]}} and {{[redacted]}} provide conflicting information: the NS traffic tapes point to NS as the price authority owner, while the UP traffic tapes point to UP as the price authority owner. Dr. Israel resolves this inconsistency by assuming (without explanation) that UP is the owner of the price authority linked to those movements. See my workpapers; Israel VS workpapers ("{{[redacted]}}").

originating carrier (consistent with the practice described above). This modification changes qualitatively and quantitatively the results Dr. Israel obtained for the traffic sample that includes all traffic (i.e., contracts, private quotes, tariffs, and other non-tariff arrangements): contrary to his findings, Dr. Israel's analysis would find that shippers who deal with the sole-serving carrier pay rates that are {{[redacted]}} higher than those who deal with the competitive end.[257] I am not claiming that Dr. Israel's model is correct but simply showing that his empirical results are qualitatively different from what he reports when one adopts an alternative reasonable approach to resolving the conflict in his data. This underscores the unreliability of his results.

156. Finally, while I acknowledge that Dr. Israel characterizes these analyses as a test of foreclosure concerns, to the extent that he actually intends them to be a test of the one-lump theory related to the Proposed Transaction, he has not designed a proper test for this purpose, as his analysis does not feature a comparison of rates pre- and post- end-to-end integration in corridors that feature a sole-served end. Because Dr. Israel makes no comparison of this kind, his analysis cannot be construed as a valid test of the theory.

V. THE PROPOSED TRANSACTION EXPANDS THE RANGE OF OPPORTUNITIES FOR A COMBINED UP/NS TO INCREASE RAIL RATES PAID BY SOME SHIPPERS THROUGH TIE-IN SALES OR THE ADOPTION OF UP'S CURRENT PRICING PRACTICES

157. In this section, I discuss two potential ways in which a combined UP/NS could increase the rail rates some shippers pay post transaction. First, I explain the way in which the Proposed

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[257] This estimate is statistically significant at the 5% level. I also explore two alternative assumptions to address the approximately {{[redacted]}} observations for which Dr. Israel attributes the price authority to UP despite conflicting information: (i) by attributing the price authority to NS, and (ii) by excluding these observations entirely. Applying these alternative data assumptions to Dr. Israel's regression model, I continue to find that shippers who deal with the sole-serving carrier pay higher rates than those who deal with the competitive end (about {{[redacted]}} and {{[redacted]}} higher, respectively, with both estimates being statistically significant at the 5% level). See my workpapers.

Dr. Israel also estimates this model on two additional samples: non-contract traffic and tariff traffic. The non-contract and tariff traffic samples include approximately {{[redacted]}}, respectively, of the observations Dr. Israel relies on for his estimation of this model with all traffic data. Israel VS, ¶ 53, Figures 7, 8, and 9. If I limit the estimation dataset to the narrower sets of shipments in Dr. Israel's non-contract traffic dataset, I find that differences in rates per carload are about {{[redacted]}} and not statistically significant. If I further limit to his tariff traffic dataset, I find that differences in rates per carload are about {{[redacted]}} and not statistically significant. See my workpapers.

Transaction creates new opportunities for a combined UP/NS to use tie-in sales.[258] Second, I present economic evidence based on Dr. Israel's own analysis (which he does not discuss but appears in his workpapers) that shows that UP sets its rail rates {{[redacted]}} than NS does today, even after controlling for relevant shipment factors, implying a potential for rate "uplift" on NS shipments of {{[redacted]}} per year. To the extent a combined UP/NS can bundle currently independent UP and NS services and impose UP's pricing practices, the Proposed Transaction has the potential to harm shippers via an increase in the rates they pay.

A. A COMBINED UP/NS WILL HAVE THE OPPORTUNITY TO USE TIE-IN SALES TO HARM SHIPPERS

158. A tie-in sale is one that conditions the purchase of one good on the purchase of another. There are different reasons why sellers may want to use tie-in sales, including price discrimination, quality assurance, efficiency, or the avoidance of price regulation.[259] Although the use of tie-in sales can be efficient, it can also harm shippers and harm competition, depending on the circumstances. As I noted before in Section IV.E.1, tie-in sales are relevant to the Proposed Transaction given that both UP and NS discuss bundling practices in their internal documents.[260] Moreover, shippers have complained to the STB that bundling practices can hinder the accessibility of rate remedies.[261]

159. In this Section V.A, I provide two examples of how a combined UP/NS could use tie-in sales to increase rates. First, I study merger-related opportunities to tie-in sales of rail services across corridors characterized by uncertainty about demand for those services (Section V.A.1).

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[258] Economically, tie-in sales and bundling are closely related phenomena. Carlton and Perloff (2005), pp. 321-322. For simplicity, I use the terms interchangeably.

[259] Carlton and Perloff (2005), p. 319.

[260] See ¶ 142 and n. 238 above.

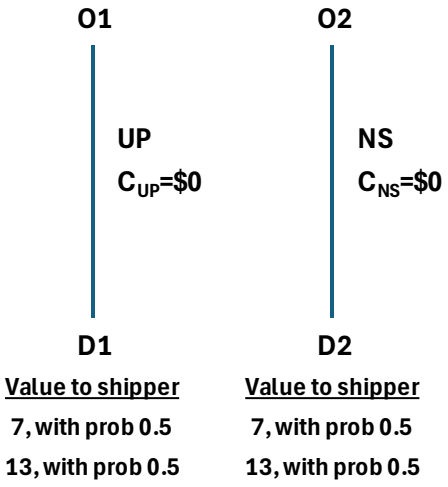
[261] Opening Comments of The American Chemistry Council, The Fertilizer Institute, The National Industrial Transportation League, The Chlorine Institute, and The Corn Refiners Association, Final Offer Rate Review, STB Docket No. EP 755, November 12, 2019, p. 25 ("[R]ailroads can continue to hinder the accessibility of rate remedies through 'rate bundling,' which ties a railroad's offer of reasonable rates on some lanes to a shipper's acceptance of unreasonably high rates on other lanes."); Verified Statement of Kevin W. Caves, PhD On Behalf of The American Chemistry Council, Final Offer Rate Review, STB Docket No. EP 755, November 12, 2019.

Second, I present a simple example to illustrate how tie-in sales of rail services within a corridor could be used to evade rate regulation (Section V.A.2). Both cases are discussed in the context of sole-served carrier(s) operating on at least one end of the corridor. As such, the potential harms to shippers that the examples illustrate are not necessarily caused by a loss of competition between rail carriers; rather, they are associated with UP and NS becoming a single firm, able to jointly negotiate higher rates (or lower service quality) with shippers. To the extent that the tie-in also allows diversion of volume from other rival railroads, that can lead to an additional harm to competition as discussed in Section IV.

1. The Proposed Transaction expands the range of opportunities for Applicants to tie-in sales of services across corridors, with the potential to harm shippers

160. In this Section V.A.1, I illustrate how a combined UP/NS can use tie-in sales to increase rates when there is uncertainty about the value of given services to a shipper. Consider the simple example illustrated in Figure 22 below. Suppose there is a shipper that currently requires UP to ship one unit in corridor O1-D1 and, separately, requires NS to ship one unit in O2-D2. Because of uncertainty associated with demand shocks for commodities transported along these corridors, the value of using each corridor for the shipper is not known for sure. In particular, I assume there are two possible states of the world: a scenario of "low demand," in which the value of shipping in corridor O1-D1 is $7 with probability 0.5; and a scenario of "high demand," in which such value is $13 with probability 0.5. I assume identical (yet independent) conditions for corridor O2-D2. The rail carrier sets its rates before it knows which state of demand prevails in each corridor and, once a rate is set, the shipper decides whether to buy the service(s) offered by the railroad. To simplify, I also assume there is no cost of serving these corridors for either of the two monopoly carriers and that the shipper has at most one unit to ship on each route.

Figure 22: An Illustrative Example of Tie-in of Rail Services Across Corridors



(a) Pre-merger equilibrium

161. With NS and UP operating independently, each carrier needs to decide what rate to offer the shipper for their services in the corresponding corridor. It is straightforward to show that the choice of the optimal rate for UP in corridor O1-D1 is limited to two alternatives: a rate of $7, or a rate of $13:[262]

- If UP chooses to charge $7, then the shipper will always accept such an offer, regardless of the realization of demand. In times of low demand, the shipper will obtain a surplus of $0, while in times of high demand the shipper's surplus will rise to $6 ($13-$7). Ex-ante, the shipper's expected surplus is then equal to $3 ($0*0.5 + $6*0.5). Because the shipper always buys at a rate of $7 and UP has no costs, UP's expected profit from posting this rate is $7.
- If UP chooses to charge any rate above $7 then, at most, the shipper will buy only in the high demand situation. Thus, the only rate UP would charge above $7 would be $13, and its expected profits from posting a rate of $13 are equal to $6.5 ($13*0.5), which is lower than $7.

[262] Rates under $7 are not optimal because UP can always increase such rate to $7, get the offer accepted, and increase its profits. Rates between $7 and $13 are not optimal because at those rates only a high-demand shipper would accept, and if that's the case then UP could have charged a rate of $13 and increased its profits. Rates over $13 are not optimal because the shipper would not buy under any state of the world, resulting in zero profits for UP.

- As a result, the equilibrium agreement involves a rate of $7 (equal to UP's expected profits) and a shipper expected surplus of $3.

162. NS faces an identical problem in corridor O2-D2, and therefore charges $7. In the absence of a merger, UP and NS each obtain expected profits of $7, and the shipper's expected surplus is $3 per corridor. In total, UP and NS expect to earn $14 and the shipper enjoys an expected surplus of $6.

(b) Post-merger equilibrium – use of tie-in sales

163. If the Proposed Transaction is approved, the merged firm will have the incentive and ability to profitably tie in sales and harm this shipper.[263] In this case, the merged railroad still sets rate(s) before demand is observed, but now can pursue an additional pricing strategy of tying together freight shipments on both routes and charging a single rate. I note that the merged entity could choose not to use tie-in sales and, instead, rely on the strategy UP and NS pursued as independent carriers, which guarantees Applicants an expected profit of $14 and the shipper an expected surplus of $6. Now consider the alternative strategy, one in which a combined UP/NS "bundles" or ties in the sale of both corridors by posting a single aggregate rate for both services. Using the same assumptions as above that scenarios across corridors are independent, a combined UP/NS knows that there are now four states of the world, with valuations and probabilities (in parentheses) as described in the figure below.

[263] To the extent regulated rates (if any) for these corridors exceed the shipper's willingness to pay for these rail services, I understand that the merged carrier would be allowed to implement the tie-in strategy described in this section.

Figure 23: Shipper's Aggregate Valuation for Services in Both Corridors

Corridor O2-D2		Corridor O1-D1: Low	Corridor O1-D1: High
Low		14 (0.25)	20 (0.25)
High		20 (0.25)	26 (0.25)

164. In this setup, a combined UP/NS will assess the profitability of three possible single rates which enable the shipper to ship on both corridors.

- A total rate of $14 for services in both corridors will be accepted by the shipper in all possible states of the world. Ex-ante, the shipper's expected surplus will be the same as it obtained when UP and NS negotiated independently ($6).[264] This offer leaves a combined UP/NS with the same expected profit the carriers collectively received pre-merger ($14) and the shipper with the same expected surplus ($6).
- A total rate of $26 would be accepted only when the shipper faces high demand in both corridors. Because this occurs with probability 0.25, a combined UP/NS's expected profits from this rate are equal to $6.5 ($26*0.25), much lower than what the merged carrier can obtain by posting a rate of $14.
- A total rate of $20 would increase a combined UP/NS's expected profits versus the pre-merger benchmark of $14. At a rate of $20, only when the shipper faces low demand in both corridors will the shipper not buy (given the aggregate valuation of $14). Because the low-demand scenario in both corridors occurs with probability 0.25, this implies a combined UP/NS will get a rate (and profits) of $20 with probability 0.75 (1-0.25), resulting in an expected profit of $15 ($20*0.75). With a combined rate of $20, the shipper will obtain a positive surplus of $6 ($26 - $20) only when it faces high demand in both corridors. Because this occurs with probability 0.25, the ex-ante expected surplus for the shipper under this rate scenario is $1.5 ($6*0.25).

[264] Shipper's expected surplus = $6 = 0.25*(14-14)+ 0.25*(20-14) + 0.25*(20-14) + 0.25*(26-14).

165. Thus, as a result of the merger and the ability to engage in tie-in sales, the merged carrier will tie the sale of freight in both corridors and charge the shipper a single rate of $20. A combined UP/NS will increase its expected profits from the pre-merger value of $14 to $15, and harm the shipper, as the shipper's expected surplus is reduced from $6 pre-merger to $1.5 post-merger. This example highlights that the Proposed Transaction can unlock new opportunities for UP and NS to increase their combined profits through tying of services to shippers that were previously independently sole-served by these carriers. While this is not a harm to competition (as monopoly carrier(s) serve both corridors both pre- and post-merger), the shippers will be harmed as a result of the merger.

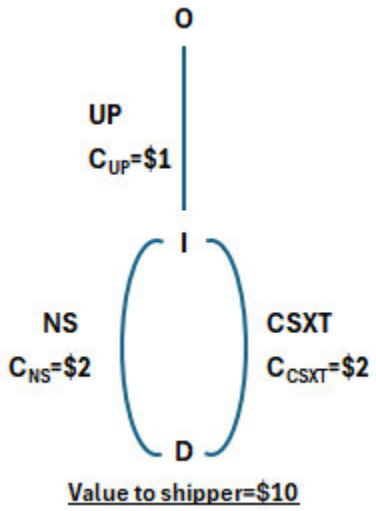
2. The Proposed Transaction could enable the merged firm to evade rate regulation

166. In this Section V.A.2, I focus on a different reason for using tie-in sales – the evasion of rate regulation. I use a simple example to illustrate how tie-in sales could be used to evade rate regulation. I raise this possibility as a potential concern that the STB should consider as it evaluates the Proposed Transaction.[265] To the extent that tie-in sales can enable the merged firm to evade the current or future regulatory authority of the STB, that would be obviously undesirable.

167. Consider the simple example illustrated in Figure 24 below. A shipper is interested in shipping freight from an origin O to a destination D. Origin O is sole-served by UP, which can take the load as far as interchange point I. At I, the shipment can be passed to either NS or CSXT, which compete on rates to deliver it from the interchange point to the destination D. I assume the value of the shipment to the shipper is $10, and that it costs UP $1 to serve the segment O-I, and CSXT and NS $2 to serve the segment I-D.

[265] See n. 261 for examples of shippers raising such concern.

Figure 24: An Illustrative Example of Tie-in of Rail Services for Segments Within a Corridor



168. Absent any regulatory constraint and, for simplicity, assuming that the one-lump theory holds:[266]

- *Pre-merger equilibrium without rate regulation*: UP can extract the shipper value of $10. Competition between NS and CSXT takes the rate for that segment down to $2 (their cost), with either CSXT or NS servicing the shipper and earning no profit. UP exploits its monopoly power to charge the shipper $8 for the O-I segment and obtains a profit of $7. The shipper pays a total of $10 and is left with no positive surplus.
- *Post-merger equilibrium without rate regulation*: Nothing changes here. A combined UP/NS will charge the customer a total of $10 and use CSXT or its own service for the second leg (both have the same costs). After covering costs, a combined UP/NS is left with a profit of $7 (same as the combined sum of UP's and NS's profits pre-merger) and the *shipper* pays a total of $10 and is left with no positive surplus (same as pre-merger).

169. Consider now a situation in which the rates charged in these segments are each subject to a regulation that states that each rate cannot exceed $4. I illustrate this in Figure 25 below.

[266] Even if the one-lump theory does not hold, there still would be an incentive to use tie-in sales to avoid the regulatory constraint, though they might not enable the monopoly carrier to earn the monopoly price.

Figure 25: Impact of Tying Sales of Segments Within a Corridor Subject to Regulation

	Rail Rates			Profits			Shipper
	O-I	I-D	O-D	UP	NS	UP+NS	Surplus
Pre-Merger	$4	$2	$6	$3	$0	$3	$4
Post-Merger	-	-	$8	-	-	$5	$2
Change	-	-	$2	-	-	$2	($2)

- *Pre-merger equilibrium with rate regulation:* Given rate regulation, UP cannot extract all surplus from the shipper, as it can no longer charge the $8 for the O-I segment that would achieve that outcome. UP now has to settle for a rate of $4 instead. In the I-D segment nothing changes from before, as competition brings down the rate for the segment to $2, which is below the regulatory threshold. As a result, UP's profits are $3, CSXT and NS each earn $0, the total rate is $6, and the shipper surplus is $4.

- *Post-merger equilibrium with rate regulation:* In this scenario, the approval of the Proposed Transaction gives Applicants the incentive and ability to profitably tie in sales between the O-I and I-D segments and harm this shipper. Notice that the merged carrier has a new option it did not have before the merger.[267] If a combined UP/NS can tie the sale of the O-I segment to that of the I-D segment, it would offer a single rate for the whole haul. If a combined UP/NS does not have to quote a rate for only a segment of the route, CSXT would lack the ability to compete because it cannot complete the full route. As a result, any alternative that leaves the shipper with non-negative surplus will be accepted. Because the maximum rate that a combined UP/NS can charge for the O-D service and still be compliant with regulation is $8 (a rate a combined UP/NS wants to offer as it obtains a profit of $5, higher than the $3 it obtains without bundling), the shipper will accept such an offer and obtain a surplus of $2 ($10 value minus the $8 rate). In this case, the merger creates the incentive and ability for a combined UP/NS to use tying to foreclose CSXT, evade rate regulation, and harm the shipper.

[267] A combined UP/NS could still charge a rate of $4 for O-I and a rate of $2 for I-D. These rates comply with regulation and are accepted by the shipper, leaving a combined UP/NS with a profit of $3.

B. DR. ISRAEL'S FINDINGS INDICATE THE POTENTIAL FOR RATE "UPLIFT" POST-TRANSACTION

170. I now turn to Dr. Israel's analysis of the differential effects of UP and NS pricing, which Dr. Israel measures in his model that analyzes interline prices. According to Dr. Israel's model, these variables show that, all else equal, UP sets its rail rates higher than NS does today. This result implies a potential for rate "uplift" post transaction. While rate uplift is not necessarily a change in rates that would occur directly because of a change in competition resulting from the Proposed Transaction, it is a relevant factor to consider if it raises rates given the STB's public interest standard considers all "merger-related harms."[268]

171. Dr. Israel's model (with data corrections) estimates UP rates that are, on average, {{[redacted]}} than NS rates across all UP and NS shipments (exclusive of those where UP and NS interline).[269] To the extent UP has more aggressive pricing practices than does NS, this indicates a potential for UP to elevate NS's rates post-merger.[270] When this uplift percentage of {{[redacted]}}

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[268] STB Rules, p. 16 ("***Public interest considerations.*** *The Board believes that mergers serve the public interest only when substantial and demonstrable gains in important public benefits — such as improved service and safety, enhanced competition, and greater economic efficiency — outweigh any anticompetitive effects, potential service disruptions, or other merger-related harms*." (emphasis in original)).

See also Rachel Rasp and Jeffrey S. Oliver, "Rate Uplift, Competitive Effects, Changing Guidelines – Is a Post-Merger Price Increase Necessarily Anticompetitive?" *The Antitrust Source*, June 27, 2024, https://www.americanbar.org/groups/antitrust_law/resources/source/2024-june/rate-uplift/. This article notes that enforcement actions by antitrust authorities in recent years have examined "post-merger price increases caused by rate uplift--a post-transactional movement of the parties to the higher of the merging firms' pre-merger contractual rates[,]" in particular in "markets in which prices are determined by periodic, multi-year contract negotiations between the provider of goods or services and its customers[,]" where post-merger "the parties may see a temporary boost in revenue by utilizing existing contract provisions that allow the merged entity to migrate relevant customers to the contracts of the merging party with relatively more favorable rates or terms." The authors also note that "[a]lthough a contractual rate uplift post-merger is in the everyday sense a 'price increase,' it is not--standing alone--the type of price increase with which antitrust law is traditionally concerned. That is because it does not involve an increase in market power as a result of the merger[.]"

[269] See Appendix Figure 10, column (1). The elevation in UP rates over NS rates can be calculated as: ~{{[redacted]}}.

[270] For further discussion on UP pricing strategies, see {{[redacted]}}

is multiplied by NS's 2023 revenue of {{[redacted]}} from traffic that does not involve interline shipments with UP, this would imply {{[redacted]}} in potential rate increases per year on NS shipments.[271]

VI. APPLICANTS' COMMITTED GATEWAY PRICING (CGP) PROPOSAL DOES NOT ENHANCE COMPETITION, HAS LIMITED APPLICATION, AND ITS ALLEGED WELFARE IMPLICATIONS ARE DERIVED FROM AN ECONOMIC MODEL WITH MEANINGFUL SHORTCOMINGS

172. Dr. Israel states that CGP, a pricing program that applies only to a small set of specific interline environments, is "designed to enhance competition further, by providing competitive options to certain shippers and routes that would otherwise not directly benefit from the vertical integration of UP and NS."[272] In this section, I first provide an overview of the (expanded) CGP program, highlighting its limited and arbitrary applicability.[273] Importantly, I note that CGP does not enhance competition.[274] Although it can benefit some shippers by lowering their rates, it achieves this by harming others. I also note that Dr. Israel's calculated overall welfare gains from CGP are relatively limited when compared to the total expenditure associated with

[redacted]}}.

[271] See my workpapers.

[272] Israel VS, ¶ 147. See also Verified Statement of Katherine N. Novak, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, April 29, 2026 (hereinafter, "Novak VS"), ¶¶ 4, 7 (quoting STB Rules, § 1180.1(d)).

[273] As part of their July 2026 submission, Applicants also propose an updated, or "expanded," version of the CGP program that claims to have made "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." Israel Supplemental VS, ¶ 7.

[274] I define the term "enhancement of competition" to mean the establishment of a new competitive alternative that was previously not available. Under this definition, CGP does not enhance competition.

impacted shippers {{[redacted]}}.[275] Second, I explain that Dr. Israel's estimates of shipper benefits are unreliable given shortcomings in the economic model he uses to support them, which include unrealistic assumptions about how shippers make decisions and about calibration parameters for his model that are inconsistent with estimates of elasticities in the economic literature.

A. THE EXPANDED CGP PROGRAM DOES NOT ENHANCE COMPETITION AND HAS LIMITED BENEFITS ON A LIMITED AND ARBITRARY SET OF TRAFFIC

173. Applicants characterize CGP as a "market-based mechanism" under which BNSF or CSXT would be able to quote rates on certain traffic that interlines with UP/NS.[276] These rates, in turn, will be determined on an annual basis by UP/NS using comparable, non-CGP eligible shipments, and valid only during the STB oversight period.[277, 278] In this section, I explain that

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[275] See Figure 26. Dr. Israel analyzes the shipments affected only by the Expanded CGP Proposal as well as ones that allow for "additional shipment inclusions[.]" Israel Supplemental VS, ¶¶ 34-35. I focus my analysis on the assumptions and results of Dr. Israel's model that analyzes shipments affected only by the Expanded CGP Proposal.

[276] Israel Supplemental VS, ¶ 9. See also Israel Supplemental VS, ¶ 12; Israel VS ¶¶ 149-150; Novak VS, ¶ 15.

[277] The CGP rate is the maximum rate that BNSF and/or CSXT can use for the UP/NS portion of an interline movement for eligible CGP traffic. Novak VS, ¶ 26. CGP rates are determined by a formula based on what Applicants describe as a set of "comparable" movements. Novak VS, ¶ 24. The comparable traffic of similar shipments is split into two matrices of 92 cells (one for BNSF and one for CSXT) reflecting combinations of 23 commodity-based segments and 4 distance-based segments. See Appendix B; Novak VS, ¶¶ 27-33, Attachment 1 ("Commodity-Based Segments"). The segmentation based on distance considers the mileage moved under UP/NS rates, rather than the entire length of an interline shipment, if different. Novak VS, Appendix A, p. 26.

[278] CGP is not a long-term proposal. Novak VS, ¶¶ 45 (noting that if approved as a condition for the Proposed Transaction to go through, CGP "will remain in place until the end of the oversight period in this proceeding, unless extended by the Board."), 46, 50. This makes the CGP proposal fundamentally different from an agreement such as the I-5 Agreement, a permanent proportional rate framework implemented by the STB as part of additional procompetitive conditions for the UP/SP merger in 1997. I-5 followed the sale of UP lines to BNSF as part of a condition of the UP-SP merger in 1997. Israel VS, ¶ 155. While Applicants' experts claim the I-5 framework has been "successful" in enhancing competition through market-based gateway rates, and that for such reason it "served as an inspiration for parts of the CGP proposal," Applicants only offer CGP as a temporary mechanism without any additional permanent procompetitive conditions. Israel VS, ¶¶ 154, 162, Section V.C. Applicants' experts also fail to explain how CGP enhances competition as distinct from benefitting some shippers (at the expense of others) with lower rates. Israel Supplemental VS, Section III.B.

CGP does not enhance competition. I also show that CGP applies to a limited and arbitrary set of traffic, and that Applicants' claimed net benefits on that traffic are limited.

174. ***CGP does not enhance competition***. CGP can be thought of as a form of rate regulation that lowers rates for some shippers by using other market rates as a benchmark. Thus, Applicants' (and their expert, Dr. Israel's) references to CGP enhancing competition are misleading.[279] Contrary to Applicants' claims, because the program does not add any additional competitive options for shippers, CGP does not replace competition lost due to the Proposed Transaction nor does it enhance competition. Instead, CGP is a form of benchmark regulation in which prices are capped at a given rate determined by using other shipments' rates as a reference. At most, CGP is a subsidy for some (a subset of shippers in the application set) and a tax for others (a subset of shippers in the input set).

175. ***CGP applies only to a limited and arbitrary set of interline movements involving UP/NS***.[280] For example, Dr. Israel's calculations show that CGP-eligible traffic in 2024 (totaling roughly {{[redacted]}} carloads) represents only {{[redacted]}} of {{[redacted]}} of UP/NS interline carloads.[281]

176. ***The claimed net benefits of CGP are limited***. Dr. Israel offers an analysis to support his opinion that the expanded CGP proposal would generate "positive net benefits" to this set of traffic going forward.[282] This analysis relies on a simulated economic model to estimate the

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[279] Novak VS, ¶ 51 ("Committed Gateway Pricing will further enhance competition by sharing the merger's benefits with additional customers and shipments.").

[280] Novak VS, ¶¶ 20-25; Israel VS ¶ 169; Israel Supplemental VS, ¶ 7.

[281] Israel Supplemental VS, Figure 8; Israel VS, Figure 1.

[282] Israel Supplemental VS, ¶ 4. Dr. Israel also offers an analysis that estimates "potential benefits" of $86.5M in the first year immediately following the merger. Israel Supplemental VS, ¶ 33. For shipments where the CGP rate is lower than the observed rate, this approach calculates potential benefits as the product of the number of carloads in each shipment and the difference in rates. Dr. Israel notes that this analysis relies on the most recent data available pre-transaction to approximate the benefits of CGP for the first year post transaction, the time period in which the merger will not have the ability to change reference rail rates for the calculation of the CGP rate. Israel VS workpapers. However, Dr. Israel claims that in the initial period during which CGP is implemented, any adverse incentives for UP/NS to compete less aggressively on routes that determine the Committed Gateway Prices will not be reflected in those rates. Israel VS, ¶¶ 174-175 and associated notes. Given the structure of the program

welfare gains from CGP with respect to a world in which the merger takes place, but CGP is not implemented.[283] This allows Dr. Israel to, for example, account for the fact that once merged, a combined UP/NS has an incentive to raise its rates in the set of comparable traffic that is used to determine the CGP rate, knowing that such an increase will affect CGP rates.[284] Using his simulated economic model applied to 2024 data, Dr. Israel estimates a net increase of $44M in

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in which CGP-rates for year t depend on non-CGP rates throughout the prior year (t-1), this is incorrect. UP/NS will have the incentive to increase rates in the comparable routes as soon as the Proposed Transaction is approved, given those rates will be used to determine CGP-eligible rates for the subsequent years.

[283] Dr. Israel models the pricing decision of carriers that serve interline traffic for a given shipper. In the model, each shipper's choice of route (which establishes which railroad will be used) and contracting arrangement (which establishes whether the price is a through rate or a Rule 11 movement) are held fixed and treated as given, and the focus is placed on modeling the railroads' pricing incentives after these shippers' choices are made. That is, the model does not allow for shippers to change routes or railroads.

In Dr. Israel's model, a shipper contracts with two railroads to complete an interline movement of a specific commodity between an origin and a destination point. The shipper's demand for rail carloads is assumed to be a function of the distance-weighted average rate charged by the two rail carriers. Each carrier solves an optimization problem: choosing the rate for its leg that maximizes its profits. Dr. Israel assumes carriers solve this problem for each shipper (independently of others), and that the profit maximizing rate is offered to the shipper via a non-negotiable, "take-it-or-leave-it" mechanism. These assumptions, coupled with that of (shipper-specific) constant marginal costs, result in a profit-maximizing per car mile rate that is independent from the rates charged by the interline partner or rates charged in other routes, regardless of the contractual arrangement (through rates or Rule 11). Israel VS, Appendix C. I do not necessarily agree with Dr. Israel's assumptions in this simulation model.

[284] CGP rates are based on the 70th percentile of the (per car mile) rates in the input set, a choice neither theoretically justified nor empirically supported by Applicants. Without any analysis, Dr. Israel claims that "[t]he 70th percentile provides a reasonable balance between the enhancement of competition provided by the availability of CGP and the incentives" to compete less aggressively for certain traffic. Israel VS, ¶ 165. See also Novak VS, ¶ 35 ("Use of the 70th percentile … appropriately reflects the competition-enhancing goals of the program.").

Percentiles below 70 would tend to increase the benefit for shippers that are eligible for CGP and for which the CGP rate is binding. But smaller percentiles would also increase the incentives to drive rates up in the set of comparable traffic in order to affect the determination of the CGP rates. To the extent that smaller percentiles deliver larger net benefits for shippers, it would be clear that whatever the unspecified metric Applicants have used to evaluate whether the 70th percentile strikes an "appropriate" or "reasonable" balance between pricing incentives and competition enhancement, such a metric would not be grounded in the maximization of consumer welfare. Novak VS, ¶ 35; Israel VS, ¶ 165.

shippers' yearly consumer surplus by balancing the gains from lower rates to the benefited shippers against the losses from higher rates to the harmed shippers.[285]

177. Taken at face value, the estimated annual welfare gains offered by Dr. Israel could be informative for assessing the extent to which the benefits of CGP are substantial. In Figure 26, I compare Dr. Israel's estimated annual welfare gains from his simulation model to the 2024 rail value of shipments across different interline combinations—shipments in the "application set" (i.e., CGP-eligible traffic) and those in the "input set" (i.e., traffic used to calculate the CGP rate), as well as combined. When considering the application of CGP to all eligible traffic, on net, the figure shows that Dr. Israel's claimed CGP gains of $44M amount to {{[redacted]}} of pre-merger expenditures among shipments associated with BNSF's CGP program (i.e., UP/NS and NS/BNSF traffic in BNSF's input and application sets) and {{[redacted]}} of pre-merger expenditures among shipments associated with CSXT's CGP program (i.e., UP/NS and UP/CSXT traffic in CSXT's input and application sets). This nets to {{[redacted]}} of the expenditure on these shipments.[286]

[285] Israel Supplemental VS, ¶ 33. Relying on rate, quantity, and mileage data from UP, NS, and the CCWS (which includes variable cost information), Dr. Israel uses the first order conditions from the pre-merger setup to calibrate the parameters of the model (demand parameters and marginal costs). Such calibration allows him to simulate the post-merger world associated with his setup, both with and without CGP. Israel VS, Appendix C, Sections II.B-II.C.

[286] As discussed below, Dr. Israel's simulations are conducted separately for the BNSF and CSXT matrices. As a result, UP/NS shipments belong to the input sets of both matrices, so I only count UP/NS expenditures once when aggregating across the BNSF and CSXT matrices, as does Dr. Israel in his treatment of "duplicated shipments." Israel VS, Appendix C, ¶ 43.

Figure 26: Dr. Israel's Simulated Projected CGP Welfare Effects and Shippers' Expenditures {{



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178. Dr. Israel acknowledges that the use of UP/NS rates as an input to determine CGP rates "can potentially create an incentive for the incumbent carrier to compete less aggressively and transact at rates higher than would otherwise occur absent the gateway rate mechanism."[287] While Dr. Israel discusses at length why the impact of this adverse incentive is "limited[,]"[288] the welfare losses for shippers in the input sets of the BNSF and CSXT matrices summarized above highlight the non-negligible negative impact of the CGP proposal on these shippers.[289] For example, as Figure 26 reveals, Dr. Israel's net gain of $44M comes from a gain of about

[287] Israel VS, ¶ 167.

[288] Israel VS, Section V.D.2.

[289] The unit of analysis in Dr. Israel's simulated model is a "shipper," which he defines as a unique combination of "shipper, route (origin SPLC6 to destination SPLC6), contracting railroads, contracting arrangement (e.g., through rate or Rule 11), and time period." Time periods are defined by intervals of six months (from January to June and from July to December). Israel VS, Appendix C, ¶ 36.

Relying on Dr. Israel's simulation results for the {{[redacted]}} commodity-distance cells for which he has "sufficient data" to estimate the model ({{[redacted]}} BNSF cells and {{[redacted]}} CSXT cells), I find that most of those cells ({{[redacted]}}) contain shippers in the input set that would experience an overall rate increase (based on the full length of the shipment) as a result of the application of CGP relative to the post-merger scenario without CGP. Across the input and application sets, {{[redacted]}} of shippers experience a rate increase in the post-merger world with CGP compared to the post-merger world without CGP. See my workpapers.

{{[redacted]}} for some shippers and a loss of about {{[redacted]}} for other shippers. In short, even Dr. Israel admits that the CGP proposal helps some shippers and harms others.

B. APPLICANTS' ESTIMATES OF THE IMPACT OF CGP ON SHIPPERS' WELFARE ARE BASED ON A FLAWED ECONOMIC MODEL

179. Applicants' expectations about the benefit of CGP are based on the estimates offered by Dr. Israel, as discussed above. However, the economic model underpinning Dr. Israel's welfare simulation exhibits substantial shortcomings that render it unreliable for any meaningful conclusions regarding the welfare effects of CGP.

180. First, Dr. Israel's model makes use of unrealistically high shipper (price) elasticities with respect to rail rates relative to elasticities found in the economic literature, casting doubt on the reliability of its welfare estimates. Elasticities are important because they determine shippers' reactions to changes in rail rates. Dr. Israel concludes CGP is a positive program because he estimates that the shippers in the application set will benefit more from reductions in rates (and quantity increases) than those shippers in the input set that will be harmed as a result of CGP via higher rates (and quantity decreases). But both estimates of benefits and losses crucially depend on how responsive those shippers are to changes in rates (i.e., their elasticities). Dr. Israel's model makes use of elasticities that he derives from the profit-maximization conditions in his model. However, those elasticities are not reliable estimates of the shippers' sensitivity to changes in rail rates because they far exceed those found in the economics literature. Given this is a crucial parameter needed to estimate welfare changes as a result of CGP, I find Dr. Israel's conclusion that CGP will positively impact shippers by $44M to be unreliable. I offer a more extensive discussion of this argument in Appendix B, where I show that the net benefits from CGP estimated by Dr. Israel's model would be roughly {{[redacted]}} when, for example, using a (common) elasticity value that is more in line with those estimated in the economic literature.

181. Second, Dr. Israel's model fails to adequately capture all sources of upward pricing pressure faced by input set shippers who are exposed to harm from CGP. In his analysis, he simulates the outcomes of the expanded CGP proposal separately for BNSF and CSXT traffic. That is, his model does not account for the fact that CGP will be applied simultaneously to both BNSF- and CSXT-eligible shipments. This is particularly important for UP/NS shippers in the input set of each cell since they are subject to the upward pricing pressure that results from the

determination of CGP-rates for cells in the application set of *both* BNSF- and CSXT-related traffic. In contrast, Dr. Israel's partial approach only accounts for the pressure these shippers are subject to when CGP is applied to only one of the other two Class I carriers.[290] As a result, his analysis does not properly identify the harm that the overall CGP program imposes on those common shippers.[291]

VII. APPLICANTS' ESTIMATES OF BENEFITS FROM THE PROPOSED TRANSACTION ARE FLAWED AND EXAGGERATED

182. In this section, I evaluate two specific claims from Applicants and their experts regarding the potential benefits of the Proposed Transaction. First, I demonstrate that Dr. Israel's estimates of the potential for downward pricing pressure from cost savings and/or the elimination of double marginalization ("EDM") are unreliable, as they are not robust to a reasonable modification. Second, I analyze claims by Mr. Hunt, the Applicants' expert in charge of the traffic diversion analysis offered by UP/NS in support of their application.[292] In particular, I explain why Mr. Hunt's claim that shippers will save approximately $3.5B when switching from truck to rail is focused on estimated cost savings but completely ignores that shippers that switch substitute towards a lower quality product in terms of at least certain dimensions such as transit time. I also explain that Mr. Hunt's estimates of {{[redacted]}} the diversion from truck to rail are exaggerated. In particular, the estimates are not explained by alleged transaction-driven reductions in rail rates, rail times, and the number of rail interchanges. Instead, they are

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[290] In his own discussion of the impact of a second CGP program on downstream mergers, Dr. Israel acknowledges that in the presence of overlapping input sets "[i]f 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." Israel Supplemental VS, ¶ 47. This recognizes the relevance of the mutually reinforcing pricing pressures faced by shippers who are present in multiple input sets. In the context of the CGP program proposed by Applicants discussed in this section, the reinforcing effect comes from the increased marginal benefit associated with raising the rate of UP/NS shippers present in both the BNSF and CSXT input matrices, as those increases can impact the CGP rates in the application set of both UP and NS.

[291] Dr. Israel "perform[s] the simulation separately for cells in the CSX CGP table and the BNSF CGP table" even though "the input sets for BNSF CGP cells and the input sets for CSX CGP cells both include the same set of UP-NS interline shipments[.]" Israel VS, Appendix C, ¶¶ 7, 43.

[292] Hunt VS, p. 5.

explained by unsupported assumptions and are inconsistent with Mr. Hunt's remarks about substitution between rail and truck services.

A. DR. ISRAEL'S FINDINGS FROM HIS TEST FOR THE PRESENCE OF DOUBLE MARGINALIZATION IN INTERLINE RATES ARE NOT ROBUST TO A REASONABLE MODIFICATION

183. As I discussed previously in Section III.C.1, Dr. Israel presents the results of a regression analysis that "test[s]" whether there is double marginalization in interline rates (or cost savings), showing that interline rates are higher than single-line rates.[293] First, I note that Dr. Israel's interline result is inconsistent with his arguments elsewhere. As Dr. Israel claims that contracts can be negotiated to be efficient, he should not find elimination of double marginalization.[294]

184. Second, I present an additional regression that tests whether Dr. Israel's interline result is robust to a reasonable modification and finds that it is not robust (see Figure 27 below). Here, I modify Dr. Israel's modeling approach to allow his interline effects to vary across shipments in two distance buckets: shipments of shorter and longer length than the median UP and NS interline haul (approximately {{[redacted]}} miles).[295] The figure shows that Dr. Israel's result with respect to interlining is not robust to a reasonable modification as his model shows there is no statistically significant difference between rates on either through rates or on Rule 11 for interline shipments shipped longer than {{[redacted]}}, relative to single-line shipments. This is important as many of these shipments are the kind of single-line routes that the Applicants claim the Proposed Transaction aims to create.[296] For example, these results imply there are no

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[293] Israel VS, Figure 10. Despite his finding of downward pricing pressure associated with EDM (and potential cost savings), Dr. Israel does not claim that a combined UP/NS will lower prices anywhere in the absence of inflation. Israel VS, ¶ 111 ("However, rates regularly go up with inflation, which could offset the elimination of double marginalization, for example. Alternatively, the merged railroad could choose to increase quality without raising prices[.]").

[294] See Section IV.E.

[295] These shipments represent {{[redacted]}} of the UP-NS carloads between 2019-2024. See my workpapers.

[296] Applicants' Second Response to Decision No. 21, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, July 27, 2026, supp. p. 104 ("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

differences in rail rates between interline shipments from New York City to Los Angeles and single-line shipments, since the distance between these two areas is about 3,000 miles.[297]

Figure 27: Dr. Israel's Model with Data Corrections and Interline Shipment Effects for Shipments Longer or Shorter than {{ }} Miles {{



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and then seamlessly integrate customer service functions to give customers the full benefits of single-line, coast-to-coast service.").

[297] Navo, "New York to Los Angeles shipping route," https://navo24.com/references/shipping-routes/rail/new-york-to-los-angeles/ (4,845 kilometers equal ~3,011 miles.).

B. APPLICANTS' ESTIMATES OF BENEFITS FROM THE PROPOSED TRANSACTION VIA TRUCK-TO-RAIL DIVERSION ARE FLAWED AND EXAGGERATED

1. Even at face value, Mr. Hunt's estimate of $3.5B in shippers' savings is overstated as it ignores quality tradeoffs and is not a welfare calculation

185. Applicants claim the Proposed Transaction will result in total public benefits of approximately $6.3B in any normal year post integration. More than half of these claimed benefits (approximately $3.5B) are associated with savings that current truck-reliant shippers will presumably experience when they switch to the single-line rail services provided by a combined UP/NS.[298] The $3.5B figure is an estimate offered by Mr. Hunt.[299]

186. Mr. Hunt claims that these savings reflect a "straightforward economic shift[,]" one in which higher-cost truck shipments divert to the lower-cost rail option as a result of rail services becoming more seamless and competitive. Given his estimates of truck-to-rail diversion, Mr. Hunt calculates shippers' savings from the switching to be the difference between pre-shift truck-related expenses of $7.2B and post-shift rail (and truck drayage) related expenses of $3.7B, for a net savings of $3.5B. [300]

187. Mr. Hunt's claimed savings, however, are not calculated in an economically appropriate way. When consumers make choices, the decision of what variety of a given product to purchase is based not only on price but also on quality (e.g., for rail services, reliability and frequency are relevant dimensions), and potentially many other factors. Suppose a consumer has a choice between a high-quality and a low-quality car. Given prices and budget restrictions, some consumers will choose the high-quality car, while others will choose the low-quality one. If prices were the only decision variable then every consumer should buy the cheaper, lower-quality car. But this is not the case, which implies other factors such as consumers' preferences and quality enter the decision-making process. When deciding what to buy, for example, consumers make rational choices involving the price-quality tradeoff: choosing the cheaper,

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[298] Amended Railroad Control Application, Vol. 1, p. 35.

[299] Hunt VS, p. 18.

[300] Hunt VS, p. 18.

lower-quality version of a product generates savings but also involves consuming a lower-quality product. Only if the savings are larger than the customer's valuation of the reduction in quality will the consumer choose the lower-quality version of the product.

188. Now imagine the lower-quality car gets a mechanical refresh that increases its relative quality (albeit not to the point of being equal to that of the higher-quality car), but its price remains the same. It is likely that as a result of this change some consumers may divert from choosing the high-quality car to actually buying the one with lower (yet improved) quality. In this context, an economist would likely agree that to assess the net impact of the change on those consumers that switched, it is relevant to consider the quality reductions from the switch as well as the price reductions. By actively switching when they could have kept choosing the high-quality car, those consumers are revealing an improvement in their well-being. That said, the monetary savings from the switch are only an upper limit to the welfare change they experience, as they have substituted towards a lower-quality product.

189. At a high level, it is possible to think that the change in welfare associated with a switch from option A to option B can be decomposed into two elements: a change in expenses, and a change in quality. This is reflected in the simple expression below, where ΔW is the change in welfare, ΔP represents monetary savings, and ΔQ is the change in quality.

$$\Delta W \cong \Delta P + \Delta Q$$

190. Generally, ΔP and ΔQ have opposite signs.[301] From an economist's perspective, the savings measured by ΔP represent an upper bound of the change in welfare. To the extent the switch in choices involves a quality downgrade, the change in welfare for those shippers that decided to switch will be strictly lower than the monetary savings (even if the change in welfare is positive, as otherwise they would not have switched).[302]

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[301] If an alternative that is of strictly higher quality and cheaper becomes available, then the monetary savings would underestimate the welfare effect on those that switch.

[302] Because the switch is toward a cheaper option, savings are positive, $\Delta P > 0$. Because the switch is toward a lower quality product, then $\Delta Q < 0$. When consumers voluntarily switch from a higher price (and quality) truck option to a cheaper, improved (yet still lower quality) rail option it has to be true that $\Delta W > 0$ (otherwise, they would not switch), which implies benefits from savings are larger than the loss of quality implied by the switch.

191. Mr. Hunt's estimates of shipper savings do not consider certain quality tradeoffs, according to his own workpapers. As I show in Figure 28, Mr. Hunt's workpapers illustrate that substitution toward the rail alternative facilitated by the Proposed Transaction implies a switch to a slower service. As Mr. Hunt does not consider this quality tradeoff in his estimate of shipper benefits, his estimate is an unreliable evaluation of the potential benefits of the merger.

Figure 28: Mr. Hunt's Price and Shipping Times of his Truck-to-Rail Diversions When Using Truck or Rail {{



}}

192. In Figure 28:

- Panel A shows that Mr. Hunt estimates 18.4M tons of merchandise and bulk products currently shipped via truck would be diverted to rail service. According to Mr. Hunt's estimates, these diverted tons would experience an average decrease in the price per ton of nearly {{[redacted]}} (from {{[redacted]}} per ton when shipped on truck to {{[redacted]}} per ton when switched to rail) at the expense of an increase in shipping times in excess of {{[redacted]}} (from a tonnage-weighted average time of {{[redacted]}} hours for current truck service to a

tonnage-weighted average time of {{[redacted]}} hours for the rail service those tons will be diverted to).[303]

- Panel B shows that Mr. Hunt estimates that 1.2M truck units currently shipping intermodal traffic will be diverted to use rail service (e.g., truck drayage and line-haul rail). According to Mr. Hunt's estimates, these units would experience an increase of approximately {{[redacted]}} in shipping times (from a unit-weighted average door-to-door time of {{[redacted]}} hours for current truck service to a unit-weighted average door-to-door time of {{[redacted]}} hours for the rail service those units will be diverted to). Mr. Hunt's own estimates reveal that his calculation of a "door-to-door price" for diverted units would be, on average, {{[redacted]}} lower under the rail alternative as compared to the current truck service (from {{[redacted]}} per intermodal unit for current truck service to {{[redacted]}} per intermodal unit for the rail service that those units will be diverted to).

2. Mr. Hunt's truck-to-rail diversions for merchandise and bulk products are derived from unsupported assumptions

193. Mr. Hunt estimates the Proposed Transaction would remove 850K merchandise/bulk truckload movements from roads every year by converting such traffic into approximately 191K equivalent rail carloads.[304] Mr. Hunt bases these estimates on a "lookalike" approach in which: (i) lanes get allocated an "archetype"[305] characterized by combinations of rail service term categories;[306] (ii) lanes for which the merger brings about changes in rail service terms get reallocated to new "archetypes;" and (iii) diversions for each lane reflect the difference between rail tonnage consistent with the average rail share in the new archetype and observed rail tons

[303] Unlike Mr. Hunt's analysis of intermodal truck-to-rail diversions, he does not consider the price of drayage or other markups in his merchandise and bulk diversion rail price calculations.

[304] Hunt VS, Exhibit 4-1. Mr. Hunt estimates the 850K movements using Transearch, S&P Global Markets, 2023 freight database. Hunt VS, Appendix B.1.1. Dr. Israel states these diversions "are large and provide further evidence of the significant benefits to both current and new UP/NS shippers from the proposed transaction." Israel VS, ¶ 139.

[305] Hunt VS, p. 153, Exhibit B-20.

[306] Hunt VS, p. 154 ("**Lane archetypes**: four key characteristics were used to group lanes into archetypes: rail mileage, rail transit hours, rail price, and single-line/interline service." (emphasis in original)).

pre-merger.[307] I illustrate below the mechanics of why Mr. Hunt's lookalike analysis can be unreliable.

Figure 29: Illustration of Mr. Hunt's Merchandise and Bulk Truck-to-Rail Diversions

Panel A: Archetypes

	Rail Tons [A]	Truck Tons [B]	Rail + Truck Tons [C]	Rail Share [D]	Tons-Weighted Average Rail Share [E]
Archetype 1	*16*	*14*	*30*	*53%*	*53%*
Lane A	**1**	**9**	**10**	**10%**	**-**
Lane B	15	5	20	75%	-
Archetype 2	*40*	*10*	*50*	*80%*	*80%*
Lane C	**1**	**9**	**10**	**10%**	**-**
Lane D	39	1	40	98%	-

Panel B: Mr. Hunt's Diversions: Lane A Switches from Archetype 1 to Archetype 2 and Is Awarded Archetype 2's (Weighted) Share

	Rail + Truck Tons [F] (from [C])	Share from New Archetype [G] (from [E])	New Rail Tons [H] = [F]*[G]	Increase in Rail Tons Through Diversion [I] = [H] - [A]
Lane A	10	80%	8.0	7.0

Notes: Diversions in Panel B follow Mr. Hunt's approach and assume that Lane A switches from archetype 1 to archetype 2 due to changes in service terms from the merger and, as a result, rail tons under Lane A are determined based on the rail share for lanes in archetype 2.

194. In Panel A of Figure 29 I describe two archetypes (1 and 2) for a given truck equipment type, defined by given rail service terms (not shown).[308] For each archetype, I calculate the (tons-weighted) average rail share, shown in column [E]. Assume now that Lane A is associated with changes in rail service terms brought about by the merger, so that after accounting for those changes it matches the rail service terms of archetype 2. Further assume Lane C is not impacted by the merger. I emphasize that, because of the merger, Lane A has become identical to Lane C

[307] Hunt VS, p. 156. The lookalike approach is premised on the notions that: (i) a "shippers' mode choice is based on price, transit time, interchanges, and reliability" and (ii) "shippers of a given commodity behave consistently on a national basis." Hunt VS, p. 39.

[308] For example, perhaps archetype 1 corresponds to a combination of service terms featuring one rail interchange, while archetype 2 corresponds to a combination that features none (i.e., it encompasses single-line service).

in rail volumes, truck volumes, and rail service terms. Panel B of Figure 29 shows that Mr. Hunt's approach would apply the rail share in archetype 2 of 80% to the tons in Lane A, and therefore result in 7 diverted tons for Lane A (10*0.8 – 1).[309]

195. Per Mr. Hunt's work:

- As a result of improved service terms associated with the merger, Lane A switches from archetype 1 to archetype 2. Post-merger, Lanes A, C, and D all belong to the same archetype (archetype 2).
- In archetype 2, the only feature that differentiates Lane A from Lane C is the fact that Lane A switched from archetype 1 to archetype 2 as a result of the merger, while Lane C was already a part of this archetype. Otherwise, Lanes A and C are identical.
- Despite being otherwise identical, Mr. Hunt's methodology implies that Lanes A and C would feature vastly different shares of rail: while Lane C still has a 10% rail share (in other words, it does not receive diversions because it is not impacted by the merger), an 80% rail share is allocated to Lane A.
- This difference is purely driven by the assumption that Lane A would be able to command a rail share equal to the pre-merger (tons-weighted) average of rail shares in lanes in this archetype, which is heavily driven by Lane D.
- If Lane A were to receive the same share as (the otherwise identical) Lane C, there would be no diversion from the merger.

[309] In Mr. Hunt's analysis it is possible for a lane to start in archetype 1 and remain in archetype 1 even if one or more underlying characteristics change, provided those changes are not large enough to move the lane into a different archetype. Mr. Hunt calculates diversions for this lane by attributing to it the pre-merger (tons-weighted) average rail share associated with archetype 1. This illustrates that in Mr. Hunt's approach even when a lane does not feature a change in service terms that is large enough to move it to a different archetype, diversions are calculated for such lane. For example, if in the illustrative example discussed in this section Lane A gets better terms post-merger but remains within archetype 1, Mr. Hunt's approach would say this lane should have 5.3 tons of rail, despite only having 1 ton associated with it before the merger.

196. I now explain how one of Mr. Hunt's assumptions noticeably affects his findings: the use of tons-weighted rail share to calculate diversions.[310] Consider the example lane Mr. Hunt provides in his Verified Statement, involving chemical tank truck shipments moving from Nueces County, TX to Morgan County, AL. Mr. Hunt estimates that the rail share in this lane would increase from 0% to 77% as a result of changes in rail service terms from the Proposed Transaction.[311] Mr. Hunt calculates this 77% share using the *tons-weighted average* rail share of over 2,000 lanes he deems comparable to the post-merger characteristics of the Nueces County, TX to Morgan County, AL lane.[312] However, Mr. Hunt fails to report that his workpapers show a rail share of {{[redacted]}} for over {{[redacted]}} of these lanes. This suggests that the 77% tons-weighted average rail share for this archetype is largely determined by roughly {{[redacted]}} of its lanes – those with some positive rail share. I find that using the simple average rail share among all lanes in this archetype {{[redacted]}} would reduce Mr. Hunt's diversions for this lane by {{[redacted]}}. If I instead apply the median rail share of {{[redacted]}}, this would result in {{[redacted]}} diversions for this lane.[313]

197. This example illustrates that Mr. Hunt's estimates are not robust to reasonable changes to an unsupported assumption in his approach. When I apply a similar modification to all lanes with diversion in Mr. Hunt's analysis, I find that using the simple average rail share would reduce Mr. Hunt's total merchandise and bulk diversions by roughly {{[redacted]}} (from approximately 191K to nearly {{[redacted]}} equivalent carloads). If I instead apply the median rail share, this would result in {{[redacted]}}.[314] Mr. Hunt provides no analysis as to whether it is more reasonable to use his tons-weighted averages or, alternatively, a median

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[310] Hunt VS, pp. 155-156 ("This average was weighted by total market tons (defined as rail + truck tons within that lane). By doing this, higher volume traffic lanes will exert a greater influence on an archetype's average rail market share, under the assumption that market dynamics are more consistent with increased volume.").

[311] Hunt VS, Exhibit 4-6.

[312] Hunt VS, p. 41. While Mr. Hunt mentions 2,353 lanes in his Verified Statement, his workpapers show a total of {{[redacted]}} lanes in the new archetype the Nueces County, TX to Morgan County, AL lane is switched to. Hunt VS Workpapers ({{[redacted]}}).

[313] See my workpapers.

[314] More precisely, the use of the simple average rail share results in {{[redacted]}} diverted rail carloads. The use of the median rail share results in {{[redacted]}} diverted. See my workpapers.

or simple average approach. Any of those approaches could be reasonable, and in the absence of empirical support, all seem reasonable. When results are not robust to reasonable modifications, then the method is not reliable.

3. Nearly half of Mr. Hunt's truck-to-rail diversion for intermodal products comes from traffic priced at an intermodal door-to-door rate that is higher than that of truck

198. Similar to his analysis of merchandise and bulk traffic, Mr. Hunt relies on a lookalike approach to estimate diversions from truck to rail for intermodal products.[315] Mr. Hunt estimates that the Proposed Transaction "would remove an estimated 1.2 million truckload movements from the roads by converting long-haul truck traffic to intermodal rail traffic."[316] I find that {{[redacted]}} of the diversions Mr. Hunt estimates are associated with movements that do not reflect improvements versus the current truck options.

199. Mr. Hunt notes that:

> "Based on Oliver Wyman's collective experience, when intermodal can offer transit times of truck plus one day and offer a 10% lower price than truck, a shipper is likely to strongly consider intermodal as a competitive substitute for truck."[317]

200. My review of Mr. Hunt's workpapers reveals that only {{[redacted]}} out of the 1.2M estimated diverted units {{[redacted]}} fall within the category that Oliver Wyman – the consulting firm Mr. Hunt works for – considers a competitive substitute for truck.[318, 319] Moreover, in his analysis, Mr. Hunt segments intermodal lanes "based on the typical discount to truck on a door-to-door basis into 10+% premium to truck, within 10% of truck, and a 10+% discount to

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[315] Hunt VS, pp. 57-58 ("A lookalike methodology at the lane level was employed to size the potential intermodal traffic gains that could result from the merger. … Intermodal lanes were segmented into groups with similar characteristics ('archetypes'), including length-of-haul, interline or single-line service, transit time versus truck, and door-to-door price versus truck.").

[316] Hunt VS, p. 54.

[317] Hunt VS, p. 138.

[318] Hunt VS, p. 4.

[319] See my workpapers.

truck."[320] In my review of Mr. Hunt's workpapers, I find that more than {{[redacted]}} of the 1.2M diverted units {{[redacted]}} are priced at an intermodal door-to-door rate, as calculated by Mr. Hunt, that is higher than that of truck.[321]

* * * * *

201. Mr. Hunt estimates diversions for merchandise and bulk products of approximately 850K truckloads, and of 1.2M units for intermodal traffic. The analyses in the previous sections indicate that those figures likely represent an overestimate.

- For merchandise and bulk shipments, this is because Mr. Hunt has offered no justification for the use of tons-weighted average rail shares to determine diversions, with his method not being robust to the use of alternative metrics such as simple shares or medians. Had he used the simple average share, he would have found total diversions that are nearly {{[redacted]}} equivalent carloads ({{[redacted]}} lower than those he presents). Had he used the median share instead, he would have found {{[redacted]}}.
- For intermodal, this is because only {{[redacted]}} of the estimated 1.2M diverted units feature relative rail service terms that are consistent with what Oliver Wyman deems as "a competitive substitute for truck."[322] Moreover, {{[redacted]}} of the diversions Mr. Hunt estimates feature intermodal door-to-door prices that are at par with or exceed the price of the truck alternative available.

In summary, Mr. Hunt's methodology does not produce reliable estimates of diversion from truck to rail.

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[320] Hunt VS, p. 141.

[321] See my workpapers. Mr. Hunt does not find any lanes where intermodal door-to-door service would be faster than truck. Hunt Workpapers ({{[redacted]}}).

[322] Hunt VS, p. 138.

VIII. THE PROPOSED TRANSACTION COULD INCREASE A COMBINED UP/NS'S ABILITY TO USE THE RAILCAR JOINT VENTURE TTX TO HARM COMPETITION

202. TTX is a large railcar company that provides railcars and management services that impact a substantial number of railroad movements in the U.S. Today, TTX is jointly owned by the six Class I railroads and Ferromex (FXE), with ownership shares given by: UP (37.03%), NS (19.78%), CSXT (19.78%), BNSF (17.4%), CN (3.2%), CPKC (2.2%), and FXE (0.6%).[323]

203. According to R-1 reports, UP's implied valuation of TTX was $5B in 2025.[324] Absent any remedies, the merger between UP and NS would lead the nearly $5B TTX to be majority-owned by a single carrier, as UP and NS would own a combined share of approximately 57%. While Applicants claim that a majority ownership of TTX will not undermine TTX's current pro-competitive and efficient operations, to the extent a combined UP/NS can exercise control and make decisions regarding car usage, capacity, investments, and rates that favor a combined UP/NS rather than all TTX partners, the Proposed Transaction could lessen competition in the rail industry.[325]

204. Not only would a combined UP/NS have the incentive to engage in such practices, but it could also have an enhanced ability to do so. This would be the case in the event no reallocation of ownership shares takes place post-merger—as a combined UP/NS will have majority control with a combined share of 56.81%—but also if UP's and NS's proposal to divest down to 49% is accepted by the STB, given the possibility to form coalitions with other railroads.

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[323] TTX is currently governed by a Board of Directors, with each of the seven share-holding railroads given a seat, and one additional seat held by the president of TTX. However, the number of votes for the president and the number of votes given to each member of the Board of Directors are proportional to the shares held by each owner railroad. Applicants' First Response to Decision No. 21, pp. 49, 50.

[324] Union Pacific, "Class I Railroad Annual Report R-1 to the Surface Transportation Board for the Year Ending Dec. 31, 2025," https://investor.unionpacific.com/static-files/a1642bdb-cf4c-4700-9532-8278296e5d85, p. 30. UP considers their balance of equity in TTX to be $1.84B at the end of 2025; divided by their share of ownership (37.03%) would value TTX at $4.96B.

[325] Applicants' First Response to Decision No. 21, p. 51 ("Applicants respectfully submit that maintaining UP/NS's post-merger 56.78 percent interest in TTX would not allow UP/NS to modify or undermine the longstanding pro-competitive, efficiency-enhancing nature of TTX's operations[.]").

A. TTX HAS A SIGNIFICANT PRESENCE IN THE RAIL INDUSTRY

205. TTX owns and manages a large fleet of approximately 177K railcars.[326] TTX's fleet of cars mainly consists of 110K intermodal wells and flat cars supplying over 127K wells of capacity to the rail network, with the remaining cars being boxcars and gondolas that can ship metal or automotive equipment.[327]

206. TTX operates its fleet under a pooling agreement that helps railroads manage railcar costs.[328] Moreover, TTX manages the operations of the North American Boxcar Pool (NABP), which is a pool of cars owned by third parties and railroads.[329] Railroads typically pay TTX for railcar usage per hour and mile, a charge that is typically passed to shippers.[330]

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[326] Applicants' First Response to Decision No. 21, p. 48.

[327] TTX, "Equipment," https://www.ttx.com/about/equipment/ ("[F]latcars and intermodal wells are by far the largest part of the TTX fleet – approximately 110,000 of them. …TTX is a major supplier of intermodal double-stack wells to the industry with a fleet of over 127,000 wells of capacity.").

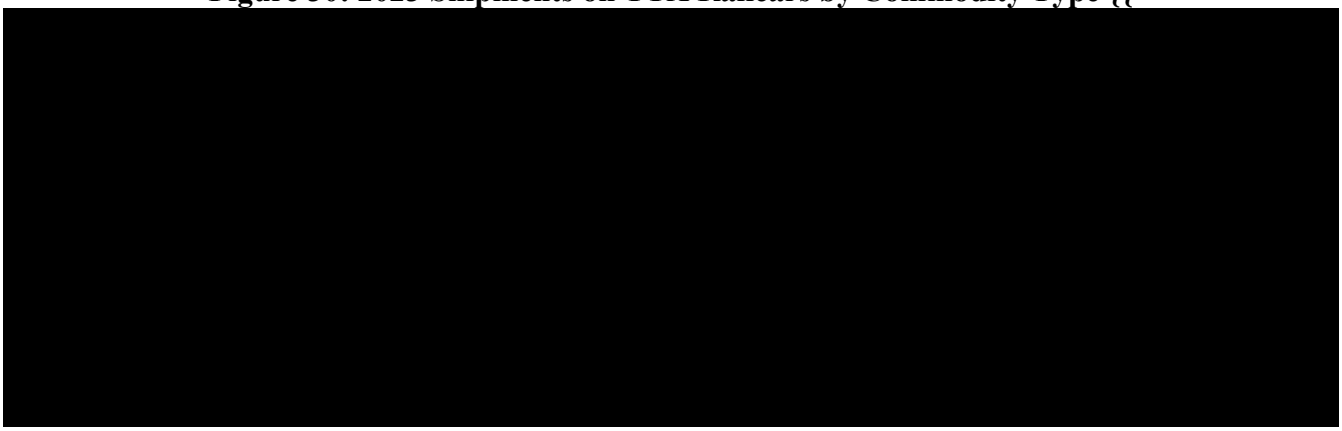
[328] TTX, "Who We Are," https://www.ttx.com/about/who-we-are/ ("[I]n 1974 [rail carriers] proposed to establish the distribution principles under a 'pooling agreement' approved by the federal Interstate Commerce Commission (ICC). … Pooling means that railroads share the railcars bringing several benefits. First, railroads have the flexibility to respond to changing market conditions because the fleet is already established. Second, they do not have to waste resources switching out and returning empty railcars, eliminating supply chain inefficiencies. Third, the capital burden on railroads is reduced because TTX buys the cars, lowering operating costs, and reducing the industry's risk. All of these help keep the railroads competitive to the benefit of the shipping public."). The pooling agreement allows TTX to "turn back" railcars to send back idle cars to TTX to avoid usage costs, which railroads did during the great recession in 2009. Jim Blaze, "Commentary: TTX pool railcars increase intermodal efficiency," *FreightWaves*, January 15, 2020, https://www.freightwaves.com/news/commentary-ttx-pool-railcars-increase-intermodal-efficiency.

[329] American Short Line and Regional Railroad Association, "The North American Boxcar Pool (NABP) FAQs," Summer 2023, https://www.aslrra.org/aslrra/document-server/?cfp=aslrra/assets/File/public/news/2023/NABP%20FAQ%20-%20Summer2023.pdf, p. 2.

[330] In 2024, BNSF and UP incurred TTX hiring expenses of $415M and $432M respectively. BNSF Railway Company, "Consolidated Financial Statements for the consolidated balance sheets as of December 31, 2024 and 2023, and the related consolidated statements of income, comprehensive income, changes in stockholder's equity, and cash flows for the three years in the period ended December 31, 2024," February 24, 2025, https://www.bnsf.com/about-bnsf/financial-information/pdf/rail-financials-4q-2024.pdf, p. 29; Union Pacific, "Class I Railroad Annual Report R-1 to the Surface Transportation Board for the Year Ending Dec. 31, 2024," https://investor.unionpacific.com/static-files/e4653a05-040c-411d-9c7b-c3e4decc8c61, p. 9. These rates are public, but the net rate paid varies based on railcar capacity utilization and discounts that are

207. The significance of TTX to the rail industry is illustrated in Figure 30 below, which reports the share of revenue on TTX railcars by traffic type. The figure shows that TTX cars are a critical input to shipping on the rail network today as {{[redacted]}} of intermodal revenue and {{[redacted]}} of transportation equipment revenue is associated with shipments on TTX rail cars. Moreover, UP and NS movements account for {{[redacted]}} of this TTX intermodal revenue and {{[redacted]}} of this TTX transportation equipment revenue.

Figure 30: 2023 Shipments on TTX Railcars by Commodity Type {{



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B. APPLICANTS' PROPOSED DIVESTMENT TO 49% OWNERSHIP WOULD STILL ALTER THE POWER BALANCE IN TTX

208. In their filings, Applicants note that while "they do not need Board authority to retain their combined 56.81 percent ownership interests in TTX," they reaffirm "their commitment to divest sufficient shares of TTX to reduce their post-merger ownership interest to 49 percent."[331] Moreover, Applicants argue that such divestiture is not needed because no anticompetitive

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not publicly disclosed. For example, the Base Rate Per Hour of usage of a 50' Plate F Pool Boxcar is $1.35 at utilization of 50%, but this rate is $0.69 at 100% usage. Supplement No. 250 to the TTX Company Form A Car Contract, TTX Company, et al. – Application for Approval of Pooling of Car Service With Respect to Flatcars, STB Docket No. FD 27590, December 20, 2023, Amendment No. 32, Exhibit B. Additionally, there are other private discounts that are not public. David Nahass, "Does Growth Look Like a Boxcar," *Railway Age*, October 7, 2024, https://www.railwayage.com/financeleasing/does-growth-look-like-a-boxcar/.

[331] Applicants' First Response to Decision No. 21, p. 47.

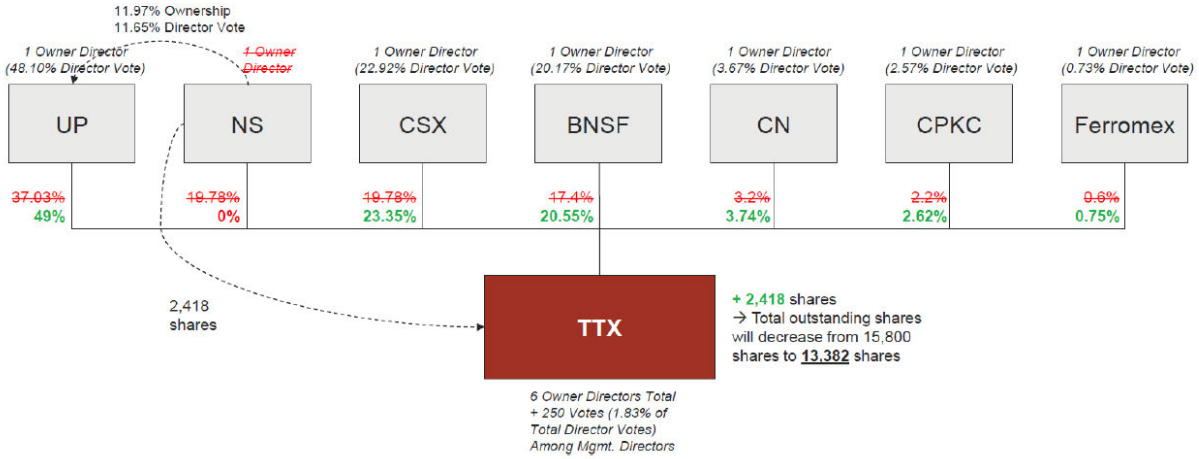
effects could arise from the consolidation of ownership.[332] However, Applicants' experts do not discuss how divesting a combined UP/NS's ownership down to 49% of TTX would resolve potential concerns about competition associated with any increase in TTX ownership.

209. Figure 31 describes one proposal that Applicants have put forth to divest down their ownership to 49% of TTX.[333] In this proposal ownership shares in excess of 49% are proportionally distributed among the remaining TTX shareholders based on their current ownership shares. What Applicants do not discuss is that, relative to current ownership shares, even this proposal enhances their voting power in TTX beyond what the 49% represents. With a 49% share, a combined UP/NS would need only one of the other four Class I railroads (CSXT, BNSF, CN, or CPKC) to join them to form a majority coalition (50% ownership shares or more). Absent the merger, UP is able to form a majority coalition only if it gathers the support of at least one of the other three large Class I railroads (BNSF, CSXT, or NS). Absent the merger, NS is able to form a majority only if either UP supports it, or if at least BNSF and CSXT support it. Stated differently, even with ownership shares at 49%, only a coalition involving all other Class I railroads acting as a unified block (i.e., a grand coalition involving BNSF, CSXT, CN, and CPKC) would be capable of opposing an initiative from a combined UP/NS. This is different from the situation today, in which opposition to the initiative of any given Class I railroad does not require the same level of coordination and overall agreement among all other Class I railroads.

[332] Applicants' First Response to Decision No. 21, p. 51 ("Thus, while Applicants intend to divest a portion of their combined interest in TTX such that their interest shall not exceed 49 percent to avoid any perception they could unduly influence the operations of TTX, such divestiture is neither required to avoid anticompetitive effects nor to avoid an additional required Board authorization.").

[333] Applicants' First Response to Decision No. 21, p. 53.

Figure 31: Applicants' Proposal to Divest to 49% Ownership of TTX



Source: Applicants' First Response to Decision No. 21, p. 53

IX. BNSF'S REQUESTED CONDITIONS WOULD ADDRESS, AT LEAST TO SOME EXTENT, THE POTENTIAL FOR HARM FROM THE PROPOSED TRANSACTION

210. In this section, I discuss economic evidence and arguments related to three conditions for relief that I understand BNSF is asking the STB to adopt in the event the Proposed Transaction is approved.[334] First, I analyze economic evidence related to competitive conditions and the potential effects of the Proposed Transaction on rail traffic associated with the Gulf Coast, for which I find noticeable areas of concern given the currently limited options shippers in this area have today. BNSF's proposal for a neutral switching railroad can address, at least to some extent, those potential harms. Second, I discuss the economic merits of two global (i.e., not tied to a particular geography) conditions: BNSF's Open Access Condition ("OAC"), and BNSF's Interline Preservation Mechanism ("IPM") condition. Both conditions are designed to address, at least to some extent, potential merger-related harms throughout the network. They do so either by creating new competition where none exists (OAC), or by preserving competition

[334] I understand BNSF's requests are described in BNSF Railway Company's Comments and Request for Conditions, Union Pacific Corporation, et al. – Control – Norfolk Southern Corporation, et al., STB Docket No. FD 36873, November 18, 2026, (hereinafter, "BNSF Comments and Request for Conditions").

through guaranteeing the availability of the same interline route alternatives shippers can currently rely on (IPM).[335]

A. BNSF'S PROPOSAL FOR A NEUTRAL SWITCHING RAILROAD TO SERVE ALL BNSF AND UP RAIL-SERVED FACILITIES IN THE GULF COAST WOULD ADDRESS, AT LEAST TO SOME EXTENT, THE POTENTIAL HARMS OF THE PROPOSED TRANSACTION IN THIS AREA

211. I focus my discussion in this section on BNSF's Gulf Coast Condition Request. For this request, I understand BNSF is asking the STB to require UP to install a neutral switching or terminal railroad that would directly serve facilities currently served by UP and BNSF in the Gulf Coast region.[336]

212. The Gulf Coast is important to many industries across the U.S. For example, for the American economy's crude oil supply, the U.S. Energy Information Administration (EIA) reports that there are 49 operating refineries in Louisiana and Texas producing over 9.1M barrels per calendar day in 2026.[337] To put this in context, the EIA finds these refineries make up almost 40% of the U.S.'s 128 operating refineries and over half of the U.S.'s production of 18.1M barrels per calendar day in 2026.[338] These refineries are increasingly relevant today. For example, the Financial Times reported in early 2026 that companies with refineries in the Gulf

[335] BNSF is also asking the STB to grant BNSF trackage rights over certain NS lines between Chicago, IL and Bethlehem, PA. I do not discuss economic evidence related to such request in this Verified Statement because I provide a separate Verified Statement in support of BNSF's responsive application for those trackage rights. Verified Statement of Professor Dennis W. Carlton, Ph.D., BNSF Railway Company – Trackage Rights – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873 (Sub-No 33), November 18, 2026.

[336] BNSF Comments and Request for Conditions.

[337] U.S. Energy Information Administration, "Number and Capacity of Petroleum Refineries (Area: Louisiana)," June 26, 2026, https://www.eia.gov/dnav/pet/pet_pnp_cap1_dcu_SLA_a.htm; U.S. Energy Information Administration, "Number and Capacity of Petroleum Refineries (Area: Texas)," June 26, 2026, https://www.eia.gov/dnav/pet/pet_pnp_cap1_dcu_STX_a.htm.

[338] U.S. Energy Information Administration, "Number and Capacity of Petroleum Refineries (Area: U.S.)," June 26, 2026, https://www.eia.gov/dnav/pet/pet_pnp_cap1_dcu_nus_a.htm.

Coast saw their stock prices rise in anticipation of increased volume of Venezuelan crude imports.[339]

213. In this section, I discuss the impact of the Proposed Transaction on the Gulf Coast area. I find noticeable areas of concern, especially considering that many shippers out of these refineries today have only limited rail shipping options. For example, Dr. Israel's "Competition Version 1" shows that about {{[redacted]}} of 2023 rail revenue originating or terminating in the Gulf Coast is closed to UP in the Gulf Coast.[340]

1. The Proposed Transaction has the potential to harm shippers through a reduction in horizontal competition in the Gulf Coast Area

214. In this section, I discuss economic evidence on the potential impact of the Proposed Transaction on horizontal competition as it relates to BNSF's Gulf Coast Conditions request. This evidence is based on the same analyses I discussed in Section III, this time limiting the geographic scope of interest to shipments associated with what I refer to as the *Gulf Coast Area*. I understand the Gulf Coast Area consists of all shipments associated with the following geographies: New Orleans, LA-MS (BEA 83), Baton Rouge, LA-MS (BEA 84), Lafayette, LA (BEA 85), Lake Charles, LA (BEA 86), Beaumont-Port Arthur, TX (BEA 87), Houston-Galveston-Brazoria, TX (BEA 131), and Corpus Christi, TX (BEA 132).[341]

(a) The Proposed Transaction has the potential to harm competition for shipments between corridors involving the Gulf Coast Area

215. In Section III.A I describe how Dr. Bailey's approach to analyzing competition between corridors understates the potential impact of the Proposed Transaction through a reduction in horizontal competition. In particular, I find that Dr. Bailey reports a limited number of origin-commodity and destination-commodity pairs in her Verified Statement through the use of arbitrary choices that, when reasonably modified, result in a much larger potential for impact.

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[339] Myles McCormick, "US oil refiners gear up for comeback of Venezuelan crude," *Financial Times*, January 6, 2026, https://www.ft.com/content/574fb50d-e26c-4d20-ba7a-99e9831f292c?syn-25a6b1a6=1.

[340] See my workpapers.

[341] I understand these BEAs are listed in the Baranowski and Zebrowski VS.

216. I turn now to the analysis of competition between corridors in the Gulf Coast Area. In doing so, I rely on Dr. Bailey's methodology, after implementing the reasonable modifications to the arbitrary choices she adopts in her own analysis, which I describe in Section III.A. Results for competition between destinations (for an origin in the Gulf Coast Area), and competition between origins (for a destination in the Gulf Coast Area) are presented, respectively, in Figure 32 and Figure 33 below.

Figure 32: Analysis of Competition Between Corridors for Origin-Commodity Pairs in the Gulf Coast Area {{



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Figure 33: Analysis of Competition Between Corridors for Destination-Commodity Pairs in the Gulf Coast Area {{



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217. I find that:

- *When considering commodities defined by 4-digit STCCs*:
    - Dr. Bailey's 50/10 test (limited to rail traffic) identifies as potentially affected {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue.
    - The HHI-based test (limited to rail traffic) triggers the structural presumptions in the 2023 Merger Guidelines for {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue.
    - Of the pairs that are screened by the HHI-based test, reasonable modifications to Dr. Bailey's CLA test identify {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pair associated with {{[redacted]}} in 2023 rail revenue.

- *When considering commodities defined by 7-digit STCCs*:
    - Dr. Bailey's 50/10 test (limited to rail traffic) identifies as potentially affected {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue.
    - The HHI-based test (limited to rail traffic) triggers the presumption in the 2023 Merger Guidelines for {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue.
    - Of the pairs that are screened by the HHI-based test, reasonable modifications to Dr. Bailey's CLA test identify {{[redacted]}} origin-commodity pairs associated with {{[redacted]}} and {{[redacted]}} destination-commodity pairs associated with {{[redacted]}} in 2023 rail revenue.

(b) The Proposed Transaction has the potential to harm competition for shipments within corridors involving the Gulf Coast Area

218. In Section III.B I describe how Dr. Bailey's and Dr. Israel's approaches to the analysis of competition within corridors understate the potential impact of the Proposed Transaction on horizontal competition. In particular, I find that both Dr. Bailey and Dr. Israel report a limited number of corridors while an alternative, reasonable approach would identify more corridors impacted by a potential reduction in horizontal competition than what they report.

219. In Figure 34 below I present the results of this alternative analysis of competition within corridors, for corridors with at least one end in the Gulf Coast Area.

Figure 34: Alternative Analysis of Competition Within Corridors (at Least One End in the Gulf Coast Area) {{



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220. As Figure 34 shows, the alternative analysis of competition within corridors (as described in Section III.B.3 above) finds {{ }} corridors will lose alternatives and result in, at most, three routes with at least one independent option, totaling over {{ }} in 2023 rail revenue.

(c) Dr. Israel's model shows that the Proposed Transaction would raise shipping rates in the Gulf Coast Area

221. In Section III.C, I explain that Dr. Israel presents an econometric model that finds that rail rates are lower where more railroads serve either the destination or origin of a shipment. In Section III.C.2, I further show that refinements of Dr. Israel's model result in an even greater estimate of the horizontal harm from the Proposed Transaction than the one Dr. Israel already finds, implying an increase in shippers' rail expenses as a result of the Proposed Transaction of {{ }} per year.[342]

222. In Figure 35 below I present the results of this analysis, limited to shipments that originate or terminate in the Gulf Coast Area. Resulting estimates are associated with an increase in shippers' rail expenses for shipments related to the Gulf Coast Area of up to {{ }}.

[342] As I noted before, I do not necessarily endorse Dr. Israel's model, even with refinements.

Figure 35: Effects of Horizontal Competition on Shipments' Rates in the Gulf Coast Area (Dr. Israel's UP/NS Regression Model with Data Corrections and Refinements) {{

	Israel Model (with Data Corrections)	Refined Israel Model 1	Refined Israel Model 2	Refined Israel Model 3
Implied Annual Price Effects on Shipments Involving UP or NS (2023 $M)	***$18***	***$74***	***$60***	***$87***
Implied Annual Price Effects on All Class I Shipments (2023 $M)	***$28***	***$113***	***$70***	***$121***

Source: Israel VS Workpapers.
Notes: Based on results of Israel VS, Figure 10 UP/NS All Simple Interline Traffic model and sample (with data corrections) with refinements (see Figure 13 for implied annual price effects). Pricing percentage effects are applied to 2023 shipments originating or terminating in the Gulf Coast Area in Dr. Israel VS Figure dataset to calculate implied annual price effects.

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2. The potential use of tie-in sales and rate uplift to harm shippers are relevant to the Gulf Coast Area

223. In Section IV.E.1, I explained that Dr. Israel's discussion of efficient contracts as a reason why shippers would not be adversely impacted by the Proposed Transaction is insufficient. In particular, I explained that in the economics literature of bargaining, when two parties negotiate they consider the expected surplus of the negotiation, the outcome they would obtain if negotiations do not succeed, and the relative strength of the negotiation power for each party, and that these factors have the potential to change after the Proposed Transaction given that a combined UP/NS could have increased scale (and opportunities such as servicing closed facilities) that it could leverage (i.e., bundle) in contract negotiations.[343] To the extent shippers associated with the Gulf Coast Area have relatively weakened bargaining leverage versus a combined UP/NS, the Proposed Transaction could adversely impact those shippers.[344]

[343] See ¶ 142 above.

[344] See n. 238 above.

224. In addition, the bundling scenarios I discuss in Section V.A are relevant to the Gulf Coast condition:

- For the concerns I discuss in Section V.A.1 related to tie-in sales across corridors, consider the shipper {{[redacted]}}, a leading U.S. producer of chemical substances.[345] In 2023, it shipped (i) {{[redacted]}} in shipments that were sole-served by UP on both ends and that involved the Gulf Coast Area and (ii) {{[redacted]}} in shipments elsewhere, single-served by NS on both ends.[346] To the extent this shipper will contract with a combined UP/NS under demand uncertainty, there is a potential for a combined UP/NS to raise rates on this shipper.
- For the concerns I discuss in Section V.A.2 related to tie-in sales within corridors, the risk of potential foreclosure for "open to close" shipments originating or terminating in the Gulf Coast Area is approximately {{[redacted]}}.[347] To the extent rate regulation constrains pricing on these shipments, there is a potential for a combined UP/NS to raise rates on some of these shipments by tying in segments within these corridors.

225. Lastly, the rate uplift discussion in Section V.B is relevant to the Gulf Coast condition. For example, {{[redacted]}}, a chemical company, has UP shipments in the Gulf Coast Area and NS shipments in different parts of the country. When the uplift percentage of {{[redacted]}} (based on Dr. Israel's model with data corrections) is multiplied by NS's revenues from shipments of {{[redacted]}} that do not involve UP, {{[redacted]}}, this would imply {{[redacted]}} in potential rate increases per year for {{[redacted]}} on its NS shipments.[348]

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[345] {{[redacted]}}

[346] See my workpapers.

[347] This uses the same methodology as in Figure 16, so these shipments are a subset of those I identify in that figure. For "open to open" shipments, the risk of potential foreclosure from the UP/NS Proposed Transaction according to Prof. Salop's theory submitted on behalf of UP in the CPKC proceeding and Dr. Israel's data is approximately {{[redacted]}}. See my workpapers.

[348] See my workpapers. {{[redacted]}}

B. BNSF'S CONDITION PROPOSALS NOT TIED TO A PARTICULAR GEOGRAPHY WOULD ADDRESS, AT LEAST TO SOME EXTENT, THE POTENTIAL FOR HARM TO THE RAIL NETWORK

226. I understand BNSF is proposing the STB adopt, in the event the merger is approved, two conditions that are not tied to a particular geography: BNSF's Open Access Condition, and BNSF's Interline Preservation Mechanism condition.[349] Both are designed to address, at least to some extent, potential merger-related harms throughout the network. They do so either by creating new competition where none exists (OAC), or by preserving competition by guaranteeing the availability of the same interline route alternatives shippers can currently rely on (IPM). In this section, I discuss the economic merits of both conditions.

1. BNSF's Open Access Condition proposal

227. I understand BNSF's OAC is a reciprocal switching framework by means of which certain sole-served shippers by UP or NS could access rail services provided by competing carriers located nearby, a structure that is similar to the Canadian "interswitching" system, a decades-old regime of regulated competitive access.[350] Under BNSF's OAC proposal, shippers with a facility currently sole-served by UP or NS and with access to a working interchange with another railroad within 20 radial miles of such facility will have the right to choose between (i) service fully provided by the merged entity or, alternatively, (ii) service provided by a combination of the competing Class I railroad (for the linehaul portion of the shipment) and a combined UP/NS (for the local switching service necessary for the connection with the linehaul carrier).[351] In other words, the OAC allows shippers that today are captive to UP and NS (and

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[349] BNSF Comments and Request for Conditions.

[350] Canadian Transportation Agency, "Interswitching," https://otc-cta.gc.ca/eng/interswitching (In Canada, the Canadian Transportation Agency (CTA) "regulates some interswitching to make sure shippers have fair and reasonable access to service from more than one railway, which can increase competition in the system. In particular, we set rates each year for … shippers whose siding or facility at origin or destination is: [] within 30 kilometres (in a straight line) of an interchange; [] or 'reasonably close' to an interchange, as decided by the CTA. … The CTA also regulates long-haul interswitching (LHI), which is not limited to 30 kilometres, although other conditions apply.").

[351] In terms of the rates at which the merged carrier would be compensated for its role in the first or last mile(s) of these movements, I understand BNSF's proposal establishes that switching charges would be

located sufficiently close to an interchange in which a competitor operates) to potentially benefit from competition in linehaul rates that currently does not exist.

228. In Section III, I demonstrated that the merger of UP and NS is likely to increase certain shipper rates as a result of a loss of horizontal competition throughout the railroad network. In Section IV, I discussed the potential for harm to the rail network arising from the traffic shifts the Proposed Transaction can bring about and their adverse impact on service offered and investments made or planned by the non-merged rail carriers in their networks. These overall potential harms to competition throughout the rail network cannot necessarily be "directly or effectively mitigated" via targeted remedies.[352]

229. BNSF's OAC proposal would address, at least to some extent, merger-related harms throughout the network. I expect BNSF's OAC proposal to have the following positive implications:

- For qualifying shippers, the proposal creates alternatives and the ability to enjoy the benefits of competition where none existed. These shippers would be better off as a result.
- For non-merging carriers, the remedy enables the possibility of competing where they were unable to do so pre-merger. Such enhanced competition offsets some of the harms to competition that I discuss above.

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based on the merged carrier's Uniform Railroad Costing System (URCS) data, accounting for (1) the cost of moving cars between a customer facility and a yard; (2) additional costs associated with performing an interterminal transfer to another railroad; (3) distance from the customer facility to the interchange; (4) operational differences between unit-train and non-unit-train traffic; and (5) a 20% adjustment on switching charges that accounts for the fact that interterminal switching is more complex than ordinary industry switching because the railroad must carry the traffic to another carrier's interchange rather than placing it directly into its own linehaul operation. I also understand the switching fees would be published in a public tariff and updated annually, with increases capped by the industry's Railroad Cost Adjustment Factor – Unadjusted (RCAF-U). Finally, I understand the proposal also includes discussions related to service requirements and enforcement mechanisms for effective implementation. I understand this is all discussed in BNSF Comments and Request for Conditions. As with any rate at which access is mandated in a regulated environment, the STB should periodically examine and monitor those rates to ensure they do not distort investments or create other inefficiencies that offset the benefits of the OAC proposal.

[352] STB Rules, p. 10.

230. In its 2001 rules the STB explicitly acknowledged that "shippers who are served by a single rail carrier may benefit from having another carrier nearby."[353] For example, the STB noted that such shippers may "construct[] (or propos[e] to construct) a connection to a second carrier[,]" "transload[] freight by truck to a second carrier," or even "negotiate a long-term contract before choosing to locate a new plant … or to adjust production levels at plants already located along those lines."[354] BNSF's OAC proposal makes these benefits attainable, operationalizing their reach without asking shippers to bear the responsibility and/or the cost of the initiatives to compensate for the overall potential for harm associated with the Proposed Transaction.

2. BNSF's Interline Preservation Mechanism Condition

231. In this section, I discuss BNSF's IPM condition, a second proposal BNSF requests the STB to adopt in the event the Proposed Transaction is approved.

232. As discussed in Section IV.A above, in 2023 Class I carriers interlined movements that accounted for roughly {{[redacted]}} of rail revenues associated with shipments in the U.S. in that year. As this figure demonstrates, the ability to interline is important to the rail industry.

233. The ability to interline also increases competition and helps discipline rail rates in each corridor. As I demonstrated in Section III.C above, independent routes such as the ones that interline movements can create are meaningful to the rates shippers pay for rail services. While a shipper may be able to go from an origin to a destination using single-line service, the presence of an alternative route can allow that shipper to enjoy the benefits of competition.

234. Currently, UP and NS not only connect with each other but also cooperate with the other four Class I carriers in providing service across multiple successful interline routes.[355] It is this ability that BNSF seeks to preserve with its proposal to condition the approval of a UP/NS merger on the adoption of a mechanism to preserve interline cooperation between the merged

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[353] STB Rules, p. 17.

[354] STB Rules, p. 18.

[355] In 2023, UP and NS took part in approximately {{[redacted]}} (by revenue) of roughly {{[redacted]}} in interlined movements in the United States. See Figure 14.

carrier and non-merging railroads. Of course, one has to weigh the benefits of this preservation against the claimed benefits of the merger with and without such a condition.

235. I understand BNSF's IPM essentially requires a combined UP/NS to (i) preserve all interline options available today with (ii) defined rates tied to comparable moves.[356] This is meant to be achieved by allowing BNSF and other railroads to permanently reach customers served by UP or NS via interline movements set under terms defined by an STB-supervised haulage program.

236. Similar to Applicants' CGP mechanism, I understand BNSF's IPM proposal would permit non-merged carriers to quote through rates for interline movements in which UP or NS participate, relying on predetermined divisions for the UP or NS leg of the movement.[357] I understand the rates paid to a combined UP/NS for their participation in the movement would be derived from the merged carrier's own traffic data (similar to CGP), updated quarterly (more frequently than the annual CGP updates), and based on a proportional rate matrix determined under similar conditions to the one used for the I-5 Agreement (a condition implemented with the approval of the Union Pacific / Southern Pacific merger in 1996).[358, 359] Applicants' expert Dr. Israel acknowledges and praises the value of the I-5 Agreement to the rail industry.[360]

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[356] BNSF Comments and Request for Conditions.

[357] Israel Supplemental VS, ¶ 12. Dr. Israel refers to CGP as being "analogous to a haulage agreement[.]" Dr. Israel also notes that the STB "has recognized that haulage agreements promote competition." Israel Supplemental VS, ¶ 13.

[358] UPSP Decision, pp. 17-18.

[359] I understand BNSF Comments and Request for Conditions describes the calculation of proportional rates in BNSF's IPM proposal.

[360] Dr. Israel explains that the I-5 proposal and the CGP proposal "share a number of fundamental elements[,]" with both allowing "the non-incumbent carrier(s) to establish a guaranteed rate for interline service." Israel VS, ¶ 156. Dr. Israel additionally notes that (i) "UP's experience with the I-5 Agreement demonstrates that carefully designed market-based gateway rates can successfully enhance competition, and that this occurs in ways beyond simply sharing rates[;]" (ii) the I-5 agreement "generated significant non-price benefits and resulted in a more competitive overall product[;]" and (iii) "[s]hippers have made extensive use of this competition under the I-5 Agreement." Israel VS, ¶¶ 157, 158. Importantly, Dr. Israel notes that "[t]he I-5 Agreement enhanced geographic competition through improved competitive options to otherwise sole-served shippers." Israel VS, ¶ 160.

237. Differently from Applicants' CGP mechanism, I understand BNSF's IPM condition is not limited to a narrowly defined set of traffic.[361] Instead, it includes movements between the BNSF system (as well as that of each of the non-merged carriers) and the NS system for which there is no practical route alternative that avoids a combined UP/NS.[362] Also differently from CGP, I understand BNSF's IPM proposal is permanent, which prevents transitory distortions of incentives and defines a clear set of rules for the future.

238. I understand BNSF puts forth the IPM for consideration of the STB as a response to Applicants' vague commitment to maintain gateways open at commercially reasonable terms.[363] Like BNSF's OAC, BNSF's IPM condition would address, to at least some extent, merger-related harms throughout the network.

239. I expect BNSF's IPM proposal to have the following positive implications:

- For shippers associated with qualifying movements, the proposal guarantees the availability of the same route alternatives those shippers can currently rely on, which helps to preserve competition.
- For non-merging carriers, the proposal guarantees the possibility to continue servicing the customers that those carriers can access today. The condition could offset some of the potential harms to competition related to traffic shifts and losses that I discuss above.

[361] I understand BNSF Comments and Request for Conditions describes the traffic included under the scope of BNSF's IPM proposal.

[362] For example, Applicants have demonstrated that even in the narrowly defined conditions of their CGP programs (both "original" and "expanded"), expanding the set of traffic covered by their proposal generally leads to increased net benefits for shippers, as estimated by Dr. Israel (estimates that are subject to the same caveats I discuss in Section VI). Israel Supplemental VS, Figures 7 and 9.

[363] Israel VS, Section III.G.

VERIFICATION

I, Dennis W. Carlton, 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 18 day of November, 2026.



Dennis W. Carlton

APPENDIX A – HORIZONTAL COMPETITION

A. COMPETITION BETWEEN CORRIDORS

1. Using the Merger Guidelines' structural presumptions to analyze competition between destinations (for an origin) and competition between origins (for a destination)

240. To implement HHI-based thresholds that trigger structural presumption based on the 2023 Merger Guidelines, I calculate originating shares and terminating shares using the same methodology that Dr. Bailey relied on for her implementation of her 50/10 test.[364] I then apply the concentration thresholds set forth in the 2023 Merger Guidelines separately to originating shares and terminating shares, while retaining Dr. Bailey's 50/10 participation shares to determine whether a particular geography – commodity combination would be identified for further evaluation.

241. For example, in Dr. Bailey's stylized example involving lumber shipments from Seattle, Washington, the UP and NS combination triggers the termination screen using either her 50/10 test or the HHI-based one.[365] In this case, the combination of UP and NS would increase the termination HHI by over 1,500 HHI points, exceeding the 100-point threshold required by the structural presumption. In addition, shares are such that the second condition in the Guidelines is satisfied, via sum of shares (57.1% > 30%) or post-merger HHI levels (roughly 5,100 HHI points, in excess of the 1,800-point threshold for a highly concentrated market). The combination of UP and NS would still trigger the participation screen just as it did in Dr. Bailey's example.

242. Under this methodology, an origin- or destination-commodity combination is identified for further evaluation if either 1) a structural presumption under the 2023 Merger Guidelines is triggered under the origination or termination screen or 2) Dr. Bailey's 50/10 threshold is triggered under the participation screen.

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[364] Bailey VS, Appendix G.

[365] Bailey VS, Figure G.1.

243. As Dr. Bailey noted, participation screens are different from the originating and terminating screens as both UP and NS can participate on the same route.[366] Since multiple railroads may participate in an interline movement, the sum of participating traffic across all railroads on a route may exceed 100 percent of the route's total traffic. For example, in Dr. Bailey's stylized example involving lumber shipments from Seattle, WA, the three participating railroads account for a combined 190 tons of participating traffic, whereas the total shipment volume is only 140 tons.[367] Participation tons do not provide a mutually exclusive allocation of traffic across railroads and therefore do not lend themselves directly to conventional share or HHI calculations. Given this constraint, I retained the same 50/10 participation screen used by Dr. Bailey to account for participating carriers.

2. Technical assumptions underlying Dr. Bailey's Critical Loss Analysis

244. Dr. Bailey's CLA decision rule holds that a ratio between affected and available volume of less than 1 suggests no need for further review. Below are the assumptions underlying this threshold:

(1) The critical loss is approximately 10% (of the affected volume), which is derived from an assumption of 50% gross margin and a hypothetical 5% price increase.[368] Dr. Bailey does not state this assumption but does cite to the Majure VS.[369]

(2) If the available volume is (at least) 10 times larger than the critical loss volume, no concern arises.[370] This assumption is also not stated by Dr. Bailey and only asserted

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[366] Bailey VS, Appendix G, ¶¶ 8-10.

[367] Participating tons for the three railroads: NS (50), UP (50), BNSF (90). Bailey VS, Figure G.1.

[368] Note that under the typical Critical Loss formula, assuming a 5% price increase and a 50% margin would result in a critical loss of approximately 9.1% (5% / (5%+50%) = 9.1%). Farrell and Shapiro (2008), p. 3.

[369] Bailey VS, Appendix G, n. 3. In his Verified Statement, Dr. Majure cites to Vellturo VS, noting that "comparing available volume to the capacity handled by the merging parties prior to the merger (affected volume)" is done "[u]nder his assumption of a 50 percent profit margin[.]" Majure VS, n. 61.

[370] Another way to interpret this is that a price increase of 5% would not be profitable if the volume loss is greater than 10% of the available capacity.

in Dr. Majure's analysis with little justification beyond a brief reference to the same number used in Dr. Vellturo's VS.

(3) Dr. Vellturo's approximation of the critical loss ratio as the percentage change in price divided by the "marginal contribution" (gross margin).[371] Under assumption (1) those are 5% and 50%. Thus Dr. Vellturo's critical loss is 10% (5%/50%).[372]

(4) The logic behind the traditional CLA is that the merged firm will not find it profitable to impose such a price increase if the actual loss is higher than the critical loss. In practice, this typically requires measuring the firm's actual loss in sales volume that would result from a 5% price increase.[373] Dr. Vellturo, Dr. Majure, and Dr. Bailey do not provide any empirically supported estimation of actual losses in their Verified Statements.

245. Because the affected volume is approximately ten times the critical loss volume under the assumptions in (1), the assumptions together amount to simply comparing the affected volume to the available volume.[374] In other words, a 5% price increase would not be profitable if:

Assumption (1): $Critical\ Loss\ volume = 10\% \times Affected\ volume$

Assumption (2): $10 \times Critical\ Loss\ volume < Available\ volume$

$$\Rightarrow 10 \times (10\% \times Affected\ volume) < Available\ volume$$

$$\Rightarrow \frac{Affected\ volume}{Available\ volume} < 1$$

[371] Vellturo VS, p. 144 (Dr. Vellturo approximates the Critical Loss as X/M). Critical Loss is defined as X / (X+M), where X is the percentage price increase and M is the gross margin. Katz and Shapiro (2003), p. 50.

[372] Vellturo VS, p. 144.

[373] Katz and Shapiro (2003), p. 50.

[374] Majure VS, n. 61.

3. **Additional figures**

Appendix Figure 1: Outcomes from Dr. Bailey's 50/10 Test by Number of Years Triggered in 2019-2024 {{



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Appendix Figure 2: Dr. Bailey's 50/10 Test with Reasonable Modifications (STCC7-BEA)

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Appendix Figure 3: HHI-Based Test Under Alternative Assumptions (STCC7-BEA) {{



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Appendix Figure 4: Dr. Bailey's CLA Test for Competition Between Corridors with Reasonable Modifications Applied to Pairs Flagged from HHI-Based Test (STCC7-BEA) {{



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Appendix Figure 5: Dr. Bailey's CLA Test for Competition Between Corridors with Reasonable Modifications (Applied to Pairs Flagged from Dr. Bailey's 50/10 Test with Reasonable Modifications) {{



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Appendix Figure 6: Dr. Bailey's CLA Test with Reasonable Modifications that Keeps All Traffic in the Affected Volume (Applied to Pairs Flagged from HHI-Based Test) {{



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B. COMPETITION WITHIN CORRIDORS

1. Additional figures

Appendix Figure 7: Dr. Bailey's Analysis of Competition Within Corridors {{



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Appendix Figure 8: Dr. Israel's Analysis of Competition Within Corridors {{



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Appendix Figure 9: Alternative Analysis of Competition Within Corridors {{



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C. ECONOMETRIC ANALYSIS OF COMPETITIVE EFFECTS

1. Dr. Israel's regression model

246. Dr. Israel estimates the following regression model using 2019 to 2024 waybill data. In his model, he uses data aggregated by "railroad, route, commodity, shipper, year-month, car type, car owner, pricing document type, and unit train flag."[375] Dr. Israel excludes movements outside of the United States and limits his analysis to studying interline movements between two Class I railroads.[376]

$$log(Y) = \beta_1 \#\ of\ Class\ I\ RRs\ at\ Origin + \beta_2 \#\ of\ Class\ I\ RRs\ at\ Destination + \beta_3 Rule\ 11 + \beta_4 Through\ Rate + \beta_5 UP + \beta_6 NS + \beta_7 Other\ Variables + Fixed\ Effects + \varepsilon$$

Where:[377]

- *Y* is the monthly average rate per car-mile.
- *Number of Class I Railroads Serving at Origin* and *at Destination* measures the number of Class I railroads serving an origin or destination for a group of commodities using Dr. Israel's Competition Version 1 definition of competition.[378]
- *Rule 11* is an indicator variable that equals one for Rule 11 shipments.
- *Through Rate* is an indicator variable that equals one for through rate shipments.
- *UP* is an indicator variable that equals one for UP shipments, and *NS* is an indicator variable that equals one for NS shipments.[379]
- *Other variables* include:

[375] Israel VS, n. 32.

[376] Israel VS, ¶ 113.

[377] Israel VS, Figure 10, Israel VS workpapers.

[378] Israel VS, ¶ 50.

[379] Dr. Israel calls these "reporting railroad dummies." Israel VS, Figure 10.

- *Log of GDP Per Capita at Origin* and *at Destination* are the log of annual GDP per capita for the origin county and the destination county, per the Bureau of Economic Analysis.
- *Log of Personal Income Per Capita at Origin* and *at Destination* are the log of annual personal income per capita for the origin county and the destination county, per the Bureau of Economic Analysis.
- *Log of Population at Origin* and *at Destination* are the log of population for the origin county and the destination county, per the Bureau of Economic Analysis.
- *Distance* and *Distance squared* measure the shipment distance in miles (and miles squared).
- *Weight* and *Weight squared* measure the amount shipped in tons per car (and tons per car squared).

- *Fixed Effects* includes fixed effects for STCC3 (hazard), car ownership, AAR car initial, calendar month, indicators for pricing arrangements (contract, private quote, tariff, and other), and unit train status.

2. **Additional Figures**

Appendix Figure 10: Dr. Israel's UP/NS Regression Model with Data Corrections and Refinements {{



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Appendix Figure 11: Dr. Israel's All-Class I Regression Model with Data Corrections and Refinements {{



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Appendix Figure 12: Dr. Israel Competition Version 1 Originating and Terminating Revenue {{



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APPENDIX B – CGP

A. THE DETERMINATION OF THE CGP RATE

247. The CGP rate is the maximum rate that BNSF and/or CSXT can use for the UP/NS portion of an interline movement for eligible CGP traffic.[380] CGP rates are determined by a formula based on what Applicants describe as a set of "comparable" movements as follows:

- *Comparable traffic*: UP/NS calculates CGP rates across interline shipments in the input set, a set of traffic that satisfies a series of specific conditions identified by Applicants.[381] This set is split into two matrices of 92 cells (one for BNSF and one for CSXT) reflecting combinations of 23 commodity groups and 4 distance buckets.[382]
- *Formula:* UP/NS calculates rates for the set of shipments in each of these 92 cells on a rate per car mile basis; this rate is only a base rate and excludes other charges such as accessorial fees and fuel surcharges.[383] Within each cell, UP/NS would then calculate the applicable CGP rate as the volume- (carload-) weighted 70th percentile for the rate per car

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[380] Novak VS, ¶ 26.

[381] Dr. Israel refers to this set as the "input set." Israel VS, Appendix C, ¶¶ 3-4. Shipments that belong to the input set are those that are non-CGP eligible; cover routes between the western and eastern portions of the United States; both originate and terminate on UP/NS or that are interchanged between UP/NS and BNSF or CSXT; and took place during the most recent 12-month period (from October 1 to September 30). See also Novak VS, ¶ 27 ("Initially after the merger, UP/NS's requirements will be based on rates UP and NS charged for similar shipments moving to and from mid-continent gateways—that is, traffic they interchanged with each other, or with BNSF or CSX (for westbound or eastbound moves, respectively)— except for movements that would be eligible for Committed Gateway Pricing.").

Applicants also impose a minimum requirement of 100 qualifying shipments per cell within the last four quarters, to "improve confidence in the representativeness of the Committed Gateway Pricing data and to reduce the undue influence of outliers[.]" Novak VS, ¶ 37. Applicants also note that "to account for fixed costs and prevent disproportionately low rates on short-haul movements" revenue requirements for shipments that move less than 250 miles under UP/NS will be calculated as the product between 250 and the lower CGP-rate per mile in the "Less than 500 miles" and "500 miles to less than 1,000 miles" segments. Novak VS, ¶ 38.

[382] Novak VS, ¶¶ 27-33. See also Novak VS, Attachment 1 ("Commodity-Based Segments"). The segmentation based on distance considers the mileage moved under UP/NS rates, rather than the entire length of an interline shipment, if different. See Novak VS, Appendix A, p. 26.

[383] Novak VS, ¶ 34. For any given UP/NS shipment (or segment of a shipment), rates per car mile are calculated as the ratio between the UP/NS revenue per carload and the UP/NS mileage for that shipment.

mile. This rate, multiplied by the specific mileage on the UP/NS portion of a given CGP-eligible shipment's route (to or from the gateway), determines UP/NS's revenue requirements for that CGP-eligible shipment.[384]

B. DR. ISRAEL'S MODEL PRODUCES UNREALISTICALLY HIGH SHIPPER IMPLIED ELASTICITIES CASTING DOUBT ON THE RELIABILITY OF HIS WELFARE ESTIMATES

248. The model that Dr. Israel uses to estimate net welfare effects from CGP uses implied elasticities of demand that are far higher than those in the economic literature. Using elasticity estimates in accord with those in the literature materially alters the results of his CGP model, showing that his results are not reliable.[385]

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[384] The following example illustrates the application of the proposed pricing scheme:

> A CGP-eligible BNSF shipper of construction products needs to reach a destination in the eastern United States that is sole-served by NS. BNSF and NS interchange traffic at gateway A, with BNSF covering 450 miles from origin to A, and NS covering 700 miles from A to the destination.
>
> In the year prior, the set of comparable shipments for the relevant CGP "cell" ("Construction" X "500 to less than 1,000 miles") included 600 carloads at a per car mile rate of $3 and 400 carloads at a per car mile rate of $5. Thus, the applicable CGP rate in this case is $5 per car mile, because $5 is the 70th (carload-weighted) percentile in the distribution of per car mile rates.
>
> As a result, when the shipper asks BNSF for a through rate to go from origin to destination, BNSF knows that UP/NS will ask for a revenue requirement equal to $3,500 per carload, which is the product of the CGP rate ($5) and the 700 miles the shipment will travel on the merged entity's tracks. If BNSF's per carload rate to take the shipment from origin to gateway A is $1,800, then BNSF can automatically quote the shipper a through rate of $5,300 per carload for the full length of the shipment.

[385] Walid M. Abdelwahab, "Elasticities of Mode Choice Probabilities and Market Elasticities of Demand: Evidence from a Simultaneous Mode Choice/Shipment-Size Freight Transport Model," *Transportation Research Part E: Logistics and Transportation Review,* Vol. 34, No. 4 (1998): 257-266 (hereinafter, "Abdelwahab (1998)"); Gerard J. McCullough and Ishay Hadash, "Price Effects in Truck-Competitive Railroad Markets," in *U.S. Freight Rail Economics and Policy: Are We on the Right Track*, edited by Jeffrey Macher and John Mayo, 1st edition, Routledge (2019), 114-126 (hereinafter, "McCullough and Hadash (2019)"); Jeppe Rich, Peter Mikal Holmblad, and Christian Overgård Hansen, "A weighted logit freight mode-choice model," *Transportation Research Part E: Logistics and Transportation Review*, Vol. 45, No.6 (2009): 1006-019; Michel Beuthe, Bart Jourquin, and Nathalie Urbain, "Estimating Freight Transport Price Elasticity in Multi-mode Studies: A Review and Additional Results from a Multimodal Network Model," *Transport Reviews,* Vol. 34, No. 5 (2014): 626-644.

249. Dr. Israel applies a four-step procedure to estimate net effects from CGP. *First,* Dr. Israel derives his estimate of shippers' demand responses (with their implied shippers' demand elasticities) using data from the CCWS and the Class I carriers' Traffic Tapes, limiting to the CGP commodity-distance cells for which he deems there are "sufficient data[.]"[386] *Second,* Dr. Israel simulates how the merging parties would set profit maximizing rates in the post-merger world (without CGP implemented) using his estimate of shippers' demand responses (from the first step). *Third,* Dr. Israel simulates how the merging parties would set profit maximizing rates in the post-merger world (with CGP implemented), again using his estimate of shippers' demand responses (from the first step).[387] *Fourth,* he compares the simulated rates and quantities across the two counterfactual worlds to calculate the welfare impact of CGP.[388] Therefore, these estimates of shippers' demand responses from Dr. Israel's first step (and their implied shippers' demand elasticities) are a key input in Dr. Israel's welfare simulation procedure. As such, in order to show his results are reliable, I investigate what happens if I assume a more reasonable value of demand elasticity, and find that his results change materially, undermining the reliability of his conclusion.

250. To illustrate my concern about the reliability of Dr. Israel's estimation of the net welfare effects from CGP, I summarize in Appendix Figure 13 the distribution of implied demand elasticities associated with all shippers reported in Dr. Israel's analysis, both unweighted and

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[386] Israel VS, ¶ 180, Appendix C, ¶ 7. See also Israel VS, Appendix C, ¶ 41 ("In implementing my model, I focus on the set of CGP cells for which I have sufficient data to calibrate the model to ensure the simulation results are representative. Using UP's and NS's 100 percent Waybill data, as well as the 100 percent Waybill data provided by BNSF and CSX, I am able to determine the total number of carloads shipped in each of the input and application sets, regardless of whether I have sufficient information to include these shipments in the model. I perform the model calibration and simulation on the set of CGP cells where at least 10 percent of the number of carloads in both the input and application sets (before the redistribution of carloads excluded from the model) have sufficient information to be included in the model.").

[387] Dr. Israel's model assumes BNSF and CSXT charge the same post-merger prices in both the with and without CGP scenarios. He does so for "tractability and computational reason," despite acknowledging that both carriers will have an incentive to deviate from their profit maximizing post-merger pricing strategy if CGP is implemented. Dr. Israel asserts this is a "third-order incentive and therefore its effect is likely to be extremely small." Israel VS, Appendix C, n. 9.

[388] Israel VS, Appendix C, ¶ 40.

weighted by their number of carloads pre-merger.[389] These involve Dr. Israel's shipper-level implied elasticities of demand for carloads with respect to the overall rate associated with a (fixed) combination of geographic corridor, commodity, carrier route, and contracting arrangement.

Appendix Figure 13: Implied Shippers' Demand Elasticities from Dr. Israel's Simulation Model {{



}}

251. As shown in Appendix Figure 13, half of the shippers in Dr. Israel's simulation exhibit implied demand elasticities with respect to rail rates of around {{[redacted]}} or higher, with an average of approximately {{[redacted]}} – far exceeding the typical elasticities reported in the literature. For instance, an article that Dr. Israel cites in his own discussion shows elasticities of rail demand with respect to rail prices as low as 0.6, and below 2.5 for all but one (of eight) commodity groups.[390, 391] Dr. Israel's estimates imply that, for example, for a CGP-eligible

[389] Dr. Israel does not report the implied shipper elasticities in his Verified Statement or the associated workpapers. To calculate these elasticities, I instead rely on Dr. Israel's log-linear demand assumption along with the calibrated parameter values and data on pre-merger prices, both of which can be extracted from running the code he provides in his workpapers (after minor modifications). Specifically, for each shipper i, $\epsilon_i = b_i * d_i * p_i$, where d_i is the total mileage, p_i is the pre-merger rate per car-mile associated with the full route, and b_i is the price coefficient in Dr. Israel's model. Israel VS, Appendix C, ¶ 10.

[390] Israel VS, n. 74.

[391] McCullough and Hadash (2019), Table 5.5. As another example, Abdelwahab (1998) analyzes data from the Commodity Transportation Survey obtained from the US Bureau of Census and reports similar rail demand elasticities with respect to rail rates, ranging from 0.91 to 2.49 across commodity groups. See Abdelwahab (1998), Table 3. See also Chen (2026), which describes the mean and median own-price elasticity of demand for rail services across different specifications, with medians ranging from 1.45 to 1.53 and means ranging from 1.51 to 1.60 (when accounting for endogeneity concerns). Chen (2026), Table 5. The author also notes that these estimates are "comparable to estimates reported in the transportation literature." Chen (2026), p. 14.

shipper at the median of the elasticity distribution (elasticity of approximately {{[redacted]}}), a CGP rate that results in a decrease in the full price of the shipment of 10% below the price without CGP would trigger a {{[redacted]}} increase in carloads demanded. For the shipper with average elasticity (equal to approximately {{[redacted]}}), such a decrease would imply more than doubling the carloads demanded.[392]

252. These results are unreasonable because under Dr. Israel's model, which does not allow shippers to divert existing carloads among carrier routes or modes of transportation, any increase in the amount of rail service used implies an increase in the quantity supplied and demanded of the underlying product, which Dr. Israel does not separately model. As I explain with the following hypothetical situation, this implication renders his implied shipper elasticities all the more implausible.

253. Consider a shipper of construction products, who is sole-served at its facility in the West by UP and needs to ship to another customer facility in the East, sole-served by CSXT. If interchanged at one of the CGP gateways, this shipment is CGP-eligible. Suppose that the rate of the full shipment with CGP is 3% lower than that without CGP, and the shipper is at the average of the elasticity distribution calibrated by Dr. Israel in Appendix Figure 13 of {{[redacted]}}. His model then prescribes that *as a result of CGP*—which at most entails a rate reduction in the UP leg of the interline shipment given Dr. Israel's assumption that CSXT would not alter its rate for the other leg—this shipper will increase its quantity of Construction products shipped by rail by {{[redacted]}}.[393] For this to happen, those carloads must be filled with actual Construction

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[392] Given Dr. Israel's functional form for demand ($q_i = \exp(a_i - b_i d_i p_i)$), the elasticity of demand with respect to the per car-mile price is given by $\epsilon_i = b_i d_i p_i$. If the overall price of the shipment goes down by 10% (i.e., $p_i^1 = 0.90 * p_i^0$), the percentage change in quantity demanded can be expressed as:

$$\frac{q_i^1}{q_i^0} - 1 = \frac{\exp\left(a_i - b_i d_i 0.9 p_i^0\right)}{ex\,p\left(a_i - b_i d_i p_i^0\right)} - 1 = \exp\left(0.1 * b_i d_i p_i^0\right) - 1 = \exp(0.1 * \epsilon_i) - 1$$

At a median elasticity of {{[redacted]}}, this means a 10% reduction in the per-car mile price of the shipment leads to a {{[redacted]}} in quantity demanded. At an average elasticity of {{[redacted]}}, the same price reduction is associated with a {{[redacted]}} increase in quantity demanded.

[393] For reference, the exact calculation is equal to exp({{[redacted]}}*0.03)-1. Alternatively, using the median in Appendix Figure 13 would imply an increase in quantity of Construction products shipped by rail of {{[redacted]}} (exp({{[redacted]}}*0.03)-1).

products supplied by the shipper. Moreover, the quantity of these Construction products demanded by the buyer must also increase by {{[redacted]}}. And all of this is just as a result of a reduction in the price of the rail service that goes from O to D (the transportation cost), an expense that is likely only a fraction of what the buyer pays for those Construction products.[394] Dr. Israel does not discuss the sources of this increase in volumes shipped (i.e., how much of it is attributable to new supply and demand for Construction products that did not previously exist), a relevant question given that the shipper's choice of route (and mode of transportation) is fixed in his model.[395] Nor does he offer reasons or benchmarks to lend any credibility to his model's predictions. In all, Dr. Israel's welfare estimates are not credible due to the inherent flaws in the model underlying them.[396]

254. I rerun Dr. Israel's simulation model with a modified calibration procedure that assumes values of shippers' elasticities that are closer to those reported in the literature than Dr. Israel's.

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[394] Suppose for example that transportation costs for construction products represent 50% of the delivered price. A 3% reduction in rail rates then implies a 1.5% reduction in the total price paid by the buyer (3%*50%). For this shipper in the example, then Dr. Israel's model implies that the buyer(s) at the closed destination served by CSXT will increase their demand by {{[redacted]}} as a result of a 1.5% decrease in delivered prices.

[395] To illustrate this point, consider the customer {{[redacted]}}. For the UP-NS route, Dr. Israel's model predicts that customer {{[redacted]}}. See my workpapers.

[396] Dr. Israel may claim in defense that the elasticities cited in the literature are market elasticities and therefore not directly comparable to those of shippers facing rate changes by a given carrier route. However, it is important to note the textbook rationale for why individual elasticities are typically higher than aggregate elasticities rests on the premise that a consumer typically has more (rail) alternatives available to them than the market as a whole. As discussed above, this premise does not hold under Dr. Israel's framework. By fixing the route chosen by each shipper, his model precludes precisely the substitution behavior that could contribute to the high individual demand elasticities it predicts. See, for example, Carlton and Perloff (2005), p. 66 ("For example, as more substitute products are available, consumers find it easier to substitute for a product if its price rises, which makes its demand curve more elastic.").

Dr. Israel uses CCWS-derived margins to estimate demand parameters governing shippers' elasticities.[397] Instead, I first estimate demand parameters using elasticities benchmarked from the literature and then use those parameters to calibrate marginal costs without relying on CCWS-derived margins. In particular, the demand parameters are set so that the implied demand elasticities equal 2.5 for all shippers, which is in the upper range of elasticities found in the previously cited literature.[398]

255. My alternative calibration procedure produces welfare outcomes that diverge materially from those generated by Dr. Israel's procedure. In particular, under my approach, the net benefit from CGP {{[redacted]}}.[399] Moreover, my alternative calibration has the same defect that Dr. Israel has in his model calibration – namely estimations showing negative marginal costs. Under my alternative, more reasonable demand assumptions, Dr. Israel's model produces estimates that {{[redacted]}} of shippers have route segments with negative marginal costs, further undermining the credibility of his results.[400] In all, although I do not endorse the findings of this simulation exercise given the numerous other flaws I have discussed that are inherent in Dr. Israel's economic model, the results demonstrate that Dr. Israel's baseline findings are unreliable.

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[397] Israel VS, Appendix C, ¶ 37.

[398] See ¶ 251 and n. 391 above. Specifically, I calibrate the demand parameters b_i so that the implied elasticities $\epsilon_i = b_i d_i p_i = 2.5$ for all shippers.

[399] Israel Supplemental VS, ¶ 33. Moreover, as I discuss above in ¶ 181 and notes 290 and 291, Dr. Israel's simulations are conducted separately for the BNSF and CSXT matrices. As a result, UP/NS shipments belong to the input sets of both matrices, resulting in two different estimates of change in welfare for these shippers. Dr. Israel's "deduplication" approach attempts to account for this by choosing the larger of the two estimates of harm at the commodity-distance cell level. Israel VS, Appendix C, ¶ 43. For my alternative rerun of Dr. Israel's model, I note that the welfare effects associated with duplicated shipments in the input sets {{[redacted]}}, under Dr. Israel's own de-duplication procedure. See my workpapers. This highlights another aspect of Dr. Israel's welfare calculation (i.e., de-duplication of input set shippers at the commodity-distance cell level) that is critical to his conclusion, yet appears sensitive to reasonable methodology changes. Israel VS, Appendix C, ¶ 43.

[400] See my workpapers.

ATTACHMENT 1

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EDUCATION

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M.S., MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, Massachusetts: Operations Research, 1974.

A.B., HARVARD UNIVERSITY (Summa cum laude): Applied Math and Economics, 1972.

EMPLOYMENT

COMPASS LEXECON (formerly Lexecon), (2008 – present) Senior Managing Director; LEXECON INC., (1977 – 2006), President 1997 – 2001, Senior Managing Director 2003 - 2006

UNIVERSITY OF CHICAGO, Booth School of Business, David McDaniel Keller Professor of Economics (2011 – July 2022; Emeritus July 2022- present); Katherine Dusak Miller Professor of Economics (2008 – 2011); Professor of Economics (1984 – 2008); Law School, Professor of Economics (1980 – 1984); Department of Economics, Assistant Professor (1976 – 1979); Associate Professor (1979)

U.S. DEPARTMENT OF JUSTICE, Washington, District of Columbia (2006 – 2008) Deputy Assistant Attorney General for Economic Analysis, Antitrust Division

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, Massachusetts, Department of Economics (1975 – 1976) Instructor in Economics

OTHER PROFESSIONAL EXPERIENCE

HARVARD UNIVERSITY, Public Policy Summer Course in Economics (1977), Professor

BELL TELEPHONE LABORATORIES (Summers 1976, 1977)

JOINT CENTER FOR URBAN STUDIES OF M.I.T. AND HARVARD UNIVERSITY, Cambridge, Massachusetts (1974 - 1975)

CHARLES RIVER ASSOCIATES, Cambridge, Massachusetts (Summers 1971, 1972) Research Assistant

FIELDS OF SPECIALIZATION

Theoretical and Applied Microeconomics
Industrial Organization

ACADEMIC HONORS AND FELLOWSHIPS

Keynote Address, Substance Over Slogans: Strengthening the Foundations of Antitrust, Paris, 2025
Keynote Address, 32nd Annual Workshop of the Competition Law & Policy Institute of New Zealand, 2021
2020 Award for Best Article in *Economic Inquiry* for the article "Antitrust Treatment of Nonprofits: Should Hospitals Receive Special Care? (with C. Capps and G. David)".
Best Academic Economics Article in Antitrust - 2019 Antitrust Writing Awards, given by Concurrences and George Washington University Law School for the article "Vertical Most-Favored-Nation Restraints and Credit Card No-Surcharge Rules" (with R. Winter) in *The Journal of Law and Economics.*
Harris Professor Lecture, Clemson University, 2019
Taft Lecture, New York Bar Association, 2018
Keynote Address, CRESSE Conference, June 2018
Best Academic Economics Article in Antitrust - 2016 Antitrust Writing Awards, given by Concurrences and George Washington University Law School for the article "Rethinking Antitrust in the Presence of Transaction Costs: Coasian Implications" (with B. Keating) in *Review of Industrial Organization*.
Keynote Address, Federal Trade Commission, Auto Distribution: Current Issues and Future Trends, January 19, 2016
Award for Antitrust Litigation Consultants of the Year 2015, awarded by Corporate Vision
Keynote Address, International Industrial Organization Conference, 2014
The 2014 Distinguished Fellow, Industrial Organization Society
Economist of the Year, Global Competition Review, 2014
Keynote Address, Sixth Annual Federal Trade Commission Microeconomics Conference, 2013
Heath Memorial Lecture, University of Florida, 2013
Award (w. Mark Israel) for Best Antitrust Analysis in Litigated Cases, Global Competition Review, 2013
Keynote Address, 21st Annual Workshop of the Competition Law & Policy Institute of New Zealand, 2010
Keynote Address, Japanese Symposium on Competition, sponsored by Japan Fair Trade Commission, 2009

Recipient of Inaugural Robert F. Lanzilotti Prize, awarded by the Industrial Organization Society for Best Paper in Antitrust Economics, 2008
Keynote Address to Israel Antitrust Conference, 2008
Lewis Bernstein Memorial Antitrust Lecture, Washington, D.C., 2006
Distinguished Visitor, University of Melbourne, April 2005
Milton Handler Lecture, New York, 2004
Keynote Address to the International Competition Network, Mexico, 2004
Alexander Brody Distinguished Lecture, Yeshiva University, 2000
Ph.D. Thesis chosen to appear in the Garland Series of Outstanding Dissertations in Economics
Recipient of the 1977 P.W.S. Andrews Memorial Prize Essay, best essay in the field of Industrial Organization by a scholar under the age of thirty
National Science Foundation Grant, 1977 - 1985
Recipient of Post-doctoral Grant from the Lincoln Foundation, 1975
National Science Foundation Fellowship, 1972 - 1975
Phi Beta Kappa, 1971
John Harvard Award, 1970
Detur Book Prize, 1969
Edwards Whitaker Award, 1969
M.I.T., National Scholar Award, 1968

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Appointed to ABA Leadership in Antitrust Section: 2018-2019
Participant in the FTC Competition and Consumer Protection Hearings: "The State of U.S. Antitrust Law", September 21, 2018 (Session 1) and “Merger Retrospective Hearing”, April 12, 2019
Co-Organizer and Instructor, Antitrust Law and Economics Institute, Federal Judicial Center, 2017, 2018, 2023
Member, Task Force on International Divergence in Dominance Standards, American Bar Association 2017 - 2018
Board Member, The Taub Center for Social Policy Studies, 2017 - present
Member, U.S. Chamber of Commerce International Competition Policy Expert Group for report on International Trade and Competition, 2017
Appointed Member of the ABA Presidential Transition Task Force, Antitrust Law, 2016
Appointed Member of the ABA Presidential Transition Task Force, Antitrust Law, 2012
Advisory panel to the Department of Justice and the FTC on the merger guidelines, 2010
Co-editor, The Journal of Law and Economics, 1980 - present
Visiting Committee, MIT, Department of Economics, 1995 - 2011
Member, Advisory Board, Economics Research Network, 1996 - present
Member, Advisory Board of Antitrust and Regulation Abstracts, Social Science Research Network, 1998 - present
Advisory Board, Massachusetts Institute of Technology, Department of Economics, 1999
Editorial Board, Competition Policy International (CPI), 2010 - present, Co-Editor, Competition Policy International (CPI), 2004 – 2009
Member, Economic Task Force – Antitrust Division, American Bar Association, 2010
Advisory Board, Journal of Competition Law and Economics, 2004 - present
Deputy Assistant Attorney General for Economic Analysis, Antitrust Division, U.S. Department of Justice, 2006 – 2008
Presidential Appointment to the Antitrust Modernization Commission, 2004 – 2007

Invited Panelist at Public Hearing on the Retail Banking Sector Inquiry: Payment Cards, before the European Commission in Brussels, Belgium, July 17, 2006.
Consultant on Merger Guidelines to the FTC, 2003
Professor, George Mason Institute for Judges, October 2001
Chairman, FTC Round Table on Empirical Industrial Organization (September 11, 2001)
Participant in the Round Table on the Economics of Mergers Between Large ILECS before the Federal Communications Commission, February 5, 1999
Member, Steering Committee, Social Science Research Council, Program in Applied Economics, 1997 - 1999
Participant in roundtable discussions on "The Role of Classical Market Power in Joint Venture Analysis," before the Federal Trade Commission, November 19, 1997 and March 17, 1998.
Participant in meetings with Committee of the Federal Reserve on Payment Systems, June 5, 1997
Associate Editor, Regional Science and Urban Economics, 1987 - 1997
Resident Scholar, Board of Governors of the Federal Reserve System, Summer, 1995
Accreditation Committee, Graduate School of Business, Stanford University, 1995
Associate Editor, The International Journal of Industrial Organization, 1991 - 1995
Editorial Board, Intellectual Property Fraud Reporter, 1990 - 1995
Consultant on Merger Guidelines to the U.S. Department of Justice, 1991 - 1992
Member, Advisory Committee to the Bureau of the Census, 1987 – 1990
National Bureau of Economic Research, Research Associate
American Bar Association, Associate Member
American Economic Association, Member

BOOKS

Market Behavior Under Uncertainty, Ph.D. Thesis, Massachusetts Institute of Technology (September 1975); Garland Publishing (1984).

Modern Industrial Organization, Scott, Foresman & Co., co-authored with Jeffrey Perloff, first edition (1990), (Chapter 17 of first edition reprinted as “The Economics of Information” for the University of Connecticut, Food Marketing Policy Center (1989)), second edition (1994), translated into Chinese, French, Hungarian and Italian; Addison Wesley Longman, third edition (2000), fourth edition (2005), translated into Chinese (2009), fourth edition, published as Global Edition (2015).

RESEARCH PAPERS

"The Equilibrium Analysis of Alternative Housing Allowance Payments," (with Joseph Ferreira) Chapter 6 of Analysis of a Direct Housing Allowance Program, The Joint Center for Urban Studies of M.I.T. and Harvard University, (July 1975).

"Theories of Vertical Integration," presented at Fourth Annual Telecommunications Conference. Appears in a volume of Proceedings of the Fourth Annual Telecommunications Conference, Office of Telecommunications Policy, (April 1976).

"Uncertainty, Production Lags, and Pricing," American Economic Review, (February 1977).

"Selecting Subsidy Strategies for Housing Allowance Programs," (with Joseph Ferreira) Journal of Urban Economics, (July 1977).

"Peak Load Pricing With Stochastic Demand," American Economic Review, (December 1977). (Reprinted in Economic Regulation edited by P.L. Joskow, Edward Elgar Publishing Limited, 1998 and Reprinted in The Economics of Public Utilities edited by Ray Rees, Professor of Economics at the University of Munich, Germany, 2005.)

"The Distribution of Permanent Income," (With R. Hall) Income Distribution and Economic Inequality, edited by Zvi Griliches, et al. (Halsted Press, 1978).

"Vertical Integration--An Overview," in Congressional Record Hearings on the Communications Act of 1978. Bill H.R. 13105, (August 3, 1978).

"Market Behavior with Demand Uncertainty and Price Inflexibility," American Economic Review, (September 1978).

"Vertical Integration in Competitive Markets Under Uncertainty," Journal of Industrial Economics, (March 1979). Awarded the P.W.S. Memorial Prize for the best essay in the field of Industrial Organization by a scholar under the age of thirty.

"Valuing Market Benefits and Costs in Related Output and Input Markets," American Economic Review, (September 1979).

"Contracts, Price Rigidity and Market Equilibrium," Journal of Political Economy, (October 1979).

"Why New Firms Locate Where They Do: An Econometric Model," in Studies in Regional Economics, edited by W. Wheaton, (Urban Institute, 1980).

"Benefits and Costs of Airline Mergers: A Case Study," (with W. Landes and R. Posner) Bell Journal of Economics, (Spring 1980). (Reprinted in "Air Transport" in Classics In Transport Analysis series, edited by Kenneth Button and Peter Nijkamp, 2001.)

"The Limitations of Pigouvian Taxes as a Long Run Remedy for Externalities," (with G. Loury) Quarterly Journal of Economics, (November 1980).

"The Law and Economics of Rights in Valuable Information: A Comment," Journal of Legal Studies, (December 1980).

"Price Discrimination: Vertical Integration and Divestiture in Natural Resources Markets," (with J. Perloff) Resources and Energy, (March 1981).

"The Spatial Effects of a Tax on Housing and Land," Regional Science and Urban Economics, (November 1981).

"Comments on Weicher," The Journal of Law and Economics, (December 1981).

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"Planning and Market Structure," in The Economics of Information and Uncertainty, edited by J.J. McCall, University of Chicago Press, (1982).

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"Futures Trading, Market Interrelationships, and Industry Structure," American Journal of Agricultural Economics, (May 1983).

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"The Location and Employment Choices of New Firms: An Econometric Model with Discrete and Continuous Endogenous Variables," The Review of Economics and Statistics, (August 1983).

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“The Economics of Gray-Market Imports,” (with C. DeMuth), written for the Coalition to Preserve the Integrity of American Trademarks (COPIAT), (May 1985).

"The Limitation of Pigouvian Taxes As A Long Run Remedy for Externalities: Extension of Results," (with G. Loury) Quarterly Journal of Economics, (August 1986).

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"Merger Policy and Market Definition Under the EC Merger Regulation," (with W. D. Bishop). Conference on Antitrust in a Global Economy, Fordham Corporate Law Institute, (1994).

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Attachment 2 - List of Materials Relied Upon

Verified Statements

1. Joint Verified Statement of Eric Gehringer and John F. Orr, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, September 4, 2026.
2. Supplemental Verified Statement of Mark A. Israel, Union Pacific Corporation, et al. – Control – Norfolk Southern Corporation, et al., STB Docket No. FD 36873, July 17, 2026.
3. Verified Statement of Christopher A. Vellturo, Ph.D., Canadian National Railway Company and Grand Trunk Corporation – Control – EJ&E West Company, STB Docket No. FD 35087, October 29, 2007.
4. Verified Statement of David Reishus, PhD, Canadian Pacific Railway Limited, et al. – Control – Kansas City Southern, et al., STB Docket No. FD 36500, February 28, 2022.
5. Verified Statement of David T. Hunt, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, September 4, 2026.
6. Verified Statement of Professor Dennis W. Carlton, Ph.D., BNSF Railway Company – Trackage Rights – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873 (Sub-No 33), November 18, 2026.
7. Verified Statement Of Elizabeth M. Bailey, Ph.D., Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, December 17, 2025.
8. Verified Statement Of Elizabeth M. Bailey, Ph.D., Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, September 4, 2026.
9. Verified Statement of Grant Janke, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, September 4, 2026.
10. Verified Statement of Professor John Mayo, Ph.D., Canadian Pacific Railway Limited, et al. – Control – Kansas City Southern, et al., STB Docket No. FD 36500, February 28, 2022.
11. Verified Statement of Katherine N. Novak, Union Pacific Corporation and Union Pacific Railroad Company – Control – Norfolk Southern Corporation and Norfolk Southern Railway Company, STB Docket No. FD 36873, April 29, 2026.
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BEFORE THE
SURFACE TRANSPORTATION BOARD

FD 36873

UNION PACIFIC CORPORATION, ET AL.
– CONTROL –
NORFOLK SOUTHERN CORPORATION, ET AL.

Verified Statement of Nicholas Hill, PhD

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1. Preliminaries

1.1. Qualifications

(1) I am a Partner at Bates White Economic Consulting specializing in antitrust analysis. I have extensive experience applying economic principles to antitrust cases. Prior to working at Bates White, I served for three years as an Assistant Section Chief in the Economic Analysis Group of the US Department of Justice's Antitrust Division. In that role, I supervised teams of economists on a number of important antitrust enforcement actions, including Aetna-Humana, Comcast-Time Warner Cable, Halliburton-Baker Hughes, and the United-Delta Newark slots litigation. The Aetna-Humana team received an Attorney General's Award for Distinguished Service, while the other three teams received Antitrust Division Awards of Distinction. Prior to serving as an assistant chief in the Antitrust Division, I was a staff economist at the Federal Trade Commission for a year and a half, and a staff economist at the Antitrust Division for seven years.

(2) During my government service I worked on antitrust investigations and litigations related to a wide range of industries, including airlines, banking, casinos, health insurance, pharmaceuticals, pulp and paper products, transportation, and telecommunications. Since moving to the private sector I have been retained by clients, both public and private, in a range of industries, including banking, chemicals, dairy, healthcare, oil-field services, pulp and paper products, software, and transportation equipment. With respect to the transportation industry, I have analyzed competition in the airline and railroad industries, including a prior submission to the Surface Transportation Board (the "Board").

(3) I have testified eight times in Federal Court. I testified in 2018 for the Federal Trade Commission in its successful challenge of the chemical industry merger between Tronox and Cristal. In 2019, I testified on behalf of Evonik and PeroxyChem in successful defense of their merger. I testified in 2020 on behalf of the Federal Trade Commission in its successful challenge of the proposed joint venture between Peabody Energy and Arch Resources. I testified on two matters in 2022. First, I testified on behalf of U.S. Sugar and Imperial Sugar in successful defense of their merger. Second, I testified on behalf of the Department of Justice in its successful challenge of the proposed merger of the book publishers Penguin Random House and Simon & Schuster. In 2023, I testified on behalf of JetBlue and Spirit in defense of their merger. In 2024, I testified on behalf of the Federal Trade Commission in its successful challenge to the proposed merger of Kroger and Albertsons. Finally, I testified in 2026 in the plaintiff States' successful monopolization case against Live Nation Entertainment.

(4) I have a PhD in Economics from Johns Hopkins University and a master's degree in Quantitative Development Economics from the University of Warwick in the United Kingdom. My curriculum vitae, which discloses my publications, is attached as Appendix A.

(5) A list of the materials upon which I relied when forming my opinion is provided in Appendix B. My work on this matter is ongoing, and my opinions are formed using the information available to me as of the date of this statement. I reserve the right to amend or supplement this verified statement if additional information is made available. If other verified statements come to my attention, I may choose to update my opinions or respond to such verified statements as necessary.

1.2. Assignment

(6) I have been asked by counsel for BNSF Railway Company ("BNSF") to analyze and respond to arguments related to the likelihood of competitive harm from foreclosure resulting from the proposed merger between Union Pacific Corporation and Union Pacific Railroad Company ("UP") and Norfolk Southern Corporation and Norfolk Southern Railway Company ("NS") ("UP/NS merger"). My assignment in this matter is fourfold. The first task is to examine whether the merger between Canadian Pacific Railway Limited ("CP") and Kansas City Southern ("KCS") ("CP/KCS merger") resulted in foreclosure of rival carriers, thereby harming competition. The second task is to evaluate whether the merged UP/NS is likely to have the ability and incentive to foreclose rival carriers. The third task is to analyze whether the one-lump theory should be applied to the proposed UP/NS merger. The fourth task is to assess whether BNSF's proposed conditions are likely to mitigate the risk of vertical foreclosure should the Board permit the merger to proceed.

2. Summary of conclusions

(7) In this statement I analyze the likely competitive effects of the proposed UP/NS merger. I reach a number of conclusions. First, I find that the evidence is consistent with the most recent end-to-end merger of two Class I railroads in North America, the 2023 CP/KCS merger, having led to foreclosure. In particular, I find that shippers have seen material shifts in the options available to them since the CP/KCS merger on key routes between Mexico and the United States. These findings are consistent with the CP/KCS merger having foreclosed rival carriers, reduced competition, and harmed shippers.

(8) Second, I find that a substantial volume of commerce is at risk of foreclosure as a result of the proposed UP/NS merger. Should foreclosure occur, it would likely harm competition, shippers, and third-party carriers on the at-risk routes.

(9) Third, I find that the merged firm will likely have the ability and the incentive to foreclose rival carriers and thereby harm competition. I reach this conclusion by analyzing four vertical foreclosure risk factors described in the 2023 Joint DOJ-FTC Merger Guidelines. I find that each of these risk factors applies to the facts of this merger, which is consistent with the merger being likely to lead to vertical foreclosure.

(10) Fourth, I find that the one-lump theory, which argues that certain vertical mergers cannot harm customers because customers already pay monopoly prices, does not apply to this merger. Instead, I find that the qualitative and quantitative evidence is inconsistent with several of the one-lump theory's central assumptions. Further, I find that Dr. Israel's assertions that the merger will reduce double marginalization and that carriers compete closely with trucks are inconsistent with the one-lump theory's assumptions. For these reasons, I conclude that the one-lump theory is not relevant to the proposed merger.

(11) Finally, I conclude that BNSF's proposed conditions would likely mitigate the risk of foreclosure due to the merger.[1] These conditions would therefore also likely mitigate the loss of pre-merger competition and harm to shippers due to the merger.

[1] Based on the evidence I conclude that the proposed merger is likely to result in foreclosure, thereby harming competition, shippers, and rival carriers. I therefore conclude that the proposed merger should be blocked. Notwithstanding this view, BNSF has proposed conditions on the merger intended to partially mitigate the risk of harm should the Board permit the merger to proceed.

3. Industry and merger background

(12) The Union Pacific Corporation, which owns the Union Pacific Railroad, has proposed a merger with the Norfolk Southern Corporation, and through it, the Norfolk Southern Railway Company. UP's freight network serves nearly 33,000 miles across 23 states in the Western United States.[2,3] UP's network links every major western port to major gateways in Chicago, St. Louis, Memphis, and New Orleans ("mid-continent gateways"), where transcontinental freight is switched from western to eastern railroads.[4,5] In total, UP operates approximately 7,000 locomotives and 54,000 freight cars.[6]

(13) NS operates in the Eastern United States, serving approximately 19,000 miles across 22 states and the District of Columbia.[7,8] NS's main routes connect Chicago, the Southeast, and the Northeast, and switch transcontinental shipments to western railroads at the mid-continent gateways.[9] NS operates approximately 3,250 locomotives and 36,500 freight cars.[10]

(14) UP and NS are two of six Class I railroads in the United States. The other Class I railroads are CSX Transportation ("CSXT"), Canadian National Railway ("CN"), Canadian Pacific Kansas City Limited ("CPKC"), and BNSF. Figure 1 depicts the primary operating regions, miles, number of carloads, and operating revenue for each of the six Class I railroads.

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2 The Board classifies carriers into three classes, Class I, Class II, and Class III, based on annual operating revenue. To be designated Class I in 2025, carriers must have annual operating revenue exceeding $1,094,774,354. Union Pacific, *Form 10-K*, 6 February 2026, 22; "Economic Data," Surface Transportation Board, accessed 1 October 2026, https://www.stb.gov/reports-data/economic-data/.

3 Approximately 26,000 of these miles are directly owned by UP, while the remaining miles of track are accessible via trackage rights agreements or arrangements with other carriers. Union Pacific, *Form 10-K*, 6 February 2026, 22.

4 Surface Transportation Board, Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket 36873, 2026-10751 (91 FR 32174), 29 May 2026.

5 UP is also the only railroad in the United States that serves all six major Mexico gateways. Union Pacific, *Form 10-K*, 6 February 2026, 5.

6 Union Pacific, *Form 10-K*, 6 February 2026, 23.

7 NS owns over 14,000 of these miles. Norfolk Southern, *Form 10-K*, 9 February 2026, K4–K5.

8 NS serves 24 seaports, nine lake ports, and 10 river ports, including every major East Coast ocean port from New York City to Jacksonville. "Ports & International," Norfolk Southern, accessed 30 September 2026, https://www.norfolksouthern.com/en/ship-by-rail/our-rail-network/ports-international.

9 Surface Transportation Board, Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket 36873, 2026-10751 (91 FR 32174), 29 May 2026.

10 Norfolk Southern, *Form 10-K*, 9 February 2026, K7–K8.

Figure 1. North American Class I railroads summary information, 2025

Carrier	Region	Miles operated	Carloads (thousands)	Operating revenue ($)
UP	Western United States	32,889	8,447	24,443 M
BNSF	Western United States	32,742	9,622	23,718 M
CSXT	Eastern United States	19,667	6,220	12,872 M
NS	Eastern United States	19,119	7,060	12,180 M
CN (GTC)	Canada / Midwest United States	5,551	2,166	3,673 M
CPKC (SOO / KCS)	Canada / Midwest United States / Mexico	8,394	1,935	3,580 M

Source: Schedule 210 and 755 for BNSF, UP, CSXT, GTC, NS, SOO/KCS at "Annual Report Financial Data 2025," Surface Transportation Board, accessed on 4 November 2026, https://www.stb.gov/reports-data/economic-data/annual-report-financial-data/; Form FCS for BNSF, UP, CSXT, GTC, NS, SOO/KCS at "Annual Freight Commodity Statistics," Surface Transportation Board, 2025, accessed 1 October 2026, https://www.stb.gov/reports-data/economic-data/freight-commodity-statistics/; *See* my backup materials.
Notes: GTC (the Grand Trunk Corporation) serves as the subsidiary holding company for all of CN's United States rail operations and properties; SOO/KCS represent the United States operations of CPKC.

(15) Shippers often use a combination of carriers to transport goods from an origin to a destination. Traffic involving two or more carriers is known as "interline" traffic. Interline traffic accounted for {{[redacted]}} of all rail traffic revenue in 2023, demonstrating its importance to shippers and carriers. UP and NS accounted for {{[redacted]}} of total interline traffic revenue in 2023.[11]

[11] I use the 2023 Bailey Combined Waybill data. These data combine traffic tape data from the six Class I railroads and the Board's Confidential Carload Waybill Sample. Shipments Dr. Bailey identified as unreliable are excluded in all analyses unless otherwise noted. This includes shipments Dr. Bailey flagged as having an unreliable station code (i.e., SPLC), unreliable matching, unreliable route information, unreliable source, unreliable STCC, an FSAC unable to be found in the combined stationmaster, intra-Canada and intra-Mexico shipments, and those with Class I railroad records in the Board's Confidential Carload Waybill Sample but missing in the traffic tape data. Verified Statement of Elizabeth M. Bailey, Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket No. 36873 (Surface Transportation Board 4 September 2026) [hereinafter "Bailey Statement"], Appendix C, ¶¶ 81–82.

(16) Figure 2 depicts the active rail lines of BNSF and CSXT.

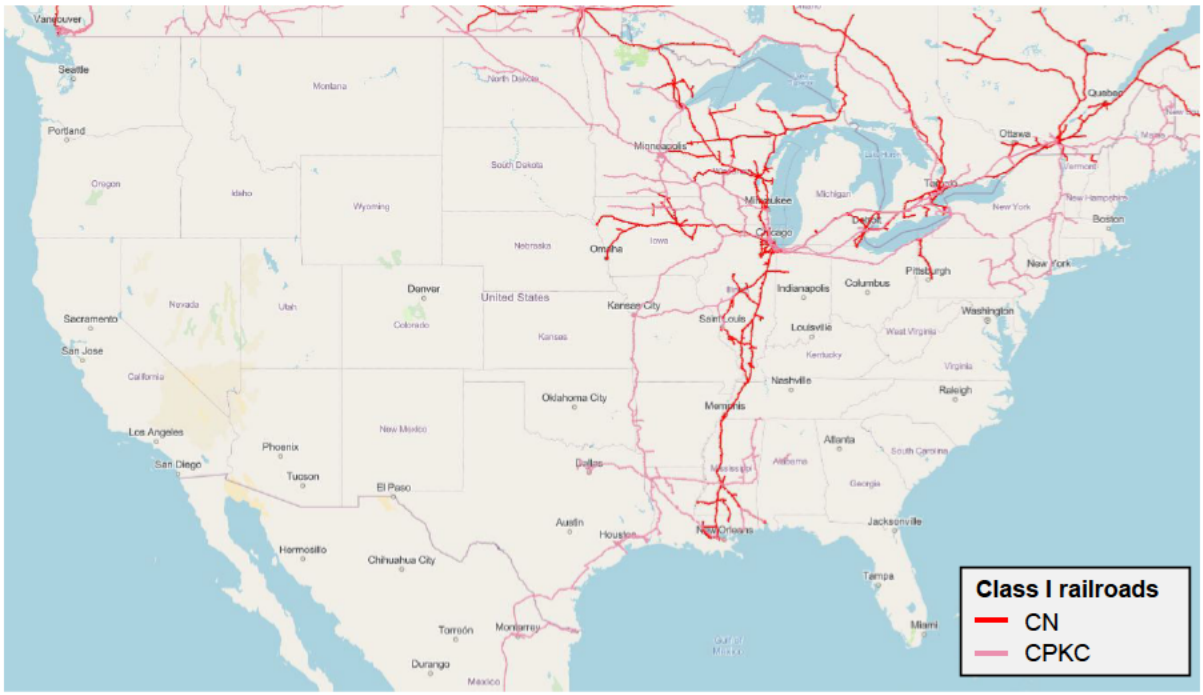
Figure 2. BNSF and CSXT rail networks



Source: "National Rail Network Map," Surface Transportation Board, accessed 1 October 2026, https://stb.maps.arcgis.com/apps/mapviewer/index.html?webmap=96ec03e4fc8546bd8a864e39a2c3fc41.

(17) Figure 3 depicts the active rail lines of CN and CPKC.

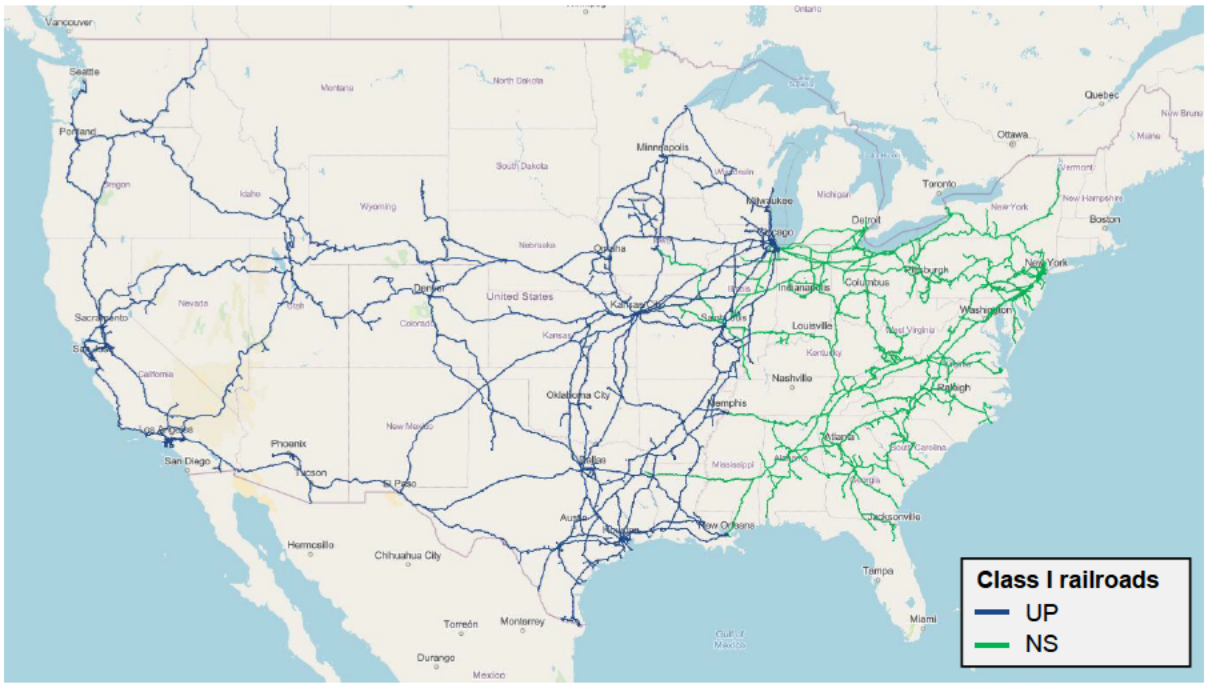
Figure 3. CN and CPKC rail networks



Source: "National Rail Network Map," Surface Transportation Board, accessed 1 October 2026, https://stb.maps.arcgis.com/apps/mapviewer/index.html?webmap=96ec03e4fc8546bd8a864e39a2c3fc41.
Notes: CN's rail network extends further into Canada. CPKC's rail network extends further into Canada and Mexico.

(18) Figure 4 depicts the active rail lines of UP and NS.

Figure 4. UP and NS rail networks



Source: "National Rail Network Map," Surface Transportation Board, accessed 1 October 2026, https://stb.maps.arcgis.com/apps/mapviewer/index.html?webmap=96ec03e4fc8546bd8a864e39a2c3fc41.

4. Economic framework of foreclosure

(19) Foreclosure is said to occur when a firm (the "bottleneck" firm) controls a product essential to firms in an adjacent segment and denies or limits those firms' access to it.[12,13] Foreclosure, by denying or limiting competitors' access to an essential input, can raise rivals' costs, decrease the quality of rivals' products or services, and exclude rivals from the market. These adverse effects can reduce or eliminate downstream competition.[14]

(20) Foreclosure can do more than harm rival firms: if foreclosure has a material exclusionary effect, then it can reduce consumer welfare. This reduction in competition can lead to higher prices, reduced quality, and reduced consumer choice. For example, consider a merger between Firm A, which produces raw milk (which comes from cows and is the key input into fluid milk), and Firm B, which produces fluid milk (which is sold to grocery stores, convenience stores, etc.). If the merged firm cuts off or restricts the supply of raw milk to rival producers of fluid milk, such behavior would be referred to as foreclosure. If the foreclosure materially reduced competition by degrading the ability of rival firms to supply fluid milk—e.g., raising their costs, driving them below efficient scale, or disincentivizing them to invest (e.g., in improved production technology)—then it would also harm consumers.

(21) Foreclosure can be complete (i.e., the bottleneck firm refuses to supply downstream rivals) or partial (i.e., the bottleneck firm continues to supply to its competitors but charges a higher price or reduces the amount or quality of the supply it makes available).[15] Either type of foreclosure will raise rivals' costs if they cannot substitute for equally cost-effective inputs. Should adequate replacement inputs

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12 *See* Patrick Rey and Jean Tirole, "A Primer on Foreclosure," in *Handbook of Industrial Organization*, 3, eds. Mark Armstrong and Robert H. Porter (Amsterdam: Elsevier, 2007) [hereinafter "Rey and Tirole (2007)"], 2148 ("Foreclosure refers to a dominant firm's denial of proper access to an essential good it produces, with the intent of extending monopoly power from that segment of the market (the bottleneck segment) to an adjacent segment (the potentially competitive segment).").

13 Foreclosure can arise when the essential product is used as input by downstream firms, usually referred to as "input foreclosure," and when upstream firms are limited or denied access to its distribution or retail channel, referred to as "customer foreclosure." *See* Paul Belleflamme and Martin Peitz, *Industrial Organization*, 2nd ed. (Cambridge, UK: Cambridge University Press, 2015), 457, 462; D. Bruce Hoffman, "Vertical Merger Enforcement at the FTC," (Remarks at Credit Suisse 2018 Washington Perspectives Conference, Washington D.C., 10 January 2018), 5.

14 *See* Rey and Tirole (2007), 2148–2149, 2153; *see also* Steven C. Salop and Daniel P. Culley, "Potential Competitive Effects of Vertical Mergers: A How-To Guide for Practitioners" (Georgetown Law Faculty Publications and Other Works 1392, Georgetown University Law Center, Washington, D.C., 2014); Steven Salop and David Scheffman, "Raising Rivals' Costs," *American Economic Review* 73, no. 2 (May 1983): 267–271; *and* Thomas Krattenmaker and Steven Salop, "Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price," *Yale Law Journal* 96, no. 2 (December 1986): 209–293.

15 *See* Rey and Tirole (2007), 2148 ("Foreclosure varies in extent. It can be complete, as in the case of a refusal to deal […] or partial, as when the bottleneck owner favors some firms or products in the adjacent market to the detriment of other competitors.").

not be available, foreclosure can force rivals to raise their downstream prices or reduce their output.[16] Vertical mergers that result in foreclosure can reduce competition and harm consumers.[17,18]

(22) To evaluate whether a vertical merger is likely to result in foreclosure, economists typically analyze whether the merged firm would have the ability and incentive to foreclose rivals. The merged firm's ability to foreclose downstream rivals often depends on the extent to which those rivals can find credible substitutes for the input previously provided by the merged firm.[19]

(23) The merged firm's incentive to foreclose depends on whether the foreclosure of downstream rivals would enhance the merged firm's profits.[20] Evaluating whether the merged firm will have the incentive to foreclose often focuses on whether incremental profits earned from additional downstream sales offset any lost profits from forgone upstream sales.[21] A firm has an incentive to partially or totally foreclose downstream rivals if doing so would materially increase its profit.

(24) In the case of total foreclosure, the incentive to foreclose often depends on the relative sizes of two quantities: the loss in profit that results from forgone upstream sales (i.e., to the foreclosed rival) and the gain in profit that results from capturing additional downstream sales (i.e., customers who switch away from a foreclosed downstream rival and select the downstream arm of the foreclosing firm). The key determinants of foreclosure incentives in a total foreclosure model are therefore often the relative profitability of upstream and downstream sales (with foreclosure becoming more likely as the relative profitability of downstream sales increases) and the percentage of customers lost by

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16 Steven C. Salop and Daniel P. Culley, "Potential Competitive Effects of Vertical Mergers: A How-To Guide for Practitioners" (Georgetown Law Faculty Publications and Other Works 1392, Georgetown University Law Center, Washington, D.C., 2014), 15 ("If this foreclosure conduct materially raises the costs or reduces the quality of the targeted rivals, they would have the incentive to raise their quality-adjusted prices and reduce their output.").

17 *See* Jeffrey Church, "Vertical Mergers," in *Issues in Competition Law and Policy,* ed. Wayne Dale Collins (Chicago: ABA Book Publishing, 2008), 1472 ("The modern, or post-Chicago, analysis of the foreclosure effects of a vertical merger focus on how foreclosure either raises rivals' costs or reduces their revenues, and how these negative effects on rivals result in an anticompetitive effect, that is, harm to consumer efficiency.").

18 For example, empirical evidence shows that after the vertical merger between an insurer and a pharmacy benefit manager, insurance premiums increase for rival insurers. Charles Gray, Abby Alpert, and Neeraj Sood, "Disadvantaging Rivals: Vertical Integration in the Pharmaceutical Market," *American Economic Journal: Applied Economics* 18, no. 1 (2026): 286–304.

19 Carl M. Shapiro, "Vertical Mergers and Input Foreclosure Lessons from the AT&T/Time Warner Case," *Review of Industrial Organization* 59, no. 2 (2021): 305 ("The central economic question here is whether the downstream rivals have good substitutes for the input in question.").

20 Carl M. Shapiro, "Vertical Mergers and Input Foreclosure Lessons from the AT&T/Time Warner Case," *Review of Industrial Organization* 59, no. 2 (2021): 305 ("The central question here is whether weakening these downstream rivals would enhance the profits of the merged firm due to diverted downstream sales.").

21 Steven C. Salop and Daniel P. Culley, "Potential Competitive Effects of Vertical Mergers: A How-To Guide for Practitioners" (Georgetown Law Faculty Publications and Other Works 1392, Georgetown University Law Center, Washington, D.C., 2014), 18 ("The methodology compares the reduction in incremental profits borne by the upstream division from reducing its input sales to targeted firms versus the gains in incremental profits achieved by the downstream division when some of the sales of the targeted rivals are diverted to the downstream division."); Russell Pittman, "Three Economist's Tools for Antitrust and Merger Analysis: Case Applications," (Economic Analysis Group Discussion Paper, Antitrust Division, US Department of Justice, June 2021), 25–33.

foreclosed downstream rivals who would switch to the foreclosing firm (often referred to as "recapture").

(25) Partial foreclosure differs from total foreclosure in that it evaluates whether there is an incentive to continue selling to a downstream rival but on less favorable terms. Partial foreclosure can involve increasing the prices charged to rivals or worsening non-price terms (e.g., service reliability, service speed, or routing arrangements). Partial foreclosure of a downstream rival will often increase that rival's price to its customers (and hence lead it to lose some customers), but does not involve refusing to supply the downstream rival altogether. Partial foreclosure therefore typically leads to fewer lost upstream sales and fewer gained downstream sales. Partial foreclosure analysis also often depends upon the profitability of upstream and downstream sales and recapture.

(26) In some settings, the information necessary to directly evaluate the risk of foreclosure (e.g., the relative profitability of upstream and downstream sales and estimated recapture) may be imperfect or unavailable. In such cases, the risk of foreclosure can be evaluated using four factors identified in the 2023 Joint DOJ-FTC Merger Guidelines.[22] Consider a merger in which the merged firm would control an input product (e.g., access to the rail networks of NS or UP) used by other firms to compete (e.g., BNSF or CSXT on interline routes) for customers (i.e., shippers). In this situation the four factors can be expressed as follows:

- **Availability of substitutes.** If there are limited or no substitutes for the input product, then the risk of foreclosure substantially lessening competition is higher because any withheld input product is more difficult to replace.
- **Competitive significance of the input product.** If the input product is important to rival firms, then the risk of foreclosure substantially lessening competition is higher because the merged firm would have a greater ability to disrupt rival firms' access to the input product.[23]
- **Effect on competition in the relevant market.** If rival firms are important competitors in the market, then the risk of foreclosure substantially lessening competition is higher because any weakening of those firms is more likely to affect downstream customers.
- **Competition between the merged firm and rival firms.** If there is significant downstream competition between the merged firm and rival firms, then the risk of foreclosure substantially

[22] *See* US Department of Justice and Federal Trade Commission, *Merger Guidelines*, 18 December 2023, 14 ("The Agencies assess the merged firm's ability and incentive to substantially lessen competition by limiting access to the related product for a group of dependent rivals in the relevant market by examining four factors.").

[23] The lines between the first factor and the second factor sometimes blur. One way to distinguish between them is that the first factor focuses on horizontal competition between input products while the second factor evaluates vertical interactions between the merging firm and a downstream rival. For example, the merged firm's input product may have many available substitutes and yet be the only input used by downstream rival Firm C.

lessening competition is higher because sales lost by foreclosed rival firms are more likely to be recaptured by the merged firm (which makes foreclosure more profitable).

(27) Data are often available to analyze these factors. If all of these factors imply a material risk of foreclosure for a transaction, then that transaction is likely to substantially lessen competition.

5. The CP/KCS merger likely resulted in foreclosure

(28) The CP/KCS merger is the most recent end-to-end merger of two Class I railroads in North America. It was approved by the Board on 15 March 2023 with attached conditions designed to protect competition and prevent foreclosure.[24] It presents a natural experiment that one can use to assess the likelihood that an end-to-end merger will harm competition through foreclosure.

(29) Before discussing the CP/KCS merger and its effects, it is worth noting that the proposed UP/NS merger has the potential to affect a greater share of the rail network than did the CP/KCS merger. UP and NS's combined 2023 interline revenue was almost {{[redacted]}}, whereas CP and KCS's combined pre-merger 2022 interline revenue was {{[redacted]}}.[25] These amounts represented {{[redacted]}} and {{[redacted]}}, respectively, of total United States interline freight rail revenue in the corresponding years. Similarly, UP and NS's interline partners generate higher revenue than did CP/KCS's interline partners: UP and NS's combined interline partner revenue was {{[redacted]}}, whereas CP/KCS's interline partner revenue was {{[redacted]}}.[26]

(30) In this section I analyze the impact of the CP/KCS merger on competition. I focus my retrospective analysis of the merger's effects on origin-destination pairs ("corridors") between Mexico and Chicago, following Dr. Salop's (one of UP's experts in that proceeding) prospective analysis.[27] I compare the carloads carried by different carrier combinations (e.g., "BNSF + KCS" and "UP + KCS") on these routes from 2021 to 2024.[28] This allows me to assess the likelihood that UP and BNSF were foreclosed on the Mexico-Chicago corridors as a result of the merger. It also allows me to evaluate the likelihood that shippers were harmed. I examine traffic from Mexico to Chicago in the main text and traffic from Chicago to Mexico in Appendix D. I do so in the interest of brevity given that the results are similar.

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[24] Surface Transportation Board Decision, Canadian Pacific Railway Limited—Control—Kansas City Southern, Finance Docket No. 36500 (Surface Transportation Board 15 March 2023), 1–5.

[25] I define interline revenue as revenue generated by shipments with two or more carriers. I use "KCS" to represent KCS in the United States and KCSM in Mexico prior to the CP/KCS merger.

[26] UP and NS's combined interline partner revenue excludes UP (NS) revenue when they interlined with NS (UP). CP/KCS's interline partner revenue excludes CP and KCS revenue when they interlined with each other.

[27] *See* Verified Statement of Steven C. Salop, Canadian Pacific Railway Limited—Control—Kansas City Southern, Finance Docket No. 36500 (Surface Transportation Board 27 February 2022) [hereinafter "Salop Statement"], ¶ 13. I define the Chicago area as Business Economic Area ("BEA") 064 (Chicago-Gary-Kenosha, IL-IN-WI). *See* Railinc, 2024 Surface Transportation Board Carload Waybill Sample Reference Guide, 10 April 2026 [hereinafter "2024 Waybill Reference Guide"].

[28] {{{[redacted]}}}

(31) Figure 5 depicts annual Mexico-to-Chicago carloads carried by KCS when interlining with other carriers from 2021 to 2024.[29,30] The green line in the figure depicts annual carloads carried by CP/KCS, the yellow line depicts annual carloads carried by BNSF and KCS, and the blue line depicts annual carloads carried by UP and KCS. The gray dashed vertical line depicts the year in which the CP/KCS merger was approved and completed.[31]

[29] "CP/KCS Single-line" represents the routes served by CP and KCS pre-merger and CP/KCS post-merger.

[30] The "BNSF (UP) + CP/KCS" group includes routes that were served by BNSF (UP) and CP/KCS, with an optional third carrier that is not UP (BNSF) or Ferrocarril Mexicano ("FXE"). I exclude routes involving CP/KCS interlining with carriers other than BNSF or UP. The excluded traffic accounts for {{{[redacted]}}} of the total carloads involving CP/KCS moving from Mexico to Chicago between 2021 and 2024.

[31] The CP/KCS merger was completed on 14 April 2023. *See* CPKC, "Canadian Pacific and Kansas City Southern combine to create CPKC," 14 April 2023, https://investor.cpkcr.com/news/press-release-details/2023/Canadian-Pacific-and-Kansas-City-Southern-combine-to-create-CPKC/default.aspx.

Figure 5. Annual interline Mexico-to-Chicago carloads carried by KCS, 2021–2024

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(32) The figure shows that the merger dramatically reshaped the interline traffic carried by KCS from Mexico to Chicago. {{{ }}} This evidence is consistent with CP/KCS having partially foreclosed BNSF and UP on this corridor despite the protections afforded to BNSF and UP by the Board.

(33) Figure 6 depicts BNSF's annual interline carloads from Mexico to Chicago between 2021 and 2024. The yellow line depicts annual carloads carried by BNSF and KCS, and the dark blue line depicts the

annual carloads carried by BNSF and FXE. The gray dashed vertical line depicts the year in which the CP/KCS merger was approved and completed.

Figure 6. Annual interline Mexico-to-Chicago carloads carried by BNSF, 2021–2024

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(34) Figure 6 shows that {{{ }}}[32] These

[32] Dr. Salop stated that "[e]ven when it is a feasible alternative, FXE is not a perfect substitute for KCSM." *See* Salop Statement, ¶ 71; n. 55. For example, UP noted that "KCSM often has significant routing advantages for cross-border traffic, even when shippers have access to both KCSM and FXE" in its comments to the Board regarding the CP/KCS merger. *See* Union Pacific's Comments and Requests for Condition, Canadian Pacific Railway Limited—Control—Kansas City Southern, Finance Docket No. 36500 (Surface Transportation Board 28 February 2022), 18.

results are consistent with the merger having harmed shippers (as shipments moved to a less preferred alternative) and BNSF ({{{[redacted]}}}).

(35) Figure 7 is identical in structure to Figure 6 except that it depicts annual interline carloads carried by UP from Mexico to Chicago between 2021 and 2024. The results in Figure 7 are consistent with those in Figure 6: {{{[redacted]}}}[33] These results are consistent with the merger having harmed shippers (as shipments moved to a less preferred alternative) and UP ({{{[redacted]}}}).

[33] Dr. Salop noted that FXE is not a perfect substitute for KCSM. Salop Statement, ¶ 71. As an example, UP's witnesses, in their verified statement opposing the CP/KCS merger, highlighted KCSM's geographic advantages over FXE and how that led to most of UP's traffic between the United States and the Mexico City area being moved via Laredo. *See* Verified Statement of Kenny Rocker and John Turner, Canadian Pacific Railway Limited—Control—Kansas City Southern, Finance Docket No. 36500 (Surface Transportation Board 27 February 2022), 7 ("FXE's route from the Mexico City area to Eagle Pass is 55% (392 miles) longer than KCSM's route to Laredo. As one might expect, given the mileage difference, nearly 80% of UP's traffic between the United States and the Mexico City area moves via the Laredo Gateway.").

Figure 7. Annual interline Mexico-to-Chicago carloads carried by UP, 2021–2024

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(36) Figure 5 depicts traffic from Mexico to Chicago before and after the CP/KCS merger. It shows that the merger materially affected traffic from Mexico to Chicago in a way that is consistent with foreclosure of rival carriers and harm to shippers. I next examine whether the changes in traffic carried by CP/KCS could alternatively be explained by merger efficiencies.

(37) Figure 8 depicts annual interline carloads involving KCS or FXE from Mexico to Chicago between 2021 and 2024.[34] The dark green line depicts annual carloads involving KCS and the purple line

[34] I exclude any traffic that was carried by both CP/KCS and FXE, or by neither CP/KCS nor FXE. These excluded carloads account for {{ }} of the total carloads shipping from Mexico to Chicago between 2021 and 2024.

depicts annual carloads involving FXE. The gray dashed vertical line depicts the year in which the CP/KCS merger was approved and completed.

Figure 8. Annual interline Mexico-to-Chicago carloads carried by KCS or FXE, 2021–2024

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(38) The figure shows that {{{ }}} These findings are consistent with vertical foreclosure rather than vertical efficiency. If the CP/KCS single-line service had improved efficiency and hence attracted shippers, then one would expect shipments involving KCS to have increased post-merger. {{{ }}}

[redacted]}}}[35] The results are consistent with CP/KCS having foreclosed its rivals and harmed shippers on this corridor.

(39) These findings are consistent with concerns raised by customers prior to the approval of the CP/KCS merger. The National Grain and Feed Association argued that creating new single-line CP/KCS routing "will come at the expense of potentially eliminating many existing joint line routings between the KCS and other Class I railroads," as the merged firm "will have strong incentives to favor its new single-line routes through rate-setting and operational terms that result in those existing 'gateways' being closed."[36] The National Grain and Feed Association further noted that, while CP/KCS pledged to provide upon request Rule 11 rates to keep current gateways open, "the rates, charges, and other terms for these alternatives could be 'quite painful' for a shipper to choose over [CP/KCS's] preferred single-line routes."[37]

[35] UP's expert witnesses noted in their verified statements opposing the CP/KCS merger that FXE is not a perfect substitute for KCSM and KCSM often has routing advantages over FXE. *See* n. 32; n. 33.

[36] Opening Comments of the National Grain and Feed Association, Canadian Pacific Railway Limited—Control—Kansas City Southern, Finance Docket No. 36500 (Surface Transportation Board 28 February 2022), 5.

[37] Opening Comments of the National Grain and Feed Association, Canadian Pacific Railway Limited—Control—Kansas City Southern, Finance Docket No. 36500 (Surface Transportation Board 28 February 2022), 7. The National Grain and Feed Association quoted CP/KCS that "[CP/KCS] will compete aggressively to win traffic to our new single-line offerings, including with single line rates that might be quite painful for our interline rivals to beat."

6. The merger puts at risk a substantial volume of commerce

(40) The proposed merger risks reducing interline competition. This is because interline traffic requires multiple carriers to work together, which may give a particular carrier (or carriers) the ability to reduce competition by changing existing agreements and practices. In this section I quantify the size of corridors at the Business Economic Area ("BEA") level that are potentially at risk of harm.[38] Specifically, I focus on corridors on which in 2023 UP served one endpoint and NS served the other, in either direction, and alternative carriers were available.[39]

(41) Figure 9 summarizes traffic on interline corridors that are jointly served by UP and NS and at least one other carrier.[40] The figure shows that there were {{[redacted]}} of shipments on at-risk corridors in 2023.[41] This indicates that a substantial volume of commerce is potentially at risk of harm.

[38] I follow Dr. Bailey's and Dr. Israel's approach to define corridors based on BEA pairs. Dr. Bailey describes the benefits of analyzing access using the BEA, including that it "captures potential changes in the number of options available to customers that use truck to deliver freight to an access point, so that the geographic scope of competitive rail alternatives includes more than just the customer location. It can also capture some aspects of potential competition for customers that are expanding or relocating within an area and are choosing where to site their facility." *See* Bailey Statement, ¶ 117; *see also* Verified Statement of Mark A. Israel, Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket No. 36873 (Surface Transportation Board 4 September 2026) [hereinafter "Israel Statement"], ¶ 79 ("I define a 'corridor' as all routes with origins or destinations in a BEA pair connected by single or interline rail service.").

[39] This includes Class II and Class III carriers.

[40] There are different types of corridors that could pose a potential risk of harm. For example, Dr. Salop, in his verified statement regarding the CP/KCS merger, asserted that an end-to-end merger can still give the merged firm an incentive to foreclose rivals on corridors where at least one rival carrier serves the origin and destination. That means a corridor that is served by UP-NS, BNSF-NS, UP-CSXT, and BNSF-CSXT can be subject to foreclosure risk after the UP/NS merger. *See* Salop Statement, ¶¶ 64–68. Shippers have also flagged other types of foreclosure concerns about the UP/NS merger. *See* Appendix C for details.

[41] This accounts for {{[redacted]}} of total interline shipment revenue in 2023.

Figure 9. Interline revenue potentially at risk from the merger, 2023

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7. The merger is likely to result in foreclosure and harm shippers

(42) In this section I analyze whether the UP/NS merger is likely to result in foreclosure. I do so by applying the 2023 Merger Guidelines risk factors to the proposed merger. I conclude based on this analysis that the merged firm is likely to engage in foreclosure.

(43) Before turning to this analysis, several other points are worth making. First, the arguments made by UP's economic experts, when combined, are consistent with the merged firm having the ability to foreclose rival carriers. Dr. Israel asserts that the merged firm will attract traffic from rival carriers through lower costs and higher quality.[42] This implies that the merged firm could also attract traffic by raising rival carriers' costs or by decreasing rival carriers' quality. Dr. Salop, when acting on behalf of UP in opposing the CP/KCS merger, confirmed this intuition by asserting in his verified statement that "if a merged firm with a monopoly on one segment can divert traffic by reducing its own costs, then it normally also can divert traffic by raising its rivals' costs."[43]

(44) Second, the merged firm will have a variety of ways to foreclose rivals. Dr. Salop listed some of these foreclosure measures, including eliminating competitors' access to the merged firm's segments, increasing competitors' interline rates, and increasing the division paid by competitors.[44] The merged firm can also engage in non-price foreclosure measures, such as imposing delays for competitors.[45]

(45) Third, UP and NS today account for a higher share of interline routes in the United States than did CP and KCS at the time of their merger. The proposed merger would therefore likely give the merged firm a larger ability to foreclose competing railroads.[46]

(46) Fourth, shippers have expressed concerns about the ability of the merged firm to foreclose rival carriers. For example, the Joint Shipper Associations state that due to the high overlap of the NS and CSXT networks, the combined UP/NS could "capture extended long-hauls for nearly the entire

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42 *See* Israel Statement, ¶¶ 128–130 ("Some shippers will switch from their current interline option to single-line service on UP/NS, indicating that, as the result of service improvements and investments in the combined UP/NS rail network, the merged carrier offers superior service at lower quality-adjusted prices […] a direct demonstration of the benefits generated by the merger comes from the fact that the merged carrier's single-line service is expected to attract business from its competitors.").

43 *See* Salop Statement, ¶ 16.

44 *See* Salop Statement, ¶ 44 ("When one merging rail carrier has a monopoly position on its segment, it can foreclose the unintegrated competitors of its merging partner by eliminating their access to its segment or by raising the division it charges the unintegrated carrier for movements on its monopoly segment, or its Rule 11 rate for the segment.").

45 *See* Salop Statement, ¶ 76 ("[T]he merged firm could further increase the traffic diversion rate by engaging in supplemental foreclosure tactics such as raising KCSM rates on interline movements or non-price foreclosure tactics."); *see also* Salop Statement, n. 25 ("[…] non-price forms of foreclosure, such as causing delays, or an outright refusal to interline.").

46 Among the interline routes, UP and NS collectively accounted for {{[redacted]}} of the total traffic in 2023, whereas CP/KCS accounted for {{[redacted]}} in 2022.

distance of most interline routes from pre-merger UP origins to CSX[T] destinations."[47] They also state that the merged entity could "completely foreclose CSX[T] and BNSF interline routes with UP on all moves that create a new UP-NS single line route to competitively served destinations."[48] Similarly, the United Sugar Producers & Refiners Cooperative (USPR), which primarily relies on BNSF and NS to deliver sugar from its western facilities to customers east of the Mississippi, argues that the merged firm would be unlikely to "offer competitive rates or short-haul options" for USPR's western facilities (i.e., NS's rate on the interline of BNSF and NS).[49]

7.1. The merger satisfies all four 2023 Merger Guidelines foreclosure risk factors

(47) The 2023 Joint DOJ-FTC Merger Guidelines identify four factors that affect the risk of foreclosure in a vertical merger.[50] In this section I evaluate those risk factors in the context of this merger.[51] I find that all four risk factors apply. This is consistent with the risk of vertical foreclosure from the merger being high.

(48) The first risk factor is the availability of substitutes. BNSF has few viable substitutes for NS and UP on a significant volume of its traffic. Of all BNSF routes that are at risk of foreclosure, NS and UP account for {{[redacted]}} of the revenue for carriers with whom BNSF can partner.[52]

(49) CSXT also has few viable substitutes for NS and UP on a significant volume of its traffic. Of all CSXT routes that are at risk of foreclosure, NS and UP account for {{[redacted]}} of the revenue for carriers with whom CSXT can partner. The lack of availability of substitutes for the merged firm is therefore a material risk for both BNSF and CSXT.[53]

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47 *See* Appendix C.

48 Joint Shipper Associations Motion for Summary Denial, Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket No. 36873 (Surface Transportation Board 6 August 2026), 29–31.

49 Letter from United Sugar Producers & Refiners re: STB Docket No. FD 36873, Union Pacific Corp., et al.—Control—Norfolk Southern Corp. at *(sic)* al., 26 August 2026.

50 *See* US Department of Justice and Federal Trade Commission, *Merger Guidelines*, 18 December 2023, 14 ("The Agencies assess the merged firm's ability and incentive to substantially lessen competition by limiting access to the related product for a group of dependent rivals in the relevant market by examining four factors.").

51 I rely on Dr. Bailey's 2023 combined Waybill data, limited to two- or three-leg shipments. I exclude legs with missing interchange location from my analysis.

52 Carriers with whom BNSF and CSXT can partner include those serving single-line and interline routes. To assess the substitutes for UP and NS, I limit to legs where NS or UP are available to serve. BEAs are identified using Dr. Israel's SPLC to BEA translation (SPLC_BEA.xlsx).

53 Of all BNSF interline routes with two or three legs in 2023, NS and UP account for {{[redacted]}} of all carriers' revenues with whom BNSF can partner. Similarly, of all CSXT interline routes with two or three legs in 2023, NS and UP account for {{[redacted]}} of all carriers' revenues with whom CSXT can partner. Carriers with whom BNSF and CSXT can partner include those serving single-line and interline routes. To assess the substitutes for UP and NS, I limit to legs where NS or UP are available to serve. BEAs are identified using Dr. Israel's SPLC to BEA translation

(50) The second risk factor is the competitive significance of NS and UP to BNSF and CSXT. NS and UP are of great competitive significance to BNSF on a material volume of traffic. Of all BNSF routes that are at risk of foreclosure in 2023, routes with NS and UP account for {{{[redacted]}}} of BNSF's revenue subject to foreclosure.

(51) NS and UP are similarly of great competitive significance to CSXT on a material volume of traffic. Of all CSXT routes that are at risk of foreclosure in 2023, routes with NS and UP account for {{{[redacted]}}} of CSXT's revenue subject to foreclosure. This risk factor is therefore satisfied for both BNSF and CSXT.[54]

(52) The third risk factor is the effect on competition if BNSF or CSXT were to be partially or fully foreclosed. BNSF and CSXT account for {{{[redacted]}}} and {{{[redacted]}}}, respectively, of revenue on corridors that are at risk of foreclosure.[55] This combined {{[redacted]}}, however, understates their joint significance, as the denominator includes sales made by UP and NS. After removing UP and NS from the calculation, BNSF and CSXT account for {{[redacted]}} of the total revenue earned by railroads that compete with NS and UP on these at-risk corridors. BNSF and CSXT are therefore of great competitive significance. This risk factor is therefore satisfied.

(53) The fourth risk factor is the degree of competition between the merged firm and rival firms. BNSF and CSXT compete closely with UP and NS. BNSF and UP compete closely to serve shippers in the west, while CSXT and NS compete closely to serve shippers in the east. UP accounts for {{{[redacted]}}} of BNSF's competitors' revenues on BNSF's interline routes that are at risk of foreclosure. NS, meanwhile, accounts for {{{[redacted]}}} of CSXT's competitors' revenues on CSXT's interline routes that are at risk of foreclosure.[56] This risk factor is therefore satisfied.

(54) Figure 10 summarizes these four Merger Guidelines foreclosure risk factors. It shows that the proposed merger triggers all four risk factors. This is consistent with the transaction being likely to substantially lessen competition.[57]

(SPLC_BEA.xlsx).

54 Of all BNSF interline routes with two or three legs in 2023, routes with NS and UP account for {{{[redacted]}}} of BNSF's interline revenue. Of all CSXT interline routes with two or three legs in 2023, routes with UP and NS account for {{{[redacted]}}} of CSXT's interline revenue. BEAs are identified using Dr. Israel's SPLC to BEA translation (SPLC_BEA.xlsx).

55 On all interline routes with two or three legs in 2023, after removing UP and NS from the calculation, BNSF and CSXT accounted for {{[redacted]}} of total revenue.

56 Similarly, UP accounts for {{{[redacted]}}} of BNSF's competitors' revenues on all BNSF's interline routes with two or three legs. NS, meanwhile, accounts for {{{[redacted]}}} of CSXT's competitors' revenues on all CSXT's interline routes with two or three legs. Competitors to BNSF and CSXT include those serving single-line and interline routes. To assess the competitors to BNSF, I limit to BNSF's legs such that (1) they can be served by UP and (2) their interline legs can be served by UP and/or NS. To assess the competitors to CSXT, I limit to CSXT's legs such that (1) they can be served by NS and (2) their interline legs can be served by UP and/or NS. BEAs are identified using Dr. Israel's SPLC to BEA translation (SPLC_BEA.xlsx).

57 {{[redacted]

Figure 10. The merger satisfies all four 2023 Merger Guidelines foreclosure risk factors

Factors	Notes	BNSF	CSXT
Availability of substitutes	Are there limited substitutes for UP or NS on many routes?	✓	✓
Competitive significance of the input product	Are UP and NS important to BNSF or CSXT?	✓	✓
Effect on competition in the relevant market	Do shippers rely on a combination of BNSF or CSXT and the merging firms in some areas?	✓	✓
Competition between the merged firm and rival firms	Do UP and NS compete significantly with BNSF or CSXT?	✓	✓

Source: US Department of Justice and Federal Trade Commission, *Merger Guidelines*, 18 December 2023.

[redacted]}}

8. The one-lump theory is not relevant to the proposed merger

(55) Dr. Israel asserts in his verified statement that vertical mergers tend to be benign.[58] He asserts that this is true in part because of what he calls the "one-monopoly rent" theory.[59] The "one-monopoly rent" theory—also known as the "one-lump" theory—observes that in some circumstances a vertical merger between firms in two different segments of a supply chain may not reduce competition if one of the firms is a monopolist, the other faces perfect competition, and additional assumptions hold.[60] The intuition behind the theory is that a monopolist firm in a vertical relationship with a perfectly competitive firm may have already extracted the maximum profit available in both segments. In other words, there is no competition that benefits consumers today due to the upstream monopoly, so a vertical merger can't make things worse.[61] The one-lump theory predicts that an end-to-end merger in the railroad industry cannot harm shippers on a two-segment route that involves a monopolist in one segment and perfect competition in the other segment because shippers on such a route are already suffering maximum harm.[62,63]

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58 Israel Statement, Appendix B, B-2–B-3 ("[In some through-rate institutions], a vertical merger very often eliminates double marginalization (a benefit) or is benign (the 'one-monopoly rent' idea), and [in other through-rate institutions], competition at both levels constrains pricing both pre- and post-merger, working against harmful effects… In settings with complete information and without contracting externalities holding prices below the fully integrated level, a single vertical merger tends to be pro-competitive in all five pricing institutions.").

59 Dr. Israel asserts that shippers frequently negotiate contracts rather than take prices as given. He further asserts that standard economic theories of foreclosure do not apply in this case because shippers and railroads will bargain to reach efficient contracts both before and after the merger. Israel Statement, ¶ 17. However, efficient bargaining does not always mean that it is good for consumers. For example, perfect price discrimination is efficient, but it does not maximize consumer welfare. Although perfect price discrimination eliminates the deadweight loss associated with monopoly pricing, it allows the monopolist to take all of the surplus that would otherwise accrue to consumers. *See* Walter Nicholson and Christopher Snyder, *Intermediate Microeconomics and Its Application*, 13th ed. (Boston, MA: Cengage Learning, 2022), 363–364 ("In this case [perfect price discrimination], all of the consumer surplus available in the market has been transferred into monopoly profits. […] this perfect price discrimination scheme results in an equilibrium that is economically efficient.").

60 *See* Salop Statement, ¶¶ 21–22. Dr. Salop, at the request of UP, described the one-lump theory in this statement in connection with the Board's review of the proposed acquisition of control of KCS by CP. Dr. Salop noted that the "one-lump" theory in the railroad industry is called the "single monopoly profit" theory in the industrial organization literature ("The economic underpinning of the one-lump theory in rail transport is the so-called 'single monopoly profit' theory developed in the early industrial organization economics literature analyzing tying and then applied to vertical mergers."). *See also* Jeffrey Church, "Vertical Mergers," in *Issues in Competition Law and Policy,* ed. Wayne Dale Collins (Chicago: ABA Book Publishing, 2008), 1468–1469 ("[T]here is only one monopoly profit, and hence a monopolist upstream cannot increase its profits by leveraging its monopoly power into a competitive downstream market.")*; see also* Steven C. Salop, "Invigorating Vertical Merger Enforcement," *Yale Law Journal* 127, no. 1 (May 2018): 1968 ("A second core Chicago School claim is that an unregulated monopolist can obtain only a single monopoly profit, so it would gain no additional market power from foreclosure through tying or vertical merger.").

61 For the railroad industry, the theory would require that a shipper on a route that combines a monopolist segment and a competitive segment is no better off, all other things being equal, than a shipper faced with a single, monopolist segment.

62 *See* Salop Statement, ¶¶ 21–22. *See also* Jeffrey Church, "Vertical Mergers," in *Issues in Competition Law and Policy,* ed. Wayne Dale Collins (Chicago: ABA Book Publishing, 2008), 1468–1469*; see also* Steven C. Salop, "Invigorating Vertical Merger Enforcement," *Yale Law Journal* 127, no.1 (May 2018): 1968–1969.

63 Perfect competition is typically characterized by the following assumptions: (1) firms are price takers, (2) firms produce homogeneous products, and (3) firms can enter and exit the market freely. *See* Robert S. Pindyck and Daniel L. Rubinfeld, *Microeconomics*, 9th ed. (Pearson Global Edition, 2018), 290. In the literature, perfect information is also

(56) But economic research has found that the one-lump theory only applies if certain assumptions hold and that these assumptions are restrictive. Dr. Salop, UP's expert witness in the CP/KCS merger, asserted that the one-lump theory rarely applies as a result.[64] In this section, I present evidence that the one-lump theory does not apply to the proposed merger between NS and UP due to its overly restrictive assumptions.

8.1. The one-lump theory and its assumptions

(57) The one-lump theory asserts that, under certain assumptions, a monopolist cannot obtain additional profits by vertically integrating with a firm in a competitively adjacent segment because it already earns the full monopoly profit.[65] The theory requires a setting in which one firm is a monopolist producer of an essential input while there is perfect competition among two or more competing firms in the downstream segment.[66] These competitors use the input to produce an undifferentiated output that they sell to consumers.[67] The theory also assumes that firms have perfect information about one another's costs and prices.[68]

(58) The one-lump theory posits that the monopolist in such a setting can (and will) extract the full monopoly profit from consumers, which means that the monopolist acquiring one of the competing firms will not increase the monopolist's profit. That is, the theory posits that in this setting there is

noted as an assumption of perfect competition. Walter Nicholson and Christopher Snyder, *Microeconomic Theory: Basic Principles and Extensions*, 13th ed. (Mason, OH: Cengage Learning, 2026), 391 ("A perfectly competitive market is one that obeys the following assumptions. […] Prices are assumed to be known by all market participants—information is perfect.").

64 Steven C. Salop, "Invigorating Vertical Merger Enforcement," *Yale Law Journal* 127, no. 1 (May 2018): n. 31 ("Note that there is no EDM in the rare situation when the single monopoly profit theory applies.").

65 *See* Rey and Tirole (2007), 2155 ("It argued that there is a single source of monopoly profit, and that a bottleneck monopolist can already earn the entire monopoly profit without extending its market power to related segments; and so in the absence of efficiency gains, vertical integration cannot increase the profitability of the merging firms.").

66 *See* Jeffrey Church, "Vertical Mergers," in *Issues in Competition Law and Policy,* ed. Wayne Dale Collins (Chicago: ABA Book Publishing, 2008), 1469 ("The model establishes the single profit result: there is only one monopoly profit, and hence a monopolist upstream cannot increase its profits by leveraging its monopoly power into a competitive downstream market."). Similarly, this theory also applies in the setting where the monopolist is the only downstream firm that has access to customers, while there is perfect competition among two or more upstream firms. Salop Statement, n. 7 ("The logic of this 'vertical' merger model also applies to mergers of complementary products. In that version, there is a monopoly producer of one of the complements and multiple competitors for the other complement.").

67 *See* Jeffrey Church, "Vertical Mergers," in *Issues in Competition Law and Policy,* ed. Wayne Dale Collins (Chicago: ABA Book Publishing, 2008), 1469 ("[…] the product downstream is homogeneous […]"). *See also* Salop Statement, ¶ 22 ("[…] two or more firms with perfect information producing an undifferentiated (homogeneous) 'output'").

68 *See* Salop Statement, ¶ 23 ("[…] there are market conditions in which the single monopoly profit theory is upended. These involve conditions under which the competing downstream firms earn a positive margin over costs, arising from the fact that the companies are selling differentiated products or operating with imperfect information regarding each other's prices and costs."). *See also* Jeffrey Church, "Vertical Mergers," in *Issues in Competition Law and Policy,* ed. Wayne Dale Collins (Chicago: ABA Book Publishing, 2008), 1469 ("The single monopoly profit result is based on five assumptions: […] all downstream firms have the same costs of production."). Note that Church's assumption is stronger than Salop's assumption, since all downstream firms having the same costs of production must indicate that each firm has perfect information regarding each other's prices and costs, but the opposite may not necessarily be true.

only "one lump" of monopoly profits, and that the monopolist will extract it with or without the acquisition.[69] The monopolist is able to extract the entire lump because it can play the perfectly competitive firms off of one another (driving their profits to zero) and set its input price to them such that they will price at the downstream monopoly price.

(59) The one-lump theory requires that the competitive segment has perfect competition and that the monopolized segment is monopolized. If these assumptions fail, then the theory no longer applies, and a vertical merger can reduce competition. It is therefore critical to evaluate whether the one-lump theory's assumptions are consistent with the industry to which it is being applied.[70] This necessity is reinforced by the academic literature finding that vertical mergers can produce anticompetitive effects.[71]

(60) In addition to evaluating the one-lump theory's assumptions, one can also evaluate whether its central prediction holds. It predicts that the carrier on a monopolist segment of a route will earn all of the available profit and that carriers on the competitive segment will earn no profits.[72] If this empirical prediction fails, then the theory is rejected.

(61) Finally, note that the one-lump theory does not evaluate dynamic considerations. In the pre-merger world, the existence of two downstream competitors and an upstream monopolist may stimulate upstream entry. In the post-merger world, if the merger eliminates a potential downstream customer for an upstream entrant, entry may require entering both the upstream and downstream markets simultaneously, which is likely to be a more substantial undertaking, and may decrease the likelihood that entry will occur. If so, then a vertical merger may reduce long-run competition in the industry by discouraging entry.

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69 *See* Salop Statement, ¶ 22 ("According to this theory, the monopolist would not need to acquire one or both of the competitors in the output market in order to be able to extract all of its input monopoly profits from consumers."). *See also* Rey and Tirole (2007), 2155 ("The Chicago School […] argued that there is a single source of monopoly profit, and that a bottleneck monopolist can already earn the entire monopoly profit without extending its market power to related segments.").

70 *See* Michael F. McBride, "The Future of Rail Mergers in North America - The View of the Shippers," *Journal of Transportation Law, Logistics and Policy* 68, no. 2 (2001): 133 ("The 'one-lump theory' […] is only a theory. It should be treated as such by requiring evidence that it is applicable.").

71 *See* Steven C. Salop and Daniel P. Culley, "Potential Competitive Effects of Vertical Mergers: A How-To Guide for Practitioners" (Georgetown Law Faculty Publications and Other Works 1392, Georgetown University Law Center, Washington, D.C., 2014), 6 ("As a practical matter, a merger may lead to foreclosure that leads to market or monopoly power in one or both of the markets. A merger also may permit firms to achieve or enhance express or tacit pricing coordination or parallel accommodating conduct.").

72 In a perfectly competitive market, free entry and exit drive firms' economic profit to zero in the long run. *See* Robert S. Pindyck and Daniel L. Rubinfeld, *Microeconomics*, 9th ed. (Pearson Global Edition, 2018), 312 ("[I]n competitive markets economic profit becomes zero in the long run.").

8.2. The evidence is inconsistent with the one-lump theory's required assumptions

(62) In this section I evaluate the assumptions of the one-lump theory. I find that the qualitative and quantitative evidence is inconsistent with these assumptions. As a result, the one-lump theory should not be applied to the proposed merger.

8.2.1. Carriers are differentiated

(63) The one-lump theory requires that the firms in the competitive market sell identical products. This assumption is not consistent with carrier competition in the railroad industry. Instead, carriers typically differ on non-price attributes that matter to shippers, including speed, customer service, safety, and reliability. This differentiation is important to consumers, and contradicts the one-lump theory by giving carriers on the competitive segment leverage against the carrier on the monopolized segment.

8.2.1.a. The quantitative evidence is consistent with carrier differentiation

(64) Class I railroads vary in a number of important dimensions. In this section I present quantitative evidence of this differentiation. In particular, I highlight carrier differentiation using the corridor from Detroit to San Antonio as an example.[73] This corridor is the {{[redacted]}} on which (1) only UP or NS serves one end and (2) the other end is served by the other merging party and at least one additional carrier.[74] Shippers have multiple carrier options for the first leg of this corridor, but the San Antonio leg was only served by {{{[redacted]}}} in 2023.[75]

(65) Figure 11 depicts information (e.g., the number of carloads, revenue, and average shipment rate) about routes on the corridor from Detroit to San Antonio. It also depicts the average rate for the UP leg of the journey. Shippers have the option of using CN, CSXT, or NS for the first leg of their journey, and the interchange depends on the carrier. {{{[redacted]}}}

[73] I use city name "Detroit" to refer to the "Detroit-Ann Arbor-Flint, MI" BEA (57) and "San Antonio" to refer to the "San Antonio, TX" BEA (134) unless otherwise indicated. *See* 2024 Waybill Reference Guide.

[74] This analysis is limited to interline routes with two or three legs and excludes corridors that have missing interchange information.

[75] This analysis is limited to interline routes with two or three legs.

Figure 11. Routes for shipments on the Detroit to San Antonio corridor, 2023

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(66) The figure shows that shippers use a variety of routes on this corridor. It also shows that the service offered by the various carriers is differentiated from one another in a number of dimensions. For example, the figure shows that average rates vary materially across the routes.[76]

8.2.1.b. The qualitative evidence is consistent with carrier differentiation

(67) The qualitative evidence is consistent with carriers being differentiated, including evidence cited by UP's economic experts. Dr. Israel, for example, asserts in his verified statement that contracts between shippers and carriers are sophisticated and include many non-price determinants.[77] {{ }} {{ }}

[76] Average rates vary even when carriers are shipping the same commodity. {{ }} 2024 Waybill Reference Guide, 153 (Commodity 37112 is "MOTOR TRUCKS OR TRUCK TRACTORS, ASSEMBLED."); *See* my backup materials.

[77] Israel Statement, ¶ 75 ("Rather than involving a single price at which any amount of traffic can be shipped, [the vast majority of railroad transactions] include volume commitments, different prices for different volumes, specific agreements on how much to ship, and so on.").

[78] UP_0200674 at slide 13 (April 2025 CSXT & Union Pacific meeting deck).

[redacted]

(68) Carriers also explicitly discuss ways in which their services are differentiated in non-price dimensions from those of their competitors. [redacted]

(69) Non-price competition affects carriers' ability to attract and retain customers. [redacted]

(70) In addition to non-price determinants, carriers are differentiated by rates.[86] [redacted]

[79] UP_2140108 at -231 (2025 Union Pacific merger strategy deck).

[80] NS_00119544 at -553–554 (2024 Norfolk Southern Board marketing presentation outline).

[81] UP_1001744 at -755 (11 March 2024 Union Pacific marketing and sales deck).

[82] NS_00127871 at slides 15, 17 (Q4 2020 Norfolk Southern industry market share study decks).

[83] NS_00119544 at -554 (2024 Norfolk Southern Board marketing presentation outline).

[84] UP_2304230 at slide 20 (31 August 2022 Union Pacific contract proposal deck).

[85] UP_0683104 at -105 (December 2019 Union Pacific internal business acquisition email chain).

[86] [redacted]

[87] UP_2293404 at -405 (2 June 2025 Union Pacific deal review deck).

8.2.2. Carriers do not generally know rivals' costs or prices

(71) The one-lump theory assumes that competitors have perfect information about one another's costs and prices.[88] But carriers' costs and prices depend on many factors that are known to the carriers alone and are difficult or impossible for rivals to observe. For example, UP's 2022 filing to the Board concerning the CP/KCS merger discusses KCS's "lack of full information about CP's and UP's costs and pricing and its incomplete knowledge about the particular circumstances and demand factors facing CP's and UP's customers."[89,90] {{[redacted]}} Finally, {{[redacted]}}

8.3. Dr. Israel's arguments are inconsistent with the one-lump theory

(72) In this section I demonstrate that Dr. Israel's arguments are inconsistent with the one-lump theory. The one-lump theory predicts that the carrier on the monopolist segment of a route will extract the route's monopoly profit even before the merger. This means that the carriers on the competitive segment will not earn a profit.[93,94] This predicted outcome—high profit for the carrier on the monopolist segment and no profit for the carriers on the competitive segment—will not occur, however, if the carrier on the monopolized segment in fact faces meaningful competition (e.g., from other modes of transportation) or if competition is not perfect on the competitive segment.

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88 In the literature, perfect information is also noted as an assumption of perfect competition. *See* Walter Nicholson and Christopher Snyder, *Microeconomic Theory: Basic Principles and Extensions*, 13th ed. (Mason, OH: Cengage Learning, 2026), 391 ("A perfectly competitive market is one that obeys the following assumptions. […] Prices are assumed to be known by all market participants—information is perfect.").

89 UP Comments and Requests for Condition, Canadian Pacific Railway—Control—Kansas City Southern, Finance Docket No. 36500 (Surface Transportation Board 28 February 2022), 29.

90 I use "KCS" to represent KCS in the United States and KCSM in Mexico prior to the CP/KCS merger.

91 NS_00793474 at -474 (2023 Norfolk Southern pricing strategy document).

92 NS_00119544 at -545 (2024 Norfolk Southern Board marketing presentation outline).

93 *See* Jeffrey Church, "Vertical Mergers," in *Issues in Competition Law and Policy,* ed. Wayne Dale Collins (Chicago: ABA Book Publishing, 2008), 1469 ("The model establishes the single profit result: there is only one monopoly profit, and hence a monopolist upstream cannot increase its profits by leveraging its monopoly power into a competitive downstream market."). When the one-lump theory applies, a vertical merger would not have elimination of double marginalization (EDM), because the downstream merging partner does not charge any markup before the merger. *See* Steven C. Salop, "Invigorating Vertical Merger Enforcement," *Yale Law Journal* 127, no. 1 (May 2018): n. 31 ("Note that there is no EDM in the rare situation when the single monopoly profit theory applies.").

94 This prediction is inconsistent with the data. {{{[redacted]}}} *See* Federal Register, Vol. 58, No. 9 (1993), 4355; 2023 Bailey Combined Waybill data; *See* my backup materials.

8.3.1. Dr. Israel's claimed efficiencies are inconsistent with the one-lump theory

(73) Dr. Israel, in his verified statement, asserts that the proposed transaction will generate efficiencies by eliminating double marginalization (EDM). Double marginalization is said to occur if both the upstream and downstream firms charge a markup over marginal cost, ignoring that their markup has a deleterious effect on the other firm (and consumers).[95]

(74) Dr. Israel's claim that the merger will eliminate double marginalization requires that on an interline route the carriers on both segments earn positive profits—otherwise there is no double marginalization to eliminate. But if both carriers are earning positive profits, then the conditions of the one-lump theory are violated (and contracts are not efficient, contrary to Dr. Israel's claim).[96] The one-lump theory is therefore inconsistent with Dr. Israel's claim that the merger will eliminate double marginalization.[97] This conceptual inconsistency has been recognized by Dr. Salop, one of UP's expert witnesses in the CP/KCS merger, who states that the elimination of double marginalization is impossible when the one-lump theory applies.[98]

8.3.2. Dr. Israel's assertion of robust truck competition is inconsistent with the one-lump theory

(75) A prerequisite for the one-lump theory is that the monopolist firm has already extracted the monopoly profit on an interline route (and thus a vertical merger cannot make things worse).[99] This requires that there be no competition on the monopolist segment of the interline route. In his statement, however,

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95 *See* Robin S. Lee, Michael D. Whinston, and Ali Yurukoglu, "Structural empirical analysis of contracting in vertical markets (2021)," in *Handbook of Industrial Organization*, 4, no. 1, eds. Kate Ho, Ali Hortaçsu, and Alessandro Lizzeri (Amsterdam: Elsevier, 2021), 678 ("This inefficiency from the perspective of the manufacturer and retailer arises because of a vertical externality: the retailer, ignoring the fact that lower sales reduce the manufacturer's profit when $w > c_M$, sets too high a price from their joint perspective. This is the famous 'double marginalization problem.'").

96 Israel Statement, ¶ 101 ("Double marginalization occurs because each railroad raises its price to maximize its own profits without regard for the negative impact of its price on the sales of its partner on joint movements. Double marginalization illustrates the problem that neither railroad has efficient pricing incentives because neither has the optimal marginal profit incentive."); Israel Statement, ¶ 110 ("Technically speaking, double marginalization refers to the presence of successive markups in vertical settings, where each of the upstream and downstream firms charges a markup over marginal cost.").

97 Paul Belleflamme and Martin Peitz, *Industrial Organization*, 2nd ed. (Cambridge, UK: Cambridge University Press, 2015), 435 ("In the extreme, if inputs for the downstream firms are in perfectly competitive supply, double marginalization is no longer an issue because upstream firms are unable to sell at a positive markup.").

98 *See* Steven C. Salop, "Invigorating Vertical Merger Enforcement," *Yale Law Journal* 127, no. 1 (May 2018): n. 31 ("Note that there is no EDM in the rare situation when the single monopoly profit theory applies.").

99 *See also* Jeffrey Church, "Vertical Mergers," in *Issues in Competition Law and Policy,* ed. Wayne Dale Collins (Chicago: ABA Book Publishing, 2008), 1468–1469 ("[T]here is only one monopoly profit, and hence a monopolist upstream cannot increase its profits by leveraging its monopoly power into a competitive downstream market.").

Dr. Israel asserts that UP and NS compete directly with trucks. In particular, he asserts that the proposed merger "will allow rail to compete more effectively with trucks."[100]

(76) Dr. Israel also cites an academic article that he asserts implies a "quite high degree of elasticity between truck and rail."[101] If, for the sake of argument, truck and rail compete directly on an interline route and are good substitutes for each other (as a high degree of elasticity between them would imply), then neither carrier on that interline route should be considered a monopolist. Dr. Israel's assertion that there is meaningful competition between truck and rail therefore directly contradicts the one-lump theory.

[100] Israel Statement, ¶ 11 ("These benefits include: more effective competition and service from increased single-line options—an improvement that will allow rail to compete more effectively with trucks and to serve historically underserved areas…").

[101] *See* Israel Statement, ¶ 138, n.74.

9. BNSF's proposed conditions would likely mitigate the risk of foreclosure

(77) I conclude, based on the evidence in the preceding sections, that the proposed merger is likely to result in foreclosure, thereby harming competition, shippers, and rival carriers. I therefore conclude that the proposed merger should be blocked.

(78) Notwithstanding this view, BNSF has proposed that the Board impose a number of conditions on the merger intended to mitigate the risk of harm should the Board permit the merger to proceed. Those conditions can be broadly classified into two categories: global conditions and geographic conditions.[102] The global conditions are:

- An Interline Preservation Mechanism ("IPM") that would keep gateways open by requiring the merged firm to establish a permanent, interline-equivalent haulage program.
- An open access regime that would create a permanent switching right for shippers at qualifying facilities that are solely served by UP/NS at a cost-based fee.[103]

(79) The global conditions are intended to apply wherever the specified conditions are met. BNSF's proposed geographic conditions, on the other hand, are designed to address concerns in specific geographic regions and gateways. The geographic conditions include the Pennsylvania Intermodal Condition and the Gulf Coast Condition.[104]

(80) In this section I discuss the proposed global conditions and two of the geographic conditions. I find that these conditions are likely to mitigate the likelihood of vertical foreclosure should the merger be approved by the Board.

9.1. BNSF's proposed global conditions would likely mitigate the risk of foreclosure

(81) BNSF's first global condition seeks an IPM, which would require the merged firm to establish a permanent, interline-equivalent haulage program. The program would use standardized proportional

[102] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[103] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[104] In addition to these two geographic conditions, BNSF also requests four more conditions. Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

rates and include oversight by an independent compliance monitor, in addition to service, equipment, and performance standard obligations.[105] The IPM would mitigate harm to interline competition by allowing BNSF to continue competing for traffic to and from locations currently served by NS.[106] In particular, the IPM condition would mitigate the loss of access to major interchange gateways and also create transparent, proportional-rate pricing rules, allowing carriers to compete across the rail network.[107] Additionally, the IPM condition also requires that the merged firm maintain the same service quality.[108]

(82) BNSF's second global condition requests a regime that would create a permanent open access switching right for rail customers located at qualifying facilities that are solely served by UP/NS at a cost-based fee.[109] The open access condition would permit such shippers to choose either the combined UP/NS for the entire shipment or a competing railroad for part of that shipment.[110] The open access condition would mitigate several concerns related to the proposed merger. First, it would prevent UP/NS from bundling its competitive routes with facilities only served by the merged carrier.[111] Second, it would protect customers from the threat of retaliation from the merged firm.[112]

(83) The IPM and the open access condition, by reducing the likelihood of foreclosure, would mitigate the risk that the merger would harm shippers and other carriers.

[105] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[106] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[107] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[108] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[109] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[110] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[111] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[112] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

9.2. BNSF's proposed Pennsylvania Intermodal Condition would likely mitigate the risk of foreclosure

(84) The Pennsylvania Intermodal Condition proposes that the Board grant BNSF overhead trackage rights on a number of NS lines between Chicago and Bethlehem, Pennsylvania.[113] These trackage rights would also allow BNSF to access four existing intermodal facilities and any new intermodal facilities that are served by the subject lines.[114] In particular, the Pennsylvania Intermodal Condition proposes that the merged firm be required to grant BNSF access to and use of the following NS facilities:[115]

- Harrisburg intermodal facility
- Pittsburgh intermodal facility
- Rutherford intermodal facility

(85) BNSF intends in addition to negotiate access to Phoenix Rail's Bethlehem intermodal facility through a separate commercial agreement with Phoenix Rail.[116] The Pennsylvania Intermodal Condition also proposes that UP/NS be required to provide haulage service for BNSF traffic moving on the subject lines for a necessary time period that will allow BNSF to establish operations and provide service to meet customer needs.[117]

(86) The part of Pennsylvania that would be affected by the Pennsylvania Intermodal Condition ("Pennsylvania Intermodal Area") is an important location for intermodal traffic: interline intermodal shipments originating or terminating in the affected area generated {{[redacted]}} in revenue in

[113] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[114] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[115] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[116] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[117] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

2023, accounting for {{[redacted]}} of total United States interline intermodal revenue.[118,119] The corridors originating or terminating in the affected area of Pennsylvania are also particularly important to BNSF: in 2023, BNSF's interline intermodal revenue in the area was {{{[redacted]}}}, or {{{[redacted]}}} of BNSF's total interline intermodal revenue (and {{{[redacted]}}} of BNSF's total interline revenue).[120] Further, the Pennsylvania Intermodal Area accounts for {{{[redacted]}}} of BNSF's revenue that is potentially at risk of foreclosure.[121]

(87) The Pennsylvania Intermodal Area is also at material risk of foreclosure. In this area, {{{[redacted]}}} of BNSF's interline intermodal revenue involved NS in 2023, indicating that there are few competitive alternatives to NS in this area.

(88) The Pennsylvania Intermodal Condition would mitigate harm by lowering the probability that BNSF—which accounts for {{{[redacted]}}} of total interline intermodal revenue in the Pennsylvania Intermodal Area—would be foreclosed from serving shippers.[122] This would help preserve competition and benefit shippers.

9.3. BNSF's proposed Gulf Coast Condition would likely mitigate the risk of foreclosure

(89) The Gulf Coast Condition requests that a neutral terminal or switching railroad be established to directly serve UP and BNSF facilities in the Gulf Coast.[123] BNSF requests that the terminal railroad

[118] I approximate the Pennsylvania Intermodal Area using the following geographies: Harrisburg-Carlisle-Lebanon, PA (BEA 11), Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD (BEA 12), Pittsburgh, PA-WV (BEA 53), and the Pennsylvania portion of New York-No. New Jersey-Long Island, NY-NJ-CT-PA-MA-VT (BEA 10). *See* Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII; *see also* Verified Statement of Jon Gabriel, Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket No. 36873 (Sub-No. 33) (Surface Transportation Board 18 November 2026), § 2.

[119] I identify intermodal shipments as those with an AAR equipment code initial of P, Q, S, U, or Z or with an STB service type code of 2. *See* 2024 Waybill Reference Guide; Bailey Statement, n.125.

[120] To examine BNSF's interline intermodal revenue in the Pennsylvania Intermodal Area, I limit to BNSF's revenue from shipments originating or terminating in the area.

[121] I define BNSF traffic that is potentially at risk of foreclosure as BNSF's interline revenue on corridors that are jointly served by UP and NS and at least one other carrier. See Figure 9 for details. To calculate BNSF's at-risk revenue associated with the Pennsylvania Intermodal Area, I limit BNSF traffic that is potentially at risk of foreclosure to intermodal shipments originating or terminating in the Pennsylvania Intermodal Area. For this calculation, I limit my analysis to shipments with two or three legs.

[122] As mentioned earlier in this section, the interline intermodal shipments originating or terminating in the Pennsylvania Intermodal Area generated {{[redacted]}} in revenue in 2023 and BNSF's interline intermodal revenue in this area was {{{[redacted]}}}. {{{[redacted]}}}

[123] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

be jointly owned and managed by UP and BNSF.[124] BNSF also requests neutral dispatching by the terminal railroad through the implementation of nondiscrimination and parity principles for all movements.[125] Finally, BNSF requests that UP coordinate with stakeholders and present a plan for implementing the Gulf Coast Condition to the Board within six months of the effective date of the Board's decision.[126]

(90) The Gulf Coast is an important region for freight rail traffic in the United States. Interline freight revenue in the affected area of the Gulf Coast ("Relevant Gulf Coast Area") totaled {{[redacted]}} in 2023.[127,128] This amount represents {{[redacted]}} of total United States interline freight rail revenue in 2023. Corridors originating or terminating in the Relevant Gulf Coast Area also account for a material share of BNSF's revenue: in 2023, BNSF's interline revenue in the Relevant Gulf Coast Area was almost {{{[redacted]}}}, which is {{{[redacted]}}} of BNSF's total interline revenue.[129] Further, the Relevant Gulf Coast Area accounts for {{{[redacted]}}} of BNSF's revenue that is potentially at risk of foreclosure.[130]

(91) The Relevant Gulf Coast Area is also at material risk of foreclosure. Rival carriers frequently rely on UP for shipments that originate or terminate in the Relevant Gulf Coast Area: in 2023, shipments involving UP accounted for {{{[redacted]}}} of CSXT's interline freight revenue {{{([redacted]}}} in the Relevant Gulf Coast Area.[131] Further, in the Relevant Gulf Coast Area, {{{[redacted]}}} stations were only served by UP in 2023. These stations constitute {{{[redacted]}}} of the total

[124] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[125] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[126] Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873 (18 November 2026), § VII.

[127] The Relevant Gulf Coast Area is comprised of the following geographies: Corpus Christi, TX (BEA 132); Houston-Galveston-Brazoria, TX (BEA 131); Beaumont-Port Arthur, TX (BEA 87); Lake Charles, LA (BEA 86); Lafayette, LA (BEA 85); Baton Rouge, LA-MS (BEA 84); and New Orleans, LA-MS (BEA 83). *See* Verified Statement of Tom Williams, Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket No. 36873 (Surface Transportation Board 18 November 2026), ¶ 96; *see also* 2024 Waybill Reference Guide, 84. I follow Dr. Bailey's and Dr. Israel's approach to identify a corridor based on BEA pairs. *See* n. 38.

[128] I define interline shipments as shipments with two or more carriers unless otherwise indicated. Correspondingly, I define interline revenue as revenue generated by interline shipments.

[129] To examine BNSF's interline revenue in the Relevant Gulf Coast Area, I limit to BNSF's revenue from shipments originating or terminating in the area.

[130] I define BNSF traffic that is potentially at risk of foreclosure as BNSF's interline revenue on corridors that are jointly served by UP and NS and at least one other carrier. See Figure 9 for details. To calculate BNSF's at-risk revenue associated with the Relevant Gulf Coast Area, I limit BNSF traffic that is potentially at risk of foreclosure to shipments originating or terminating in the Relevant Gulf Coast Area. For this calculation, I limit my analysis to shipments with two or three legs.

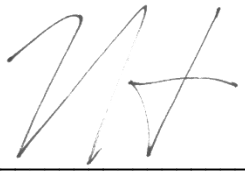
[131] I consider a shipment to involve UP if UP carries the shipment on at least one leg.

number of stations in the area and {{{[redacted]}}} of the revenue. The proposed merger will likely give UP greater bargaining leverage over shippers who use UP-only stations and NS for another leg of their routes.

(92) The Gulf Coast Condition would mitigate harm by allowing BNSF and other carriers to continue serving shippers in the Relevant Gulf Coast Area with a lower likelihood of foreclosure by the merged firm. This would help preserve pre-merger competition and benefit shippers.

VERIFICATION

I, Nicholas Hill, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this Verified Statement.



Nicholas Hill

Executed: 18 November 2026

Appendix A. Curriculum vitae of Nicholas Hill

A.1. Summary of experience

Nicholas Hill has served as an economic expert for private clients, the Department of Justice, and the Federal Trade Commission. He has testified in federal court and the Federal Trade Commission's administrative court. He developed the capacity closure model, which is often used to analyze mergers in commodity industries. Prior to joining Bates White, Dr. Hill served as assistant section chief in the Economic Analysis Group of the Department of Justice's Antitrust Division, where he received the US Attorney General's Award for Distinguished Service and was an economist in the Bureau of Economics at the Federal Trade Commission. Dr. Hill has been named to the Who's Who Legal list of Competition Economists since 2020 and has been recognized as a Global Elite Competition Thought Leader since 2022.

A.2. Education

- PhD, Economics, Johns Hopkins University
- MSc, Quantitative Development Economics, University of Warwick
- BA, Economics and International Studies, University of Warwick

A.3. Professional experience

- Bates White Economic Consulting, Washington, DC
  - Partner, 2018–present
  - Principal, 2017–2018
- Department of Justice
  - Assistant Section Chief, Antitrust Division, 2014–2017
  - Economist, Antitrust Division, 2006–2013
- Federal Trade Commission, Economist, Bureau of Economics, 2013–2014
- Johns Hopkins University, Visiting Professor, Fall 2007
  - Microeconomic Theory I

A.4. Testimony, declarations, and expert reports

- *Broadcast Music, Inc. v. Sirius XM Radio LLC F/K/A Sirius XM Radio Inc.*
  - 1:24-cv-06896 (S.D.N.Y. 12 September 2024): Expert report and testimony, 2026.
- *United States of America v. Live Nation Entertainment, Inc.*
  - 1:24-cv-03973 (S.D.N.Y. 23 May 2024): Testimony, 2026; Expert report, 2025.
- *United States v. Hewlett Packard Enterprise Co. and Juniper Networks Inc.*
  - 55:25-cv-00951 (N.D. Cal. Jan 30, 2025): Testimony, expert report, and declaration, 2025 and 2026.
- *Federal Trade Commission et al. v. Syngenta Crop Protection AG et al.*
  - 1:22-cv-00828 (M.D.N.C. 29 September 2022): Testimony and expert report, 2025.
- *Approved Oil Co. of Brooklyn, Inc. v. Sprague HP Holdings LLC*
  - 1:25-cv-00242 (E.D.N.Y. Jan. 15, 2025): Declaration, 2025.
- *Federal Trade Commission et al. v. The Kroger Company and Albertsons Companies, Inc.*
  - 3:24-cv-00347 (D. Or. Dec. 10, 2024): Testimony and expert report, 2024.
- *Henry, et al. v. Brown University, et al.*
  - 1:22-cv-00125 (N.D. Ill. Feb. 6, 2023): Testimony and expert report, 2024 and 2025.
- *United States et al. v. JetBlue Airways Corp. and Spirit Airlines, Inc*.
  - 1:23-cv-10511 (D. Mass. Mar. 7, 2023): Testimony and expert report, 2023.
- *Garavanian et al. v. JetBlue Airways Corp. and Spirit Airlines, Inc*.
  - 1:23-cv-10678 (D. Mass. Mar. 29, 2023): Testimony and expert report, 2023.
- *In re Broiler Chicken Antitrust Litigation*
  - 1:16-cv-08637 (N.D. Ill. Feb. 16, 2022). Testimony and expert report, 2023 and 2026.
- *United States v. Bertelsmann SE* (Penguin Random House-Simon & Schuster case)
  - 1:21-cv-02886 (D.D.C. Nov. 2, 2021). Testimony and expert report, 2022.
- *United States v. U.S. Sugar Corp. et al*.
  - 1:21-cv-01644 (D. Del. Nov. 23, 2021). Testimony and expert report, 2022.
- *Federal Trade Commission v. Peabody Energy Corp. et al.*
  - 4:20-cv-00317 (E.D.Mo. Feb. 26, 2020). Testimony and expert report, 2020.
- *Federal Trade Commission v. RAG-Stiftung et al.* (Evonik-PeroxyChem case)
  - 1:19-cv-02337 (D.D.C. Jan. 24, 2020): Testimony and expert report, 2019.

- *Federal Trade Commission v. Tronox Limited et al.*
  - 1:18-cv-01622 (D.D.C. Sept. 12, 2018): Testimony and expert report, 2018.
  - FTC Matter/File No. 171 0085, Docket 9377: Testimony, 2018.
- US Department of Justice, Antitrust Division. Newspaper matter. Expert witness, 2017.
- Federal Trade Commission. Jewelry industry matter. Expert witness, 2014.
- *United States v. Abitibi Consolidated, Inc.*
  - 1:07-cv-01912 (D.D.C. Aug. 8, 2008): Declaration, 2008.

A.5. Publications

- "The SPRB Coal Cases, Market Definition, and Analytical Durability." (With Christian Salas, Aparna Sengupta, and Arthur Zhou). *Antitrust Magazine Online* (February 2022).
- "Heterogeneous Effects of Consolidation on Premiums in Medicare Part D." (With Mathis Wagner). *Journal of Health Economics* (December 2021).
- "Supply Substitution and Market Definition: Lessons from *FTC v. RAG-Stiftung*." (With Randy Chugh and Andrew J. Ewalt). *Antitrust Source* (October 2020).
- "Updating Retail Bank Merger Review for the Internet Age." (With Mark Botti, Sheridan Rogers, and Mathis Wagner) *Antitrust Magazine* 34, no. 2 (2020).
- "Race and Employment Outcomes: Evidence from NBA Coaches." (With Marc Remer) *Economic Inquiry* (March 2020).
- "Four Key Aspects of the Tronox/Cristal Litigation." (With Dom Vote and Nathan Wilson) *Antitrust Source* (October 2019).
  - Nominated for Best Business Article, Mergers category, 2020 Antitrust Writing Awards.
- "Is 5-to-4 the New 4-to-3? A View from the United States." (With Keith Waehrer) *Competition Law and Policy Debate* 5, no. 2 (2019): 50–54.
- "Aetna-Humana and Algorithmic Market Definition in the Guidelines." (With Kostis Hatzitaskos and Brad T. Howells) *Antitrust Source* (October 2017).
  - Nominated for Best Business Article, Mergers category, 2018 Antitrust Writing Awards.
- "Economics at the Antitrust Division 2014–2015. Comcast/Time Warner Cable and Applied Materials/Tokyo Electron." (With Nancy Rose and Tor Winston) *Review of Industrial Organization* 47 (2015): 425–35.

- "The Year in Review: Economics at the Antitrust Division, 2007–2008." (With Ken Heyer) *Review of Industrial Organization* 33 (2008): 247–62.
- "Analyzing Mergers Using Capacity Closures." EAG Discussion Paper Series 08-8 (2008). Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1262317.

A.6. Recent presentations and panels

- The Antitrust Rewind podcast, Host
  - "Turbulent Skies: The JetBlue–Spirit Merger," September 28, 2026.
- "Technology Mergers in the Trump Administration," Antitrust Tech Summit, October 15, 2026.
- "Antitrust Update—Clear Skies Ahead?" Panelist, 2026 Forum on Air and Space Law Annual Meeting, September 17, 2026.
- "Clear Skies?" Panelist, ABA Antitrust Law Spring Meeting, March 25, 2026.
- "Economists and Enforcement Priorities," Global Antitrust Update, McDermott Will & Schulte webinar, January 20, 2026.
- "Building Effective Expert Testimony," Panelist, 2025 ABA Antitrust Law Spring Meeting, April 3, 2025.
- "Looking Back, Looking Ahead: Reflections on Biden-Era Antitrust Enforcement and Predictions for the New Administration," Panelist, New York State Bar Association Annual Meeting, January 16, 2025.
- "Pricing in the Airline Industry," Panelist, DLA Piper podcast, June 7, 2024.
- "Assessing the Biden Administration's Antitrust Agenda: Looking Backward, Looking Forward," Panelist, Fifth Annual Antitrust and Tech Conference, December 12, 2023.
- "US Merger Guidelines: A Comprehensive Look at the Draft," Panelist, Concurrences webinar, October 18, 2023.
- "Merger Litigation under the New Guidelines," Panelist, American Bar Association Antitrust Section workshop "The New Merger Guidelines Workshop: Evolution or Revolution?" September 6, 2023.
- "What You Need to Know about the Revised Merger Guidelines." Panelist, webinar, July 26, 2023.
- "The Role of Experts and Economic Analysis in Antitrust Cases." Panelist, 2023 Antitrust Law & Economics Institute for Federal Judges, May 9, 2023.

- Presentation on *United States v. Bertelsmann SE* (Penguin Random House-Simon & Schuster case) to Harvard Law School Antitrust Association, April 14, 2023.
- "Mergers: Return of Monopsony as an Antitrust Concern." Panelist, GCR Live: Law Leaders Global, February 2, 2023.
- "Merger Enforcement." Panelist, Georgetown Law Global Antitrust Enforcement Symposium, September 14, 2021.
- "Dissecting the *FTC v. Peabody/Arch Coal* Merger Challenge." Panelist, ABA webinar, November 20, 2020.
- "Fundamentals of Economics," Panelist, 2019 ABA Antitrust Law Spring Meeting, March 27, 2019.
- "Effective Engagement: Working with the Government." Panelist, 2018 ABA Antitrust Law Spring Meeting, April 12, 2018.
- "Antitrust and the Payer-Provider Relationship: Do I Need to Care about This?" Panelist, American Health Lawyers Association webcast, October 26, 2017.
- "Natural Experiments in Merger Analysis." Hal White Antitrust Conference, June 2016.
- "Fundamentals of Economics." Panelist, ABA Spring Meeting, Section of Antitrust Law, April 2016.
- "Economic Issues Raised in the Comcast-Time Warner Cable Merger." Panelist, ABA Section of Antitrust Law, February 2016.
- "Mergers that Enhance Purchasing Clout—Current Thinking on Monopsony and Bargaining Power." Capitol Forum Future of Broadband Conference, 2015.
- "The Economics of Efficiencies." Antitrust Economics for Young (and Old) Lawyers, FCLI, 2015.
- Hoover IP Squared Conference. Discussant, 2015.
- "US Antitrust Law Fundamentals for Chinese Practitioners Series: Basic Economics for Antitrust Lawyers." Panelist, ABA, 2013.
- Panelist, Fordham Competition Law Institute Course for Agency Economists, 2012.
- Joint DOJ-FTC Data Usage Workshop, 2011.
- DOJ Merger Guidelines Market Definition Training, 2011.
- DOJ-EU-FTC Antitrust Workshop, 2011.

A.7. Honors and awards

- *Who's Who Legal* Competition Economist, 2020–present
- Thought Leader in Competition, 2021–present
- American Antitrust Institute, 2026 Outstanding Antitrust Litigation Achievement in Economics: *United States of America et al. v. Live Nation Entertainment, Inc., and Ticketmaster L.L.C.*
- Global Elite Thought Leader in Competition, 2022
- Lexology Client Choice Award, Competition Economists in the United States, 2021
- GCR Economist of the Year (short listed), 2020, 2023
- US Attorney General's Award for Distinguished Service, 2017, Aetna–Humana
- Antitrust Division Award of Distinction, 2016, United–Delta Newark Slots
- Antitrust Division Award of Distinction, 2016, Halliburton–Baker Hughes
- Antitrust Division Award of Distinction, 2015, Comcast–Time Warner Cable
- FTC Certificate of Appreciation, 2014, Expert Witness on jewelry industry matter
- Best work by an EAG Staff Economist, Department of Justice: Written work, 2009–2010
- Best support by an EAG Staff Economist, Department of Justice: Litigation, 2008–2009
- Best work by an EAG Staff Economist, Department of Justice: Theory, 2007–2008

Appendix B. Materials relied upon

B.1. Data

B.1.a Highly confidential – Contains STB Waybill

- Bailey Combined Waybill data 2019–2024.
  - waybill_wide_stack_revenue_flag_2019_2024_allcols.parquet.

B.1.b Highly confidential

- Dr. Israel's SPLC to BEA translation.
  - SPLC_BEA.xlsx.

B.1.c Publicly available

- Burlington Northern Santa Fe. Surface Transportation Board Annual Freight Commodity Statistics (Form FCS), 2025. https://www.stb.gov/reports-data/economic-data/freight-commodity-statistics/, STB_FCS_PUBLIC_BNSF_2025_202608190949.xlsx.
- Burlington Northern Santa Fe. Surface Transportation Board Annual Report of Finances and Operations (Form R-1), 2025. https://www.stb.gov/reports-data/economic-data/annual-report-financial-data/, R1-BNSF-2025-REV-SCHEDULES-10-23-2026.xlsx.
- Canadian Pacific Kansas City. Surface Transportation Board Annual Freight Commodity Statistics (Form FCS), 2025. https://www.stb.gov/reports-data/economic-data/freight-commodity-statistics/, STB_FCS_PUBLIC_CPKC_2025_202608190949.xlsx.
- CSX Transportation. Surface Transportation Board Annual Freight Commodity Statistics (Form FCS), 2025. https://www.stb.gov/reports-data/economic-data/freight-commodity-statistics/, STB_FCS_PUBLIC_CSX_2025_202608190949.xlsx.
- CSX Transportation. Surface Transportation Board Annual Report of Finances and Operations (Form R-1), 2025. https://www.stb.gov/reports-data/economic-data/annual-report-financial-data, 2025 Sch 210 Final - CSX.xlsx; 2025 Sch 755 Final - CSX.xlsx.
- Grand Trunk Corporation (Canadian National). Surface Transportation Board Annual Freight Commodity Statistics (Form FCS), 2025. https://www.stb.gov/reports-data/economic-data/freight-commodity-statistics/, STB_FCS_PUBLIC_GTC_2025_202609240600.xlsx.

- Grand Trunk Corporation (Canadian National). Surface Transportation Board Annual Report of Finances and Operations (Form R-1), 2025. https://www.stb.gov/reports-data/economic-data/annual-report-financial-data, R1-GTC-2025.xlsx.
- Norfolk Southern. Surface Transportation Board Annual Freight Commodity Statistics (Form FCS), 2025. https://www.stb.gov/reports-data/economic-data/freight-commodity-statistics/, STB_FCS_PUBLIC_NS_2025_202608190949.xlsx.
- Norfolk Southern. Surface Transportation Board Annual Report of Finances and Operations (Form R-1), 2025. https://www.stb.gov/reports-data/economic-data/annual-report-financial-data/, R1-NS-2025.xlsx.
- Soo-Kansas City (Canadian Pacific Kansas City). Surface Transportation Board Annual Report of Finances and Operations (Form R-1), 2025. https://www.stb.gov/reports-data/economic-data/annual-report-financial-data, R1-SOO-KCSR-2025-REV-SCHEDULES-5-29-2026.xlsx.
- Union Pacific. Surface Transportation Board Annual Freight Commodity Statistics (Form FCS), 2025. https://www.stb.gov/reports-data/economic-data/freight-commodity-statistics/, STB_FCS_PUBLIC_UP_2025_202608190949.xlsx.
- Union Pacific. Surface Transportation Board Annual Report of Finances and Operations (Form R-1), 2025. https://www.stb.gov/reports-data/economic-data/annual-report-financial-data, 2025 Sch 210 Final - UP.xlsx; 2025 Sch 755 Final - UP.xlsx.

B.2. Bates number

- NS_00119544.
- NS_00127871.
- NS_00793474.
- UP_0200674.
- UP_0683104.
- UP_1001744.
- UP_2140108.
- UP_2293404.
- UP_2304230.

B.3. Case materials

- Deposition of Mark A. Israel, 15 October 2026.
- Joint Shipper Associations Motion for Summary Denial, Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket No. 36873 (Surface Transportation Board 6 August 2026).
- Letter from United Sugar Producers & Refiners re: STB Docket No. FD 36873, Union Pacific Corp., et al.—Control—Norfolk Southern Corp. at *(sic)* al., 26 August 2026.
- Surface Transportation Board. Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket no. 36873, 2026-10751 (91 FR 32174), 29 May 2026.
- Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, BNSF Railway Company's Comments, Finance Docket No. 36873, 18 November 2026.
- Verified Statement of Elizabeth M. Bailey, Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket No. 36873 (Surface Transportation Board 4 September 2026).
- Verified Statement of Jon Gabriel, Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket No. 36873 (Sub-No. 33) (Surface Transportation Board 18 November 2026).
- Verified Statement of Mark A. Israel, Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket No. 36873 (Surface Transportation Board 4 September 2026).
- Verified Statement of Tom Williams, Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company, Finance Docket No. 36873 (Surface Transportation Board 18 November 2026).

B.4. Legal

- Opening Comments of the National Grain and Feed Association, Canadian Pacific Railway Limited—Control—Kansas City Southern, Finance Docket No. 36500 (Surface Transportation Board 28 February 2022).
- Surface Transportation Board Decision, Canadian Pacific Railway Limited—Control—Kansas City Southern, Finance Docket No. 36500 (Surface Transportation Board 15 March 2023).

- Union Pacific's Comments and Requests for Condition, Canadian Pacific Railway Limited—Control—Kansas City Southern, Finance Docket No. 36500 (Surface Transportation Board 28 February 2022).
- Verified Statement of Steven C. Salop, Canadian Pacific Railway Limited—Control—Kansas City Southern, Finance Docket No. 36500 (Surface Transportation Board 27 February 2022).
- Verified Statement of Kenny Rocker and John Turner, Canadian Pacific Railway Limited—Control—Kansas City Southern, Finance Docket No. 36500 (Surface Transportation Board 27 February 2022).

B.5. Literature and publications

- Armstrong, Mark, and Robert H. Porter, editors. *Handbook of Industrial Organization*, 3. Amsterdam: Elsevier, 2007.
- Belleflamme, Paul, and Martin Peitz. *Industrial Organization*, 2nd edition. Cambridge, UK: Cambridge University Press, 2015.
- Collins, Wayne Dale, editor. *Issues in Competition Law and Policy.* Chicago: ABA Book Publishing, 2008.
- Gray, Charles, Abby Alpert, and Neeraj Sood. "Disadvantaging Rivals: Vertical Integration in the Pharmaceutical Market." *American Economic Journal: Applied Economics* 18, no. 1 (2026): 286–304.
- Ho, Kate, Ali Hortaçsu, and Alessandro Lizzeri, editors. *Handbook of Industrial Organization*, 4, no. 1. Amsterdam: Elsevier, 2021.
- Hoffman, D. Bruce. "Vertical Merger Enforcement at the FTC." Remarks at Credit Suisse 2018 Washington Perspectives Conference, Washington, D.C., 10 January 2018.
- Krattenmaker, Thomas, and Steven Salop. "Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price." *Yale Law Journal* 96, no. 2 (December 1986): 209–293.
- McBride, Michael F. "The Future of Rail Mergers in North America - The View of the Shippers." *Journal of Transportation Law, Logistics and Policy* 68, no. 2 (2001): 129–138.
- Nicholson, Walter, and Christopher Snyder. *Intermediate Microeconomics and Its Application*, 13th edition. Boston, MA: Cengage Learning, 2022.
- Nicholson, Walter, and Christopher Snyder. *Microeconomic Theory: Basic Principles and Extensions*, 13th edition. Mason, OH: Cengage Learning, 2026.
- Pindyck, Robert S., and Daniel L. Rubinfeld. *Microeconomics*. 9th edition. Pearson Global Edition, 2018.

- Pittman, Russell. "Three Economist's Tools for Antitrust and Merger Analysis: Case Applications." Economic Analysis Group Discussion Paper, Washington, D.C., June 2021.
- Salop, Steven C. "Invigorating Vertical Merger Enforcement." *Yale Law Journal* 127, no. 1 (May 2018): 1962–1994.
- Salop, Steven C., and Daniel P. Culley. "Potential Competitive Effects of Vertical Mergers: A How-To Guide for Practitioners." Georgetown Law Faculty Publications and Other Works 1392, Georgetown University Law Center, Washington, D.C., 2014. https://scholarship.law.georgetown.edu/cgi/viewcontent.cgi?article=2404&context=facpub.
- Salop, Steven C., and David T. Scheffman. "Raising Rivals' Costs." *American Economic Review* 73, no. 2 (May 1983): 267–271.
- Shapiro, Carl M. "Vertical Mergers and Input Foreclosure Lessons from the AT&T/Time Warner Case." *Review of Industrial Organization* 59 (2021): 303–341.

B.6. Publicly available materials

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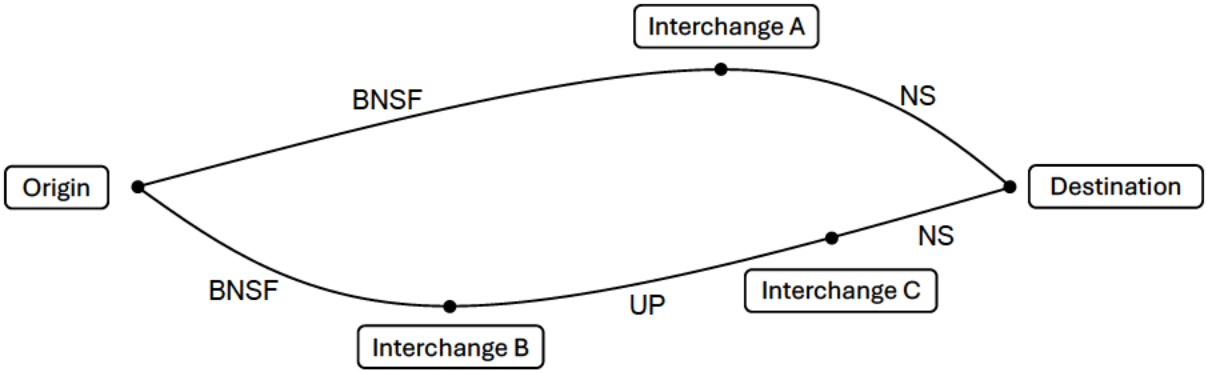
Appendix C. The merger may increase the risk of short hauling

(93) Shippers have raised a concern that the merged firm may extend certain interline routes further into eastern markets from UP locations or further into western markets from NS locations.[132] That is, for some interline routes involving CSXT or BNSF destinations, the interchange location may be moved to benefit the merged firm, thereby decreasing the proportion of the route operated by BNSF or CSXT.[133] Such an outcome would reduce the revenues of BNSF and CSXT while requiring them to continue bearing the same network fixed costs. This would likely result in a higher average cost per mile of service for BNSF and CSXT.[134]

(94) Figure 12 depicts a scenario in which the combined UP/NS would have an incentive to short haul BNSF on an interline movement. Prior to the merger, BNSF moves the traffic from Origin to Interchange A and NS moves the traffic from Interchange A to the destination. After the merger, the merged firm may have an incentive to divert the traffic to a different route, one on which BNSF hands off the traffic to UP at Interchange B, UP transports the traffic to Interchange C, and NS carries the traffic to the final destination. Before the merger, both BNSF and NS would prefer the first route because their segments are longer. The merged firm, however, would prefer the second route, thereby short hauling BNSF.

Figure 12. Example of an incentive to short haul rivals



(95) This negative impact on BNSF and CSXT could be self-reinforcing: as interline traffic diverts to the merged firm, the average costs of BNSF and CSXT may increase. If so, this increase in average costs could drive more traffic to divert to the merged firm, further weakening BNSF and CSXT.[135]

---

[132] *See* Joint Shipper Associations' Motion for Summary Denial, 6 August 2026, 27–30 and Figure 1. In particular, the NS and CSXT networks almost entirely overlap, allowing UP/NS to short haul CSXT on most of its interline routes. UP/NS could also short haul BNSF on interline routes from pre-merger NS origins to BNSF destinations, although the overlap between UP and BNSF networks is less extensive.

[133] *See* Joint Shipper Associations' Motion for Summary Denial, 6 August 2026, 31.

[134] *See* Joint Shipper Associations' Motion for Summary Denial, 6 August 2026, 31.

[135] *See* Joint Shipper Associations' Motion for Summary Denial, 6 August 2026, 32.

Appendix D. Additional CP/KCS merger retrospective figures

Figure 13. Annual interline Chicago-to-Mexico carloads carried by KCS, 2021–2024

{{{



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Figure 14. Annual interline Chicago-to-Mexico carloads carried by BNSF, 2021–2024

{{{



}}}

Figure 15. Annual interline Chicago-to-Mexico carloads carried by UP, 2021–2024

{{{



}}}

Figure 16. Annual interline Chicago-to-Mexico carloads carried by KCS or FXE, 2021–2024

{{{



}}}

BEFORE THE
SURFACE TRANSPORTATION BOARD

DOCKET NO. FD 36873

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY

—CONTROL—

NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY

Verified Statement of Nathaniel S. Zebrowski and Michael R. Baranowski

November 18, 2026

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1. INTRODUCTION

1. This report is jointly submitted by Nathaniel S. Zebrowski and Michael R. Baranowski of FTI Consulting, Inc ("FTI").

2. Mr. Zebrowski is a Senior Managing Director of FTI's Network Industries Strategies practice. He has over fifteen years of experience analyzing freight transportation markets and railroad operations, including developing numerous evidentiary submissions to the STB, federal courts, and arbitration panels. Details of Mr. Zebrowski's background and qualifications are set forth in Exhibit 1 to this Verified Statement.

3. Mr. Baranowski is a Senior Managing Director and leader of FTI's Network Industries Strategies practice. He has over forty years of experience in the railroad industry including submitting testimony in numerous matters before the Surface Transportation Board ("STB"), federal courts, and arbitration panels. Details of Mr. Baranowski's background and qualifications are set forth in Exhibit 2 to this Verified Statement.

4. BNSF Railway Company ("BNSF") has asked us to evaluate and respond to various aspects of the proposed merger between Union Pacific Railroad ("UP") and Norfolk Southern Railroad ("NS"). We were asked to:

- Address the traffic effects of the proposed merger and review the traffic study submitted on UP/NS's behalf by Oliver Wyman (Mr. David Hunt), including potential effects of proposed Committed Gateway Pricing ("CGP") and open gateway conditions;
- Evaluate UP/NS's Operating Plan and Service Assurance Plan;
- Identify potential regulatory disruptions and financial consequences of the proposed merger;
- Summarize characteristics of rail traffic moving into and out of the Gulf Coast region; and
- Evaluate 2-to-1 and 3-to-2 station access provisions in the CN Settlement Agreement.

This report describes our review, analysis and conclusions regarding each of these items.

2. EXECUTIVE SUMMARY

5. Based on our analysis and review, we have reached the following conclusions.

- **Part I.** The merger would reduce four competitive transcontinental routes to one dominant UP/NS route, without producing the truck diversions or shipper savings UP/NS claims.
    - UP/NS's estimated 2.1 million truck diversions will not occur. At most, there are market opportunities for 229,330 truck diversions, none of which are merger-specific, and shippers will realize effectively none of UP/NS's claimed $3.5 billion in savings.
    - The merger would shift substantial existing rail traffic onto UP/NS routes, both at the lane level and through geographic changes in traffic patterns that UP/NS did not analyze. The four transcontinental routes that carry roughly equal shares of east-west traffic today would become one dominant UP/NS route and three much lower-volume routes.
    - UP/NS's proposed open gateway and CGP conditions would not change this outcome or preserve the existing transcontinental routes.
- **Part II.** UP/NS's claimed service benefits are achievable through interline service today, and the Operating Plan is incapable of supporting the Service Assurance Plan:
    - UP/NS's claimed service improvements—faster transit times and deeper blocking—are already routinely achieved through interline service. Continued interline coordination can therefore achieve many of the operational goals UP/NS seeks through the merger.
    - UP/NS's Operating Plan makes only limited changes to existing train operations and most east-west freight will continue to funnel through the existing gateways, including to make stops and change trains, except that UP/NS will now control over {{ [redacted] }} of all rail activity at those gateways.
    - UP/NS's Operating Plan suffers from major deficiencies that undermine the validity of the Service Assurance Plan, including failing to account for daily or seasonal volume fluctuations at yards, overlooking and mis-mapping block assignments, and failing to model service for most predicted growth carloads.
- **Part III.** The merger would remove substantial traffic from rate reasonableness review and expose NS shippers to UP's higher pricing:

- If UP and NS URCS costs are combined following the merger, approximately {{ $[redacted] }} of UP revenues will fall below the 180% R/VC jurisdictional threshold and no longer be subject to rate reasonableness review.

- UP will be able to apply its higher pricing model to NS's business, which is especially likely if truck diversions fail to materialize and investors pressure UP/NS to recover the costs of the transaction.

- **Part IV.** The merger would leave most rail-dependent Gulf Coast customers captive to a single railroad, and CN access would not replace the lost competition.
  - The Gulf Coast has one of the highest concentrations of customers dependent on rail service anywhere in the country, the majority of whom would be beholden to a single rail option if the merger were approved without conditions.

  - CN access to the 3-to-2 and 2-to-1 stations is not a sufficient replacement for the competition that would be lost.

PART I – THE MERGER WOULD REDUCE FOUR TRANSCONTINENTAL ROUTES TO ONE DOMINANT UP/NS ROUTE WITHOUT THE CLAIMED TRUCK DIVERSIONS.

6. UP/NS's traffic study rests on greatly overstated truck diversions. It also understates rail-to-rail diversions and ignores the changes in traffic patterns and geographic shifts likely to occur if the proposed merger is approved. We expect two primary traffic effects: first, a re-alignment of existing east-west interline freight flows that would reduce four major transcontinental railroad routes to one dominant UP/NS route; and second, major geographic shifts in origin sources and destination markets that would allow UP/NS to move more freight within its own network. The open gateway and CGP conditions UP/NS proposes would not preserve interline service through the gateways. Even conditions that kept the gateways fully open would not prevent these traffic effects.

3. TODAY'S FOUR TRANSCONTINENTAL ROUTES GIVE SHIPPERS CHOICES THAT THE PROPOSED MERGER WOULD ELIMINATE.

7. The proposed merger will affect traffic moving between the two largest eastern railroads and the two largest western railroads. This interline traffic primarily moves on lanes that BNSF and/or UP can serve on the western end and NS and/or CSX can serve on the eastern end. Although it represents only {{ [redacted] }} of all U.S. rail shipments, nearly all rail shippers rely on interline services for some portion of their transportation needs. Today, each of the big four Class I railroads provides in-network service within the larger local markets of either the eastern or western United States, while shippers can choose among railroads for east-west movements. This means that a shipper can concentrate most of its volume on a single railroad's network, while retaining a choice of rail networks for the smaller share that crosses the Mississippi River. The infrastructure and operations at east-west gateways[2] effectively support four major transcontinental routes—BNSF-NS, UP-NS, BNSF-CSX, and UP-CSX—whose market shares are similar to those achieved within the East or West on otherwise comparable lanes. As the chart below shows, each of these routes carries a similar share of total east-west traffic.

[1] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3.2 Figures and Tables."

[2] A gateway interchange refers to a principal interchange location—primarily Chicago, St. Louis, Kansas City, Memphis, and New Orleans—where eastern and western railroads exchange traffic.

Figure 1[3]{{



}}

7. As explained below, the proposed merger would eliminate the competitive choices presently available to shippers.

3.1. Most interline volumes have grown faster than single-line volumes.

8. UP/NS frames the proposed merger as a solution to rail growth lagging behind trucking growth,[4] but interline services are not responsible for this outcome. UP/NS's analysis presents long-term trends showing declining rail share without distinguishing single-line from interline traffic.[5] Separating the two shows that, excluding coal, volumes are growing and interline has outpaced single-line. As the figure below shows, since the Great Recession in 2009, non-coal single-line volumes have increased [redacted] and non-coal interline volumes have increased [redacted].

---

[3] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3-3.1 Figures."

[4] *See* Verified Statement of Mark George (Sept. 4, 2026) on pages 13-16 and Verified Statement of Kenny Rocker and Claude E. Elkins (Sept. 4, 2026) on pages 18-21.

[5] Ibid.

Figure 2[6]{{



}}

9. Consistent with this observation, the lack of shipper support for the proposed merger shows that shippers do not perceive a problem with existing east-west interline services. We estimated that shippers accounting for approximately {{ }} of all U.S. rail freight tons have expressed support for the proposed merger, while shippers accounting for at least {{ }} have expressed opposition.[7] These figures are calculated based on consolidated 2023 Class I traffic

[6] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3-3.1 Figures." We used data from the Surface Transportation Board Quarterly Commodity Statistics (Form QCS) from 2009-2023, for the seven Class I railroads (BNSF, CSX, CN's US operations, KCS, NS, CP's Soo Line, and UP). Single-line volumes are carload tons originated and terminated on the reporting railroad; interline volumes are carload tons originated and delivered to a connecting carrier. Coal (STCC 11) is excluded.

[7] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3-3.1 Figures."

tape data, support statements included in UP/NS's application, and opposition expressed in public filings to the STB.[8]

3.2. Most rail shippers depend on east-west interline service for at least part of their business.

10. East-west interline traffic is a relatively small share of all U.S. freight rail traffic: only {{ [redacted] }} of {{ [redacted] }} million merchandise/bulk carloads, {{ [redacted] }} of {{ [redacted] }} million intermodal units, and {{ [redacted] }} of {{ [redacted] }} million automobile units. The following three charts summarize how east-west interline traffic fits into overall freight rail flows in the United States. Based on 2023 traffic tape data, we assign all freight rail shipments that originate or terminate in the United States into the following categories: (1) east-west interline moves on lanes with route options on at least one of the four major transcontinental routes; (2) moves within the territory of western rail systems; (3) moves within the territory of eastern rail systems; (4) other east-west interline moves; and (5) cross-border moves.[9]

---

[8] We start with the consolidated Class I traffic tape data provided by UP/NS in the amended Application and add supplemental customer information from the raw traffic tape records. Based on support statements in UP/NS's amended application and publicly filed statements in the STB's merger docket, we compiled names of individual companies expressing support or opposition to the proposed merger, whether directly or through trade organizations to which they belong. We then matched the list of individual companies against shipper and receiver information in the traffic tapes using name-match algorithms. *See* Zebrowski/Baranowski Workpaper "R Script to Generate UPNS Support and Opposition.R."

[9] To minimize difference, we use UP/NS's Class I traffic tape data, supplemented with individual facility service information based on matching customer name and station information with SCRS records. Categories are assigned in the order listed above, e.g., if a move travels on a CSX-UP-FXE route it is placed in bucket (1) rather than bucket (5).

Figure 3[10]{{



}}

11. Facilities generating the bulk of rail traffic in the United States actively weigh options to use east-west interline routes, even if often the freight they generate moves on lanes within the eastern or western United States. As the table below shows, most of the facilities which generate carload rail freight move at least some portion of their traffic in east-west interline service.

Table 1[11]{{



}}

12. This table shows that {{ }} of carload rail traffic moves at facilities that move traffic via east-west interline routes—for example, from a rail facility in the western United States

[10] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3.2 Figures and Tables."

[11] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3.2 Figures and Tables."

to one in the eastern United States, or vice versa. As a result, the proposed merger will affect the route options and freight services available to a {{{ [redacted] }}} of U.S. rail shippers.

13. Beyond the individual facility level impact, the proposed merger will reduce east-west interline routing flexibility in {{ [redacted] }} of individual commodity markets. {{ [redacted] }} commodities shipping by rail rely at some level – either as part of the normal course of business or when mitigating circumstances require – on east-west interline services to diversify their supply chains. Individual commodities range from flour, to plywood, to rubber tires, to name a few.[12] For example, rubber tire producers in the western United States mostly ship rubber tires by rail to consumer markets in the west, and rubber tire producers in the eastern United States mostly ship rubber tires by rail to consumer markets in the east. Sometimes, however, producers in the west will use railroad transportation to ship rubber tires to consumer markets in the east (for instance, due to a temporary supply shortage or production challenge in the east). The proposed merger will affect shipper options and flexibility in these and other circumstances. The below chart shows that {{ [redacted] }} of carloads moved by Class I carriers carry individual commodities at the four-digit STCC level that use east-west interline services at least 5% of the time.[13]

[12] General commodity groups shipped by rail include items such as grain, chemicals, coal, lumber, steel, and many other types of goods. Under the Standard Transportation Commodity Code ("STCC") system, which is used for rail shipments in North America, the most general commodity groups are reported at the two-digit level (e.g., STCC 20 is food products), further subcategories are reported between the three- to seven-digit level (e.g., STCC 203 is canned fruits and vegetables) and the most specific commodity groups are reported at the seven-digit level (e.g., STCC 2033625 is tomato sauce). Consistent with UP/NS's rail-to-rail diversion and truck-to-rail diversion work, as well as market share analysis, we use 4-digit STCC for the majority of our analysis, which is the most granular level of commodity information provided in Transearch data.

[13] We require 5 percent of total rail shipments of a given commodity to use east-west interline routes to ensure there is a non-trivial amount of traffic using such routes, which reflects legitimate commodity market interactions rather than extremely rare outlier cases.

Table 2[14]{{



}}

14. Similarly, {{ }} intermodal channel partners and expedited parcel shippers use east-west interline routes among other rail services. For example, {{ }} {{ }} uses rail to move parcels within the western or eastern United States, but it also uses rail to move a {{ }} share between the western and eastern United States. The below chart shows that {{ }} of intermodal units are shipped by intermodal service providers that use east-west interline services.

Table 3[15]{{



}}

15. Because most shippers, intermodal and carload alike, use east-west interline services for at least some of their business, the proposed merger will directly affect most rail customers across the U.S. freight rail network.

---

[14] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3.2 Figures and Tables."

[15] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3.2 Figures and Tables."

3.3. Shippers benefit from using multiple interline routes.

16. When shippers use east-west interline service, they rarely rely on only one interline provider. This is particularly important for carload shippers, which are more likely to have only one serving railroad option; intermodal shippers more often can dray to terminals on multiple railroads.

17. For carload rail traffic that moves between the western and eastern United States across the Mississippi River, rail shippers {{ [redacted] }} distribute their shipments among multiple railroad networks offering different routing options and market access on the other side. The chart below shows that, of eastern facilities that access western markets by rail, the large majority of freight is generated at facilities that use both BNSF and UP. Similarly, of western facilities that access eastern markets by rail, the large majority of freight is generated at facilities that use both NS and CSX.[16]

[16] The chart includes all rail freight generated at eastern facilities (i.e., NS or CSXT) moving carload traffic to/from western facilities (i.e., BNSF or UP), and western facilities moving carload traffic to/from eastern facilities. Each carrier must originate/terminate at least 5% of east-west traffic to be considered as an option used at the other end. The chart excludes facilities with less than 100 units originated/terminated in 2023.

Figure 4[17]{{



}}

18. For example, an average carload shipper with a facility on NS moves {{ }} of its freight within the East on NS, but it will use both BNSF and UP for the {{ }} share moving interline to or from the West.[18] Shippers with access to a single railroad on one side of the Mississippi River usually ship to locations on multiple Class I railroads on the other side, often within a single year. For example, as the chart below shows, closed UP rail facilities that use east-west interline routes generate a total of {{ }} carloads, and {{ }} of those carloads come from closed UP rail facilities that ship on both UP-NS and UP-CSX east-west interline routes.

[17] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3.3 Figures."

[18] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3.3 Figures."

Figure 5[19]{{



}}

19. In aggregate, {{ }} of east-west interline traffic can access multiple Class I railroads on at least one end. Viewed another way, {{ }} of carload traffic on east-west interline lanes has access to only a single Class I railroad on at least one end, where {{ }} has access to multiple Class I networks on one end, as the below figure demonstrates.

[19] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3.3 Figures."

Figure 6[20]{{



}}

20. Having competitive options at either end of an east-west interline shipment ensures that shippers pay competitive rates. As the chart above shows, approximately {{ }} east-west interline carload moves have two parts: (1) a bottleneck segment between the closed shipper and a gateway interchange[21] with a railroad on the other side of the United States, and (2) a competitive segment between that gateway interchange and the final destination. On a bottleneck segment, the shipper has access to only one Class I railroad; on a competitive segment, two or more Class I railroads can compete for the movement. This structure gives shippers served by a single railroad some competitive options. The figure below summarizes the direct, lane-based rate

[20] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3.3 Figures."

[21] A gateway interchange refers to a principal interchange location—such as Chicago, St. Louis, Kansas City, Memphis, or New Orleans—where eastern and western railroads exchange traffic.

benefit on the competitive segment, controlling for relevant traffic characteristics.[22] Shippers on average receive a {{ }} lower rate on competitive segments than bottleneck segments.

Figure 7[23]{{



}}

Where the proposed merger leaves UP/NS as the only realistic option for these moves, that competition, and the rate benefit it provides, would be lost.

3.4. Gateway efficiencies support east-west interline services.

21. Gateway infrastructure and operations provide rail customers on one side of the Mississippi the ability to efficiently ship to multiple railroads on the other side. Eastern and western railroads meet at four main locations along the Mississippi River divide: Chicago, St. Louis,

[22] This analysis is based on 2023 traffic tape data for carload rail shipments and calculates the average revenue per ton-mile for competitive and bottleneck segments, limited to single car shipments and controlling for distance in 250-mile increments, 4-digit STCC, car ownership, and car type.

[23] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3.3 Figures."

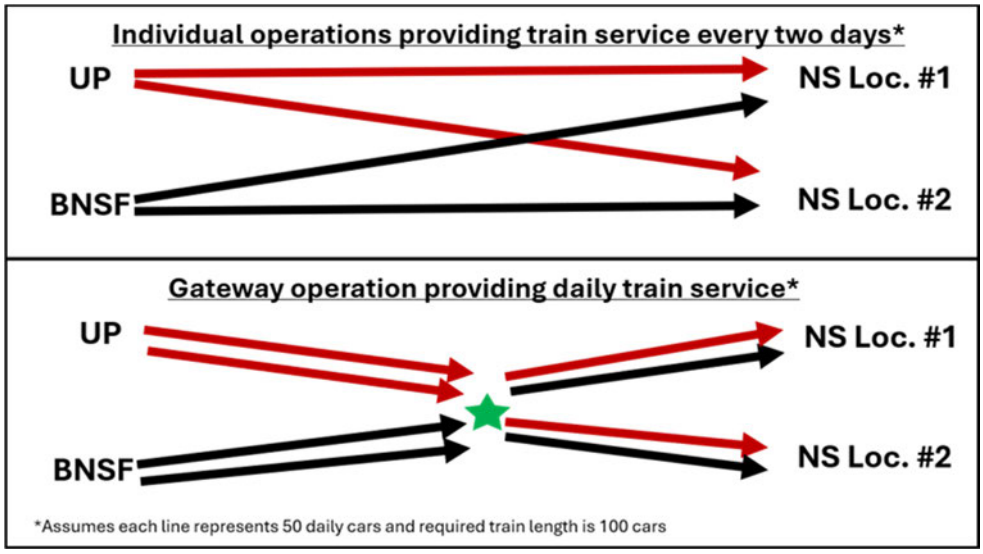
Memphis, and New Orleans.[24] As discussed in Section 10.2, interchanging rail cars among railroads at these gateways takes {{ [redacted] }} as switching rail cars from one train to another in the same railroad's yard.

22. Gateways have the unique benefit of consolidating traffic flows from one railroad on one side to provide better service to two railroads on the other side. Assuming each line represents 50 rail cars and a train requires 100 rail cars to depart,[25] the below figure shows that the ability to consolidate shipments from both UP and BNSF at gateway interchanges enables daily service instead of holding unconsolidated trains until sufficient volumes accrue.

[24] There are also single-line routes already crossing the Mississippi and other ways to connect the eastern and western Class I railroad networks. NS also connects to the West in Kansas City, MO and BNSF connects to the East in Birmingham, AL, along with a connection between the Southwest and the Southeast at Meridian, MS using the Meridian speedway jointly owned by NS and CPKC. Other physical connections between eastern and western rail networks may be made using short-line bridge routes and/or UP's Mississippi river crossing at Scott City, MO.

[25] This is a reasonable assumption because it represents about the volumes necessary to run a daily manifest train. In reality, most merchandise carload traffic would involve multiple manifest trains carrying traffic to and from a variety of origin and destination locations. However, the same positive externalities exist if these train operations benefit from larger volumes coming from multiple railroads on the other side of the gateway.

Figure 8[26]



23. In other words, because two NS destinations source goods from two different western suppliers, each may receive more frequent rail service through the hub-and-spoke operation at the gateway interchange. Each shipper's volume helps fill a shared gateway train, increasing frequency and consistency for other shippers using the same service. Without pooled volumes, individual corridors require more time to generate enough traffic, reducing the level of service. As discussed in Section 7, the merger would concentrate traffic that is now {{ [redacted] }} distributed across multiple interline routes onto a single UP/NS route. That would reduce the volume available to support competing interline services, making them less frequent and less viable over time.

24. Gateway trains consolidate volumes from one side of the gateway to reach multiple networks on the other side. The following figure shows that trains running to and from the Chicago

[26] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3.4 Figures."

gateway carry {{ }} of traffic bound to both partner carriers on the other side of the gateway.

Figure 9[27]{{



}}

25. As discussed in the next section, interline services achieve {{ }} market shares to single-line services within the eastern or western United States, which demonstrates the success of existing interchange gateway operations.

4. UP/NS SIGNIFICANTLY OVERSTATES TRUCK DIVERSIONS.

26. UP/NS's 2.1 million truck diversion estimate rests on a methodologically invalid "lookalike" modeling approach that assumes single-line rail service competes far better against truck than interline rail service does. That assumption is false; it results from mistaken comparisons

[27] *See* Zebrowski/Baranowski Workpaper "Section 3 Exhibits.xlsx," tab "3.4 Figures." We calculate average train composition shares for individual manifest train symbols to or from Chicago, then report on the chart the weighted average shares across all train symbols for a given carrier.

in the model. At the very best, a more realistic estimate of potential market opportunities is 229,330 truck diversions. Importantly, the ability to achieve these diversions does not require a merger. This section describes the inaccurate premises and modeling errors that lead to UP/NS's massive overestimate of truck diversions, presents corroborating evidence of that overstatement, and concludes, based on the available evidence, that there are no merger-specific efficiencies that would lead to truck diversions.

4.1. UP/NS's "lookalike" modeling approach is not credible.

27. UP/NS's modeling approach lacks methodological and statistical foundation and has not been used before to predict truck diversions in an STB rail merger proceeding.[28] UP/NS claims that its "lookalike" method "mirrors reference class forecasting," but does not explain what constitutes a valid reference class forecast methodology.[29] UP/NS has not identified when or where such a forecast methodology has ever been used to accurately predict truck-to-rail diversions.[30] UP/NS's open-ended claim to "base projections on the performance of similar real-world cases"[31] does not set any standards for identifying which cases are similar, how to make valid statistical inferences from a group of similar cases, and to what extent the projections represent gains from merger-specific efficiencies. Effectively, the methodology allows UP/NS to find any transportation markets where railroads achieve appealing market shares and assert that future UP-NS services offered anywhere between the two legacy networks will achieve the same

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[28] *See* "Hunt 10-07-2026 Deposition.pdf" on page 238. "Q. Are you aware of any merger proceeding in which a lookalike model has been used to estimate truck-to-rail diversions by the applicants? A. Outside of this one, I am not."

[29] *See* Verified Statement of David Hunt (Sept. 4, 2026) on page 30.

[30] *See* "Hunt 10-07-2026 Deposition.pdf" on page 242. "Q. Okay. Do you cite any scholarly papers on lookalike methodologies for estimating diversions? A. I do not."

[31] *See* Verified Statement of David Hunt (Sept. 4, 2026) on page 30.

outcome. This sets up irrational comparisons and arbitrary model specifications, which we discuss in Section 4.3. But we begin by critiquing the fundamental premises UP/NS uses to predict truck diversions.

4.2. Truck diversions rest on premises the data do not support.

28. UP/NS's 2.1 million truck diversion estimate depends on the sole premise that single-line rail service wins more market share than interline rail service. UP/NS purports to show that single-line service competes better against trucks and attributes this to single-line advantages in transit time, reliability, and price. But the data show that single-line and interline rail services win similar market shares against long-haul trucking, undermining UP/NS's fundamental assertion. This single-line and interline rail service dynamic makes sense given how similar the two rail services are compared to long-haul trucking.

4.2.1. Interline rail shares are comparable to single-line rail shares.

29. UP/NS base their truck diversion projection on the inaccurate claim that, in markets where truck and rail compete, single-line rail service wins 15 to 26 percentage points more market share than interline service in merchandise/bulk markets and 15 to 22 percentage points more in intermodal markets.[32] These alleged gaps do not reflect a preference for single-line service as UP/NS assert. They instead stem from basic differences in the traffic mix underlying UP/NS's analysis. When those differences are properly accounted for, single-line and interline rail services win very similar market shares against trucks.

30. Rail share in bulk/merchandise markets is very similar for interline and single-line services when limited to markets where rail and truck actually compete. However, UP/NS's

[32] *See* Verified Statement of David Hunt (Sept. 4, 2026) on pages 24-5.

analysis includes two large groups of freight where rail and truck do not compete:[33] (1) grain markets served only by rail that are concentrated in single-line territory, and (2) low-density markets served only by truck which are more concentrated in interline territory. As discussed below, UP/NS's market share analysis should exclude these two markets because they offer no meaningful rail-truck competition from which to draw an inference about competitive differences between interline and single-line rail services.

31. ***First***, UP/NS's comparisons inflate single-line rail market shares by failing to control for rail-dependent grain flows concentrated in the western United States. The resulting gap does not reflect any advantage of single-line service over interline service against truck, but instead reflects the fact that large volumes of rail-dependent grain move in regions with single-line rail service.[34] In particular, railroads move large volumes of grain in unit trains from the Great Plains to Gulf Coast and Pacific Northwest export terminals. UP/NS include this single-line, rail-dependent grain volume in their market share comparisons, creating a perceived difference between single-line and interline shares.[35] By including rail shares for lanes with significant grain volumes,[36] UP/NS inflate the apparent benefit of single-line service. In fact, UP/NS's own

[33] UP/NS's expert started with Transearch truck data, removed commodities more likely to move in intermodal service, added in bulk/merchandise traffic tape rail data and filtered data to only county to county pairs with available rail service. He identified interline service as lanes that require two Class I carriers to move shipments.

[34] On lanes over 500 miles, {{ [redacted] }} of grain freight tons—whether moved by truck or rail—stay within single-line territory, and on those single-line lanes rail carries {{ [redacted] }} of all grain tons. *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 4."

[35] *See* Verified Statement of David Hunt (Sept. 4, 2026) on page 25.

[36] Other bulk commodities including coal and crude were already removed from UP/NS's market share analysis of merchandise markets and UP/NS does not explain why it did not also remove grain, which also moves primarily in unit train service and rarely moves by truck. Grain has a uniquely distorting effect due to its heavy concentration in the western United States.

diversion results undercut this reliance on grain: UP and NS predict very little grain diverting from truck to rail. Once grain is removed, much of the single-line advantage underlying UP/NS's truck diversions disappears.

32. ***Second***, large amounts of truck-dependent freight in very low volume lanes inflate UP/NS's market share comparisons. UP/NS recognizes that counties originating fewer than two railcars per week of a given 2-digit STCC commodity are not eligible to receive diversions. That makes sense: counties that do not ship or receive meaningful volumes of a commodity by rail will not start using rail simply because some interline lanes become single-line lanes. But UP/NS did not apply the same criterion when comparing market shares. By UP/NS's own criteria, interline regions contain more freight that lacks sufficient volume for rail service of any kind, single-line or interline.[37] As a result, the comparison reflects the relative concentration of truck-dependent, low-volume freight in single-line and interline regions, not how well single-line and interline services perform in comparable markets where rail competes with truck. The comparison thus converts differences in regional freight composition into an interline-service disadvantage that does not exist.

33. After removing the distorting effects of rail-dependent grain and truck-dependent low-volume freight, interline and single-line services achieve very similar shares. Table 4 summarizes the adjustments we made to UP/NS's market share data to remove those distortions.

[37] The reason these counties do not ship by rail, and thus do not generate sufficient rail volumes, is not due to the lack of single-line services, since {{ [redacted] }} of traffic to or from these counties already flows within single-line territory and still does not use rail to move within this territory. *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 4."

Table 4[38]{{



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34. Without the distorting effects of grain and low volume freight traffic, interline and single-line market shares are far more similar than UP/NS's comparisons suggest. Figure 10 re-states UP/NS's comparisons of interline and single-line market shares on that basis.

Figure 10[39]{{



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35. Figure 10 shows that single-line and interline services perform far more similarly than UP/NS's comparisons suggest. For example, UP/NS asserts that single-line service outperforms interline service by 20 percentage points for movements of 1,500 to 1,999 miles, but

[38] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 4."

[39] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Figure 10."

in comparable markets rail shares differ by only {{ [redacted] }}. Because the truck diversions depend on closing market share gaps between single-line and interline service, the near absence of such gaps drastically reduces the likelihood of diversions.

36. Rail share in intermodal markets is also very similar for interline and single-line lanes when controlling for corridor size. Higher volume freight corridors are more likely than lower volume freight corridors to achieve high rail shares. For example, the truck diversion study submitted in the CP/KCS merger proceeding properly recognized that density influences modal share, and controlled for density in its regression approach for predicting truck diversions.[40]

37. The underlying data used in UP/NS's market share comparisons (which is also used in UP/NS's diversion model) demonstrates the significant influence of corridor density on intermodal share.[41] Figure 11 compares average intermodal market share in lower volume and higher volume corridors with intermodal terminals on each end.

[40] *See* Zebrowski/Baranowski Workpaper "Verified Statement of Bengt Muten, FD 36500.pdf" on page 18.

[41] This chart includes all origin-destination lanes between catchment areas where UP/NS has identified that intermodal terminals and rail service is possible.

Figure 11[42]{{



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38. UP/NS's market share analysis mistakenly attributes the advantages of higher volume to single-line service, because it compares higher volume single-line corridors against lower volume interline corridors. Figure 11 shows that average rail market share in lower volume corridors is {{ }} lower at 500 to 999 miles and {{ }} lower at 2000+ miles than in higher volume corridors. As Figure 12 shows, interline lanes achieve comparable shares when controlling for corridor size.[43]

[42] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Figure 11."

[43] This chart covers moves over 1,500 miles in origin-destination lanes with less than 50,000 units since this is where {{ }} of predicted truck-to-intermodal diversions occur. The difference in rail share means between interline and single-line markets is not statistically significant at conventional levels ($p > 0.05$). *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Figure 12." Lower volume corridors are defined as origin-to-destination lanes with less than 50,000 annual rail containers and rail competitive truck units. We include versions separately covering 1,500-1,999 miles and 2,000-2,499 miles in our workpapers to demonstrate the outcome is the same when controlling for more specific mileage bands.

Figure 12[44]{{



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4.2.2. Transit time, reliability, and price characteristics are similar for single-line and interline services and very different from truck.

39. Differences between single-line and interline rail services are small compared to the large differences between rail and truck, which explains why they win comparable market shares. The transit time, reliability, and price differences are small relative to the rail-truck gap, and interline services match them today.

40. ***Transit time:*** UP/NS claims that customers favor single line because of faster transit times and that interchanges (especially for intermodal service) add around a day of transit time.[45] However, UP/NS does not provide actual transit time measures comparing single-line and interline service, and the data does not support its claim. As discussed in Section 10.2, UP single-

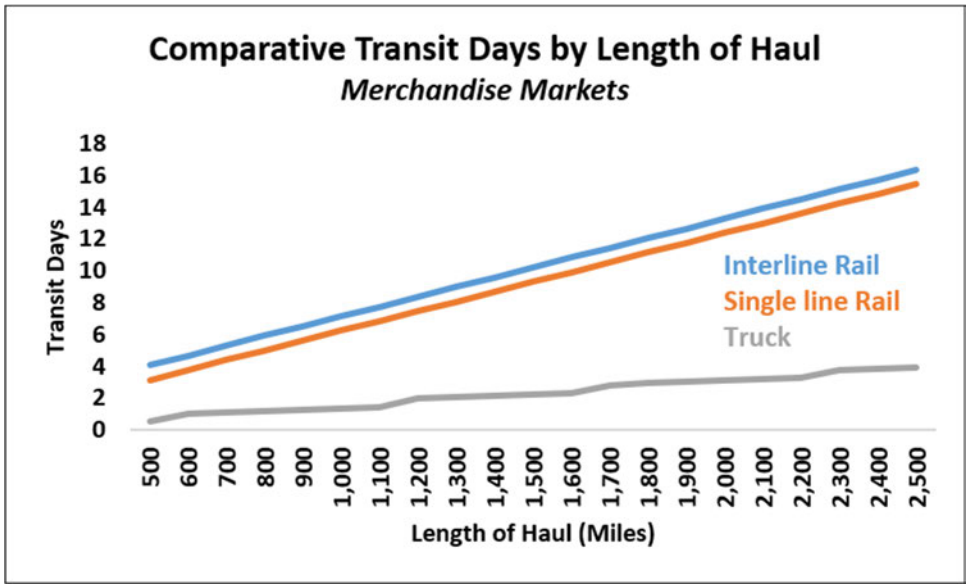
[44] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Figure 12."

[45] *See* Verified Statement of David Hunt (Sept. 4, 2026) on page 15. "Customers strongly favor single-line service over interline service because of its lower costs, improved reliability, and faster transit times." *See also* Verified Statement of David Hunt (Sept. 4, 2026) on page 30. "The issue of interchange time is most acute for intermodal."

line and UP-NS intermodal services operate, on average, at equivalent speeds, which is consistent with the fact that UP-NS frequently perform intermodal interchanges in less than {{ [redacted] }}.[46]

41. For carload shipments, truck transit times are on average much faster than rail, with or without an interchange. Even accepting UP/NS's claim that interchanges add 22 hours of transit time, eliminating that time would only marginally narrow the rail-truck gap. Using UP/NS's own modeling and transit time assumptions from its truck-to-merchandise diversion model, Figure 13 shows the large difference between rail and truck and the small difference between interline and single-line rail.[47]

Figure 13[48]



[46] Likewise, UP/NS's expert recognizes that run-through intermodal interchanges take only 3 hours. *See* Verified Statement of David Hunt (Sept. 4, 2026) on page 109.

[47] *See* Verified Statement of David Hunt (Sept. 4, 2026) on page 175 for a summary of assumptions for calculating transit times.

[48] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Figure 13."

42. Eliminating gateway interchanges would do little to make rail more competitive with truck. Figure 13 shows that, under UP/NS's own analysis, eliminating 22 hours of assumed interchange time would not meaningfully improve rail's timeliness relative to truck. For example, UP/NS touts reducing rail transit time from Minneapolis, MN to Columbus, OH from 130 hours to 108 hours, but the same analysis shows the move takes only 27 hours by truck. UP/NS does not explain why shippers now using truck would reject a rail option that takes 103 hours longer but choose one that takes 81 hours longer.[49] As discussed in Section 10.2 and Section 10.3, transit time will not change at all to the extent UP/NS replaces an eliminated interchange switch with a switch between its own trains that takes the same amount of time.

43. ***Reliability:*** UP/NS did not analyze any data to support its claim that single-line service is more reliable, nor did they provide the end-to-end on-time performance data required to evaluate this claim.[50] In produced documents, UP and NS both report having reliable interchanges. UP documents reference {{ [redacted] }} interline intermodal services offered with CN and FXE between Mexico and Canada.[51] NS documents reference how {{ [redacted] }} and characterize this as {{ [redacted] }}[52]

44. As discussed in Sections 10.3 and 10.5, the limited scope of planned changes to train operations and minimal handling reductions does not support the expectation that reliability

[49] *See* Verified Statement of David Hunt (Sept. 4, 2026) on page 175.

[50] *See* Verified Statement of David Hunt (Sept. 4, 2026) on page 28.

[51] *See* UP_2424871.pdf.

[52] *See* NS_00468049.pdf.

would meaningfully improve due to the proposed merger. Section 10.6 discusses shortcomings in planned service for growth traffic, which is frequently not modelled, usually involves similar linehaul trains as are operating today, and adds intermediate stops for intermodal lanes which negatively impacts reliability. The deficiencies in UP/NS's operating plan and service assurance plan modeling work discussed in Section 12 also indicate service integration problems may harm reliability.

45. ***Price:*** While UP/NS provides limited analysis purporting to show significant differences between single-line and interline prices, these differences are not driven by cost differences.[53] Instead, they may differ due to poor data quality and methodology, since UP/NS bases its analysis on CWS data which only covers 26% of interline shipments and does not control for most factors that impact rail price, including shipment size, car ownership, specific commodity type, and competitive status at origin and destination.[54] Running a comparable analysis for variable costs, rather than revenue, and controlling for appropriate traffic type characteristics,[55] shows there is very limited difference between single-line and interline moves from a cost perspective.

[53] *See* Verified Statement of David Hunt (Sept. 4, 2026) on pages 27-8.

[54] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Cites."

[55] We calculated weighted average variable costs per ton-mile across individual traffic groups with at least 1,000 units in both interline and single-line groups segmented by 4-digit STCC, 250-mile distance buckets, shipment size, and car ownership in the CWS for service type 1.

Table 5[56]{{



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46. To put single line and interline cost differences in perspective, the average rate of an east-west intermodal container is ${{ }}, making the $6 incremental URCS variable cost per container for an interchange instead of an I&I switch insignificant.[57] The average rate of an east-west carload is ${{ }}, making the $146 incremental URCS variable cost per carload for an interchange instead of an I&I switch similarly insignificant. Even if an I&I switch were not required, the savings would still only be $184 per round trip carload, which does not significantly affect the cost structure of the move.[58]

[56] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 5."

[57] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Cites." Interchange and I&I intermodal and carload costs cover a round trip move using 2023 URCS costs. The difference is based on assuming a UP-side and NS-side interchange will be replaced by a single UP I&I switch. Cost calculations include Switch Engine Minute costs, car-day costs, and interchange and I&I make whole adjustments. These calculations assume railroad-owned equipment, which directly reflect costs to the railroad but also serve as a proxy representing potential savings for private equipment.

[58] As discussed in Sections 10.3 and 10.6, UP/NS's Operating Plan does not significantly reduce handlings, which indicates additional I&I switches will generally replace eliminated interchanges.

4.3. UP/NS's mis-specified models artificially manufacture truck diversions.

47. UP/NS predicts large truck diversions because its "lookalike" models are pervasively biased upward. But nearly all UP/NS's estimated truck diversions are based on basic and indisputable design errors. The models assume that a cherry-picked subset of low-performing interline lanes will "look like" a cherry-picked subset of high-performing single-line lanes, even though single-line and interline lanes achieve very similar rail market shares on average.

4.3.1. Nearly all UP/NS's predicted truck diversions result from mechanical errors.

48. Mechanical errors cause both the truck-to-merchandise and truck-to-intermodal diversion models to predict diversions where none should occur. At core, both models are set up to manufacture diversions out of thin air based on the compounded effects of the following four errors:

- ***First***, the models inflate the target rail share by excluding low-performing single-line lanes while keeping low-performing interline lanes.
- ***Second***, the models take target rail shares from high-volume lanes and apply them to low-volume lanes, which naturally tend to have lower rail shares.
- ***Third***, the models count diversions where interline shares fall below the target but ignore cases where interline shares are above it.
- ***Fourth***, the models exploit rail share differentials that exist to preserve flow balance to generate more diversions (truck-to-intermodal diversions only).

49. Correcting these errors eliminates the large majority of predicted truck diversions. That is the expected result: while the models are built to close market share gaps, single-line and interline services already have similar average market shares.

50. Regarding the truck-to-merchandise model, the core issue is that contrary to the modeling premise, single-line and interline rail shares in the model are already the same when comparing like markets. Table 6 shows that lanes in the model where UP/NS could convert current

interline service to single-line service under the proposed merger (i.e., "addressable lanes") already achieve the same rail shares as single-line "archetype" lanes.

Table 6[59]{{

[redacted]

}}

51. Because there are no market share gaps to close, a reliable model would not predict any diversions. But UP/NS's model estimates diversions where there should be none. In the simplified example below, single-line and interline lanes start with the same average rail share, yet the model still predicts diversions.

Table 7[60]

	Single Line "Archetype Lanes" Setting Target Rail Share	**Current UP/NS "Addressable Lane" Rail Share**	**Post Diversion UP/NS "Addressable Lane" Rail Share**
#1 - Inactive county lanes	0% (ignore)	0%	45% (increase to target)
#2 - Lower rail share lanes	30%	30%	45% (increase to target)
#3 - Higher rail share lanes	60%	60%	60% (unchanged)
Average rail share	**30%**	**30%**	**50% (higher than single-line)**
Target rail share	45%		

[59] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 6."

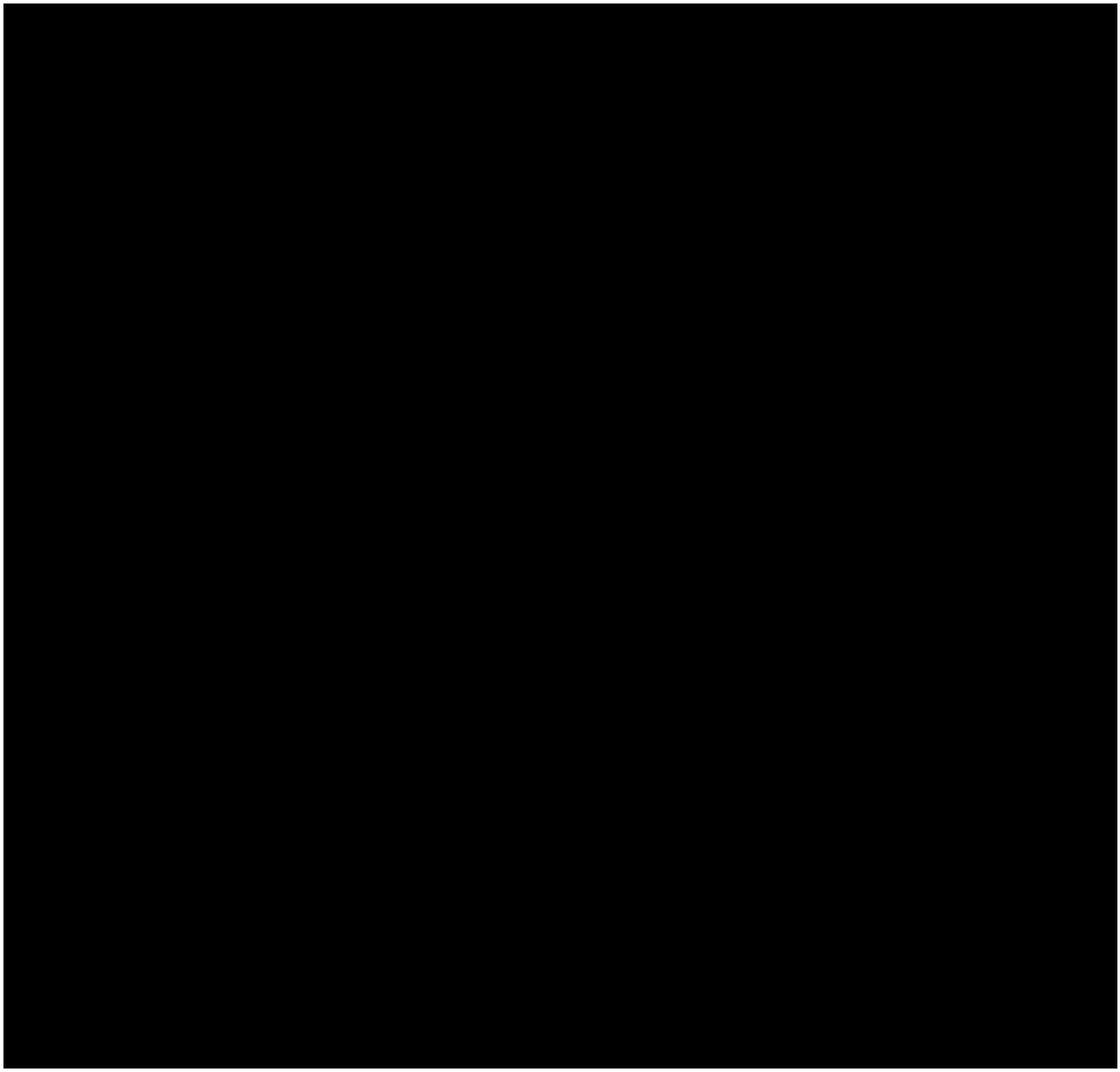
[60] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 7."

52. Specifically, Table 7 shows how UP/NS's model can start with single-line and interline lanes with identical average market shares of 30% and still generate diversions by pairing high-performing single-line lanes with low-performing interline lanes. The result is that "addressable" interline lanes end up with higher market shares than the "archetype" single-line lanes on which they are supposedly based.

53. Regarding UP/NS's truck-to-intermodal diversions, UP/NS create diversions by assuming that smaller market UP/NS intermodal lanes will perform as well as the largest and most successful intermodal corridors in the country, rather than other smaller market lanes in single-line territory which have similar average rail shares. For example, as the below map shows, the target rail share for dozens of smaller UP/NS interline lanes (e.g., San Francisco to Columbus) is based almost entirely on a very few major intermodal lanes (e.g., Los Angeles to Chicago) rather than similar, smaller single lines (e.g., San Francisco to St. Paul). [61]

[61] These maps depict lanes in the 2000+ mileage band, rail price within 10% of truck price, and rail transit time within a day of truck transit time. {{ [redacted] }} of the weighted average target share is based on lanes between Los Angeles, San Francisco, Portland, Seattle, and Chicago. *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Figure 14."

Figure 14[62]{{



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54. For the segment depicted on the above map, using a target rail share based on comparable small-market single-line lanes, rather than the major intermodal corridors to Chicago,

[62] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Figure 14."

would reduce the {{ }} diversions estimated for the smaller-market addressable lanes by {{ }}.[63]

4.3.1.1. Unequal treatment of low performing single-line and interline lanes

55. Both models create upward bias by excluding low rail share archetype single-line lanes while increasing rail volumes on similar low rail share interline lanes. This circular calculation mathematically produces diversions, but it does not rest on any demonstrated advantage of single-line over interline rail service.

56. ***Truck-to-merchandise model:*** If an archetype lane with available single-line rail service originates in a county generating fewer than two rail cars per week of a given commodity, the lane is excluded from the target rail share. As Table 6 shows, filtering out these low-volume lanes raises average rail shares from {{ }} to {{ }}. That filter is not a problem by itself. UP/NS properly recognize that counties with little or no rail volume for a given commodity today likely do not generate enough rail-eligible freight to support rail service, whether or not the merger occurs.[64] The problem is that UP/NS ignores this limit when calculating diversions and circularly works its way around it: applying the inflated target shares creates the rail volumes needed to satisfy the volume requirement.[65] This approach is biased. By the same logic, diversions could be predicted in single-line territory by taking higher rail shares from active rail lanes, applying them

[63] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Figure 14."

[64] Since {{ }}% of freight in these counties is already moving in geographies with single-line service but uses truck instead, more single-line service for the remaining volumes will not address the underlying reasons why existing single-line service is not used today. *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 4."

[65] E.g., applying a 50% target rail share to a lane that has 2,000 trucks, equivalent to 400 rail cars, and 0 rail cars generates 200 rail cars of a given commodity originating in that county, which is now enough to support rail service.

to lanes from counties that do not use rail today, and then claiming those counties now generate enough volume for rail to serve.

57. ***Truck-to-intermodal model:*** If both directions of an archetype lane with available single-line rail service move fewer than 4,380 containers a year (12 containers a day), the lane is treated as inactive and excluded from the target rail share. Filtering out these inactive lanes raises weighted average single-line target rail shares from {{ }} to {{ }}.[66] Again, focusing the analysis on lanes that actively move intermodal volume is not a problem by itself. The problem is that UP/NS generates most diversions on currently inactive UP-NS interline lanes using target rail shares from active single-line lanes.

58. In other words, UP/NS excludes inactive lanes from the target group and then uses the resulting higher target shares to let inactive UP-NS interline lanes generate enough traffic to become active.[67] For example, UP/NS does not count the single-line intermodal lane from Los Angeles to Omaha when setting the target share since both lane directions have less than {{ }} annual units, but does count diversions on the interline intermodal lane from Louisville to San Francisco that also currently has less than {{ }} units. Assuming that all inactive single-line lanes achieved the rail shares of active single-line lanes would likewise produce massive predicted diversions. That is diversion by fiat, not legitimate modeling with meaningful statistical support.

4.3.1.2. Failure to control for effects of density on rail share

59. Both models also overstate diversions by ignoring the well-established fact that rail share rises with total freight volume. Because of this key omission, the models generate diversions

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[66] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Cites."

[67] Specifically, applying the inflated target shares creates the rail volumes needed to satisfy the volume requirement. E.g., applying a 50% target rail share to a lane that has 10,000 trucks and 0 rail containers generates 5,000 rail containers, which is now enough to support rail service.

by raising the low rail shares typical of low-volume markets to the high rail shares typical of high-volume markets. This skewed calculation produces diversions, but it does not rest on any demonstrated advantage of single-line over interline rail service.

60. ***Truck-to-merchandise model:*** The model takes an already skewed selection of lanes and sets target rail shares using a weighted average, which gives very low-volume lanes practically no weight. This is highly problematic because most diversions come from very low-volume lanes, and such lanes have very few rail shipments in either single-line or interline territory, even though physically connected to the rail network. Segmenting markets in UP/NS's model into very low-volume lanes and all other lanes shows that single-line and interline shares are equal, leaving no market share gaps to close. As Table 8 shows, by failing to control for volume density, the model generates diversions by applying target shares from higher-volume lanes to very low-volume lanes.

Table 8 [68]{{



}}

[68] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 8."

[69] Only includes lanes with predicted diversions.

61. Over half the truck-to-merchandise diversions—{{ [redacted] }} carloads, representing {{ [redacted] }}} truck diversions—are artificially created on very low volume lanes by this erroneous calculation.[70]

62. ***Truck-to-intermodal model*:** The model similarly inflates target rail shares by giving undue weight to larger intermodal corridors, which tend to have higher rail shares. This happens for two reasons: single-line archetype lanes have higher average volumes than addressable interline lanes, and the model uses weighted averages to calculate target rail shares which exacerbates these differences.

63. First, the model ignores well-established precedent of controlling for lane density and, as a result, selects archetype lanes with much higher densities than the addressable lanes. Most recently, the truck diversion study submitted in CP/KCS used a regression approach that included a control variable for corridor density, which proved statistically significant.[71] Likewise, when Burlington Northern projected a modest number of truck diversions—approximately 100,000—in seeking approval to acquire the Atchison, Topeka and Santa Fe, lane volumes were the central factor in setting diversion percentages.[72] As Figure 11 above shows, higher lane density is strongly associated with higher rail share. Operational and marketplace realities explain this

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[70] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 9."

[71] *See* "Verified Statement of Bengt Muten, FD 36500.pdf" on page 18.

[72] *See* "Verified Statement of Peter Stone, FD 32549.pdf" on pages 28 and 30. "Our assessment of the appropriate diversion percentage factor began with the proposition that it is more difficult to achieve intermodal diversions if there is less frequent train service at any origin point. That is, in most cases, a shipper or its agents will not allow a trailer to wait an extra day or two when a trucker could be on his way and perhaps accomplish most or even all of his line haul by the time the next train is ready to depart. For that reason, we tied the percent of traffic diverted to the volume of traffic available at each hub area… We applied the maximum 33% diversion percentage figure only to the markets large enough to justify a substantial level of intermodal service, i.e., two daily intermodal trains."

pattern. Because each intermodal train carries roughly two to three hundred containers, larger corridors can start more trains serving more individual terminals providing differentiated service, which reduces origin dwell and expands customer options. For example, shippers moving freight from Los Angeles to Chicago can choose among 5 intermodal terminals in the Los Angeles region that together start at least 16 intermodal trains to Chicago each day on average. Some are direct and offer 3-day service at a higher price; others take longer but cost less; and they serve 17 different intermodal terminal locations around Chicago.[73] By contrast, for the San Francisco to Columbus lane that UP/NS claims will "look like" the Los Angeles to Chicago lane (among others) and achieve the same rail share, UP/NS proposes a single daily train from a single intermodal terminal, making {{ [redacted] }} work stops enroute.[74]

64. As Figure 15 shows, the model consistently sets target rail shares using single-line lanes that are, on average, much denser than the UP-NS interline lanes to which those shares are applied.[75]

[73] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Cites."

[74] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Cites."

[75] We use 50,000 rail competitive units as a break point due to differences in rail market shares in markets below and above this threshold.

Figure 15[76]{{



}}

65. This large difference in lane size significantly affects the diversion results. Because the model does not control for lane size, it generates diversions by applying higher rail shares from higher-volume lanes to lower-volume lanes, misattributing a difference in lane size to a supposed difference between single-line and interline service.

66. UP/NS's choice to calculate target rail shares using weighted averages amplifies this lane-size mismatch by giving the larger lanes even more weight. For example, the very large intermodal corridors linking Los Angeles, San Francisco, Portland, and Seattle with Chicago have an outsized influence on the model's largest market segment: a full {{ }} of its weighted average target rail share is based on these lanes. Overall while only {{ }} of diversions occur on lanes with more than 50,000 annual units, {{ }} of the single-line target rail share, under UP/NS's weighted average calculation, is based on such lanes.[77]

[76] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Figure 15."

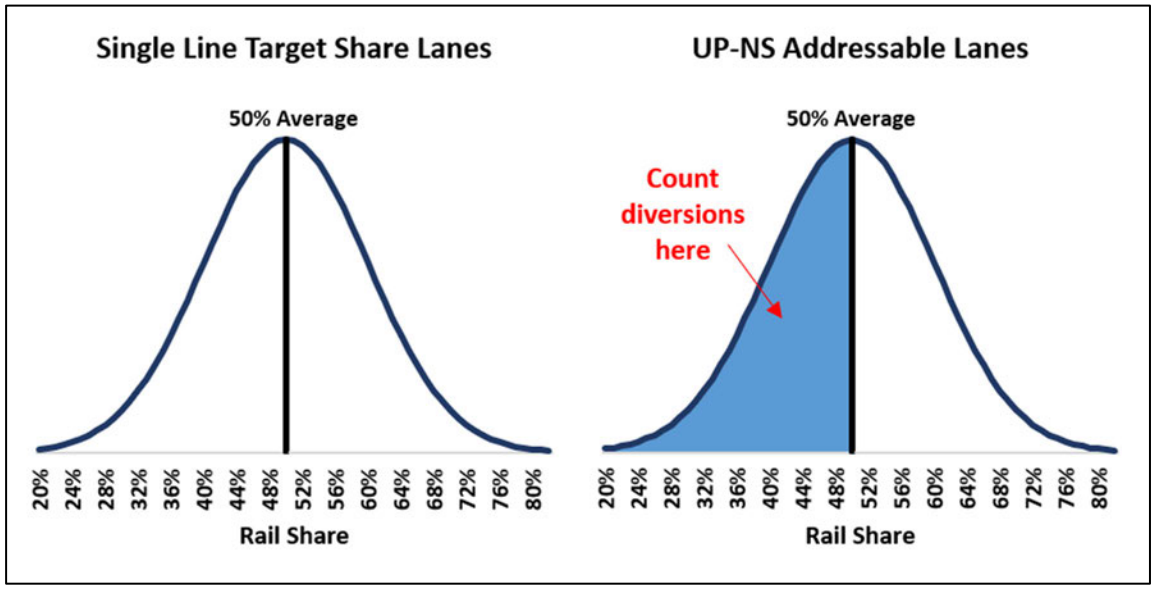
[77] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Figure 15."

4.3.1.3. Basing diversions on skewed counting rather than statistical differences

67. Both models also overstate truck diversions by ignoring statistical distributions and counting only positive impacts. This flawed calculation mathematically produces diversions, but does not rest on any demonstrated advantage of single-line over interline rail service.

68. ***Truck-to-merchandise model:*** For each addressable interline lane, the model raises the rail share to the target share when the target is higher, but keeps the existing rail share when the target is lower. As a result, even across a typical distribution of similar single-line and interline lanes with equal average rail shares, the model would predict large truck diversions by cherry-picking one side of the distribution instead of drawing valid statistical inferences from averages across the whole distribution. Figure 16 illustrates this.

Figure 16[78]



[78] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Figure 16."

69. Because of this biased counting, the model generates diversions even where comparable groups of single-line and interline lanes have the same average rail shares. The table below shows that half of UP/NS's claimed diversions are on very low-density lanes where, as discussed above, rail service is unrealistic. The other half are on lanes where single-line "archetype" and interline "addressable" lanes already have the same average rail shares, so diversions are predicted only because of biased counting.

Table 9[79]{{

[redacted]

}}

70. This table shows that, among diversions involving counties with enough volume to support rail service, interline service already achieves higher rail shares than single-line service (creating negative diversions) just as often as the reverse (creating positive diversions).

71. ***Truck-to-intermodal model:*** Like the truck-to-merchandise model, the truck-to-intermodal model disregards interline lanes whose rail shares exceed the target. So even across a typical distribution of similar single-line and interline lanes with equal average rail shares, it would predict large truck diversions by cherry-picking one side of the distribution instead of drawing valid statistical inferences from averages across the whole distribution.

[79] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 9."

4.3.1.4. Failure to control for effects of flow imbalance on rail share

72. Another problem, which affects the truck-to-intermodal model, concerns flow balance: bidirectional intermodal corridors tend to keep the number of containers moving in each direction within a given range. For example, if twice as much freight moves eastbound as westbound, the westbound rail share might be twice as high so that the same number of containers moves by rail in each direction. By failing to control for flow balance, the model exploits this tendency to generate diversions that inherently disrupt flow balance. It does so by calculating rail shares from bidirectional lanes but applying them to each direction of an addressable lane separately.

73. The table below illustrates how applying the average bidirectional rail share from a balanced lane to both directions of an addressable lane generates diversions by creating an imbalance.[80]

[80] The same rail share is applied to both directions of an addressable lane for half of bidirectional addressable lanes.

Table 10[81]

	Eastbound	Westbound	Combined
Archetypes Include Two Way Lanes			
Total Units	100,000	80,000	180,000
Rail Share	40%	50%	**44% Target**
Balanced Rail Units	40,000	40,000	80,000
Diversions Calculated on One Way Basis			
Total Units	10,000	8,000	18,000
Rail Share	40%	50%	44%
Pre Diversion Balanced Rail Units	4,000	4,000	8,000
Two Way Archetype Share	**44% Target**	**44% Target**	**47% Post-Diversion Share**
Diversions	444	-	444
Post Diversion Unbalanced Rail Units	4,444	4,000	8,444

74. In Table 10, head-haul rail shares are lower precisely to keep backhaul rail volumes in balance, and combining the bidirectional shares necessarily disrupts that balance. Approximately {{ [redacted] }} of all diversions on lanes with existing rail volumes worsen existing flow imbalances, and {{ [redacted] }} of all diversions on lanes without existing rail volumes push those lanes to higher-than-normal imbalances.[82]

4.3.2. Correcting UP/NS's mechanical errors dramatically reduces predicted truck diversion estimates.

75. The serious mechanical flaws detailed above undermine the legitimacy of UP/NS's truck diversion study. This section applies reasonable corrections for these flaws and estimates their combined effect on predicted truck diversions. In total, correcting the four major flaws

[81] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 10."

[82] The median flow imbalance across all active intermodal corridors, as defined by UP/NS's expert, is 1.71, i.e., 1.71 head-haul to every 1.0 backhaul revenue container. *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 10."

reduces UP/NS's predicted 2.1 million diversions to 229,330. These corrected figures are not diversions likely to result from the proposed merger, which would require a methodologically valid study; rather, they are a more realistic estimate of the market opportunities that either interline or single-line service may be able to win as a result of the proposed merger.

76. ***Truck-to-merchandise corrections:*** We made three corrections to the truck-to-merchandise diversion model. First, we included lanes from origin counties with low rail volume in both the archetype and addressable lane groups, eliminating unjustified upward bias.[83] Second, we segmented markets by whether lanes carry more or less than 1,000 tons annually, capturing the effect of lane size on rail share. Third, we calculated diversions based on the net difference between positive and negative model predictions, producing statistically meaningful estimates. As Table 11 shows, with these necessary corrections, the model predicts slightly negative, i.e., effectively zero, truck diversions.

Table 11[84]

	Very Low Volume Lanes	Other Lanes	Diversions (in Truckloads)
Original Diversion Estimate	{{ [redacted]	[redacted]	849,549
Fixing Error 1: Including inactive rail lanes in archetype shares	[redacted]	[redacted]	583,331
Plus Fixing Error 2: Accounting for density when applying archetype shares	[redacted]	[redacted]	431,284
Plus Fixing Error 3: Netting out negative diversions	[redacted]	[redacted] }}	-25,013

[83] Excluding inactive archetype and addressable lanes would also be a valid approach, but we did not consider that scenario due to the many diversions that UP/NS claims on inactive addressable lanes.

[84] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 11."

77. ***Truck-to-intermodal corrections:*** We made four corrections to the truck-to-intermodal diversion model. First, we included inactive intermodal lanes in both the archetype and addressable lane groups, eliminating unjustified upward bias.[85] Second, we segmented markets into lower- and higher-density lanes, using 50,000 annual units as a reasonable break point, capturing the effect of lane size on rail share. Third, we calculated diversions based on the net difference between positive and negative model predictions, producing statistically meaningful estimates. Fourth, we did not allow diversions that worsen existing flow imbalances, or result in higher-than-normal flow imbalances for lanes without existing intermodal flows in both directions.[86] As the table below shows, these necessary corrections reduce predicted truck-to-intermodal diversions by almost 1 million units.

Table 12[87]

	Low Density Lanes	High Density Lanes	Total Diversions
Original Diversion Estimate	{{ [redacted]	[redacted]	1,200,854
Fixing Error 1: Including inactive rail lanes in archetype shares	[redacted]	[redacted]	881,374
Plus Fixing Error 2: Accounting for density when applying archetype shares	[redacted]	[redacted]	508,462
Plus Fixing Error 3: Netting out negative diversions	[redacted]	[redacted]	411,897
Plus Fixing Error 4: Not exacerbating flow imbalances	[redacted]	[redacted] }}	229,330

[85] Excluding inactive archetype and addressable lanes would also be a valid approach. However, due to the many diversions that UP/NS claims on inactive addressable lanes, this approach would eliminate a large portion of the claimed diversion benefit and is therefore not considered. Rather than removing those lanes from the analysis, the estimates presented in Table 12 retain them and correct the methodology itself.

[86] This is based on the median flow imbalance across all active intermodal lanes of 1.71. *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 10."

[87] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 12."

78. Correcting the models' mechanical errors substantially reduces UP/NS's predicted truck diversions. Table 13 combines the corrected truck-to-merchandise and truck-to-intermodal diversions into a re-stated version of UP/NS's original prediction.

Table 13[88]

UP/NS Amended Application Truck Diversion Estimate[89]	**2,050,403**
Fixing Error 1: Including inactive rail lanes in archetype shares	−585,697
Fixing Error 2: Accounting for density when applying archetype shares	−524,959
Fixing Error 3: Netting out negative diversions	−527,849
Fixing Error 4: Not exacerbating intermodal flow imbalances	−182,567
Re-Stated and Corrected Truck Diversion Estimate	**= 229,330**

79. Most of the re-stated diversions do not even move to, from, or within the watershed, where UP/NS emphasizes the merger will have an impact. Of the re-stated 229,330 truck diversions, there are zero truck-to-merchandise diversions and only 85,841 truck-to-intermodal diversions moving to, from, or within the watershed region.[90]

4.3.3. Re-stated truck diversions do not reflect merger-specific benefits.

80. The re-stated truck diversion estimates do not reflect merger-specific benefits because UP/NS's Operating Plan does not credibly demonstrate service improvements for truck diversion traffic, and the price and service levels that would win these diversions are already available today.

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[88] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 13."

[89] Does not include truck to auto diversions.

[90] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Cites."

81. For truck-to-merchandise diversions, the Operating Plan did not model service for most diverted carloads, and the modeled portion shows minimal changes from current operations. A full {{ [redacted] }} of predicted truck-to-merchandise diversion carloads originate or terminate in counties whose rail volumes UP's own expert acknowledges are too low to be eligible for diversions.[91] As discussed in Section 12.5, UP/NS sidesteps the difficulty of providing adequate, economical rail service in low-volume counties by modeling train service only for a portion of diversion traffic on the highest-volume lanes, which are inherently easier to serve. And as discussed in Section 10.3, of the modeled carload diversion traffic, {{ [redacted] }} never ride on new run-through gateway trains.

82. For truck-to-intermodal diversions, the Operating Plan does not adequately provide for faster or more reliable service. As discussed in Section 12.2, UP/NS does not provide end-to end transit times for any specific lanes. As discussed in Section 10.2, for the few new trains where UP/NS provides transit times, existing interline trains are often already faster, and UP-NS interline and UP single-line intermodal lanes already operate at equivalent average speeds. And as discussed in Section 10.5, future train operations for intermodal diversions under the Growth Plan involve more intermediate stops than on existing lanes, adding transit time and reducing reliability.

4.4. Supporting evidence confirms that the diversion models' results are not credible.

83. The implausible results of UP/NS's truck diversion models and limited truck diversions after the CP/KCS merger corroborate that UP/NS significantly overestimated truck diversions.

[91] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Cites."

4.4.1. The models' mechanical errors lead to illogical results.

84. The truck diversion models' illogical results corroborate the technical flaws discussed above. Most notably, applying the same modeling framework to pre-merger existing UP and NS single-line territory predicts more truck diversions than the proposed merger itself. Even UP/NS's expert could not explain the models' illogical results at deposition.

85. ***First***, the same models predict that UP and NS would divert more trucks within their own networks without the merger than the merger itself would achieve. This nonsensical result confirms that the models artificially manufacture truck diversions and do not credibly establish that the merger will produce any.

86. Applied to existing UP and NS service territories, the same modeling framework would predict 5.5 million truck diversions—more than the 2.1 million predicted for UP-NS interline territory. This figure uses the exact same model mechanics, applied to UP and NS single-line territory: taking inflated target shares from only active lanes, applying them to low-performing lanes (whether single-line or interline), and counting only the upside of the distribution as diversions. If the models were right, UP and NS would already be winning millions more trucks off the highway than they are. Those trucks have not diverted, which shows that the model is structurally biased to produce diversions. A model this unreliable cannot credibly support any amount of truck diversions. The table below summarizes the results of running the diversion models on traffic that UP alone or NS alone may already serve.[92]

[92] The exact same target shares from the exact same archetype groups are applied to single-line lanes segmented the exact same way. The only change is that lanes currently with single-line service are treated as addressable lanes. Truck-to-intermodal predicted diversions do not reflect the final exclusions applied by UP/NS, which only reduce their predicted diversions by 4%. The remainder of the model functioning is unchanged.

Table 14[93]

	Truck Diversions UP/NS's Model Predicted for UP-NS	Truck Diversions UP/NS's Model Predicts for NS Local plus UP Local Territory
Intermodal	1.2 million trucks	2.4 million trucks
Merchandise	850k trucks (191k rail cars)	3.1 million trucks (715k rail cars)
Total	**2.1 million trucks**	**5.5 million trucks**

87. ***Second***, UP/NS's model has future UP-NS single-line territory winning far more rail share than existing single-line territory—an irrational outcome for a model that purports to generate diversions by raising interline shares to single-line levels. If the model's results were realized (and they will not be), UP-NS diversion lanes would achieve at least 10% more market share than all single-line lanes across each length of haul category.[94] UP/NS offers no reason why future single-line markets across the combined system would perform significantly better than existing single-line markets in the western or eastern United States. The model pushes UP-NS lanes well past the very single-line benchmark it claims to match, so part of the 2.1 million predicted diversions reflects this overshoot rather than any plausible merger effect.

88. ***Third***, by the model's own terms, {{ [redacted] }} of truck-to-intermodal diversions are on lanes where rail will cost more than truck.[95] There is no reason to expect a shipper to switch from faster, cheaper truck service to slower, more expensive service.

89. ***Fourth***, the truck traffic UP/NS predicts will divert to intermodal involves unusually long drays (the truck legs between the shipper's facility and the intermodal terminal), yet UP/NS does not explain what about the merger would induce shippers to accept such long

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[93] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 14."

[94] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Cites."

[95] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Cites."

drays. As Figure 17 summarizes, UP/NS's own Transearch-based analysis recognizes that more than [redacted] of intermodal drays are under 25 miles, yet fewer than [redacted] of diversions in its truck-to-intermodal model have drays under 25 miles.

Figure 17[96]{{

[redacted]

}}

90. ***Fifth***, small changes dramatically alter the models' outcomes. In the truck-to-intermodal model, changing only the assumed average trucking speed from 50 mph to 60 mph, which better reflects median U.S. trucking speed,[97] would eliminate {{ [redacted] }} of the truck diversions.[98] In the truck-to-merchandise model, using simple rather than weighted averages to

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[96] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Figure 17."

[97] The Federal Highway Administration (FHWA) published 2026 data indicating the median speeds for freight trucks range from 49mph to 68mph on interstates. *See* Zebrowski/Baranowski Workpaper "FHWA.csv."

[98] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Cites." Most of this reduction is due to the shifting of several addressable lanes from the 2000+ LOH, rail price within 10% of truck price, and rail transit time within 24 hours of truck transit time archetype to the equivalent archetype for rail transit time between 24 and 72 hours of truck transit time. There is only one archetype lane that falls into the latter archetype after the speed change is implemented, so UP/NS's model employs a filling process that gradually relaxes the matching criteria to generate

calculate target rail shares would reduce truck diversions from about 850,000 to about 93,000.[99] A model this unstable cannot credibly support any amount of truck diversions.

4.4.2. Truck diversions following the CP/KCS merger were limited.

91. The aftermath of the CP/KCS merger also indicates that a much lower range of truck diversions should be expected. Using a more typical regression-based methodology, CP predicted far fewer truck diversions than UP/NS—specifically, 64,018 compared to over 2.1 million predicted by UP/NS—yet CP/KC's actual diversions have fallen dramatically short of even those predictions.[100] Measured by purchase price, which represents the scope of the merger, the proposed UP/NS merger is almost three times the size of the CP/KCS merger. The table below calculates the truck diversions UP/NS would achieve if they are proportional to actual truck diversions actually achieved by CPKC.

Table 15[101]

	Annual Truck Diversions
Actual Annual Truck Diversions Achieved by CPKC Following Merger	23,424
Multiply by Size of UP/NS Transaction Relative to CP/KCS Transaction	X 2.74
UP/NS Truck Diversions if Proportional to CPKC Experience	= 64,227

a target market share. Therefore, the addressable lanes that shifted archetypes had target rail shares that decreased from 73% to 47%, significantly decreasing predicted diversions.

[99] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Cites."

[100] *See* "Verified Statement of Bengt Muten, FD 36500.pdf" on page 20.

[101] *See* Zebrowski/Baranowski Workpaper "Section 4 Exhibits.xlsx," tab "Table 15."

5. CLAIMED SHIPPER SAVINGS FROM TRUCK DIVERSIONS ARE OVERSTATED AND WILL NOT BE REALIZED.

92. UP/NS claims shippers will save over $3.5 billion by shifting freight from truck to rail. Shippers would see none of these claimed savings, and the estimate is not credible for three main reasons. First, $2.3 billion of the savings from truck-to-intermodal diversions results from a calculation mismatch with the diversion model itself. Second, the calculation ignores that most, if not all, of these savings are already attainable at rail rates observed in the marketplace today, without UP/NS's asserted lower single-line prices. Third, the truck diversions on which the savings are based will not occur. We explain each of these points below.

93. ***First***, the entire $2.3 billion in claimed truck-to-intermodal savings stems from calculation mistakes and mismatches. The diversions assume that UP/NS lanes will achieve the same rail market shares as archetype markets with, among other things, similar relative truck and rail prices. But as the table below shows, if UP/NS lanes actually resembled those archetypes, and all costs in the truck-to-intermodal diversion model (discussed below) were included, projected truck and rail prices would be almost identical.

Table 16[102]

Single Line Archetype Truck and Intermodal Costs for Diversions	
Drayage Cost	$0.76B
Rail Line Haul Cost	$2.74B
IMC Cost	$1.26B
Intermodal Cost	**$4.76B**
Long Haul Trucking Cost	**$4.75B**

[102] *See* Zebrowski/Baranowski Workpaper "Section 5 Exhibits.xlsx," tab "Table 16."

94. As Table 16 shows, applying the truck-to-intermodal diversion model's own price assumptions to the savings calculation would produce no savings. To avoid this result, UP/NS develops a separate calculation that predicts lower rail rates and inexplicably ignores IMC costs entirely.[103] Rather than using rail prices based on actual intermodal shipments between IANA regions, as UP does in its truck-to-intermodal diversion model, UP/NS runs a regression of average revenue per ton-mile using CWS data. And although UP/NS correctly recognizes in the diversion model that IMC costs are a necessary component, it omits them from the savings calculation.

95. ***Second***, UP/NS counts the entire difference between estimated future rail prices and truck prices as savings, ignoring savings already available today. For example, if truck rates are $6,000, interline rates are $3,001, and projected single-line rates are $3,000, UP/NS would count $3,000 in savings rather than the $1 reduction in the rail rate. By UP/NS's own math, most of the savings from switching from truck to rail are available today. UP/NS's "power curve" regression, which UP/NS uses to predict single-line and interline revenues, shows that switching from truck to interline intermodal would achieve 96% of UP/NS's predicted savings, and switching from truck to interline merchandise would achieve 78%.[104]

96. ***Third***, the savings will not materialize because the truck diversions will not occur. As explained in Section 4, UP/NS's truck diversion analysis is fundamentally unreliable. But even within that flawed model, the table below shows the shipper savings attainable under different

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[103] UP/NS's truck-to-rail diversion model calculates intermodal price as dray costs, rail costs, and IMC costs. *See* Verified Statement of David Hunt (Sept. 4, 2026) on page 141. UP/NS describes IMC costs as follows: "Purchased transportation (two drayage moves, one linehaul move) is not the full door-to door price paid by a shipper. Pricing to the shipper will include the intermodal marketing company (IMC)'s equipment, SG&A, and empty repositioning costs plus a profit margin. An outside-in analysis of J.B. Hunt's 2023 financial reports for its intermodal segment estimated gross margin at 36%, meaning the price to shipper is purchased transportation."

[104] *See* Zebrowski/Baranowski Workpaper "Section 5 Exhibits.xlsx," tab "Table 17."

assumed diversion rates after including IMC costs, using pricing assumptions consistent with the diversion model, and accounting for savings already available from switching to interline rail.

Table 17[105]

Diversion Achievement Rate	Truck Diversions	UP/NS Savings Estimate	Corrected Savings Estimate
100%	2,127,969	$3,480M	$253M
90%	1,915,172	$3,132M	$228M
80%	1,702,375	$2,784M	$202M
70%	1,489,578	$2,436M	$177M
60%	1,276,781	$2,088M	$152M
50%	1,063,984	$1,740M	$127M
40%	851,188	$1,392M	$101M
30%	638,391	$1,044M	$76M
20%	425,594	$696M	$51M
10%	212,797	$348M	$25M

97. This re-stated savings estimate conservatively does not account for upward rate pressure effects discussed elsewhere, which could have the effect of increasing rates.[106]

6. UP/NS SIGNIFICANTLY UNDERSTATES IMPACTS TO RAIL TRAFFIC FLOWS.

98. Existing traffic patterns and the effects of prior mergers strongly indicate that the UP/NS merger would have unprecedented effects on rail traffic flows and massively reduce interline service. Yet UP/NS's study of changes to rail traffic patterns—which by statute must cover "anticipated effects of the transaction on traffic patterns"—is limited to a highly suppressed estimate of how many rail units on a subset of affected lanes will divert to UP/NS routes from

[105] *See* Zebrowski/Baranowski Workpaper "Section 5 Exhibits.xlsx," tab "Table 17."

[106] *See* Section 14.

other routes on those same lanes. The study covers only {{ }} of the rail traffic the merger would affect and wrongly concludes that {{ }} of existing east-west rail traffic would be unaffected: it estimates that only about {{ }} out of {{ }} east-west units will divert and that most traffic would continue to use existing interline services.[108] In fact, the proposed UP/NS merger would affect nearly all of east-west rail shipments.

99. UP/NS's model parameters produce highly understated estimates. Because its rail-to-rail diversion study omitted about half of the traffic affected at the lane level, suppressed diversions for the portion it did analyze, and did not account for broader traffic pattern changes, most of the merger's effects on freight rail flows go unaddressed. Viewed correctly, UP/NS's own modeling shows that lanes with single-line routes very rarely receive interline service. UP/NS would therefore be the only realistic option for a large amount of east-west traffic that now uses multiple interline routes. Analyzing the additional effect of geographic competition on traffic patterns—which UP/NS expressly did not do—suggests that even greater changes to existing flows are likely.

6.1. Current traffic patterns and past merger effects indicate broad impacts and large reductions in interline services.

100. Existing rail traffic patterns and the traffic effects of past mergers indicate that the proposed merger would seriously affect rail flows and significantly reduce interline service. Most fundamentally, large rail networks very rarely interline with other large rail networks for freight

[107] Mr. Hunt estimates {{ }} total units will divert from existing rail routes, most of which travel on lanes with east-west interline routes. See Tables 16 and 17.

[108] The proposed merger would primarily effect the east-west interline market involving UP and BNSF in the west and NS and CSX in the east. Exhibit 6-2 of Hunt's VS shows over {{ }} of rail-to-rail diversions involve BNSF or CSX and only {{ }} involve CN or CPKC.

moving within territory they already serve. As the charts below show, there is {{ [redacted] }} interlining between the largest rail networks in the West or East today.

Figure 18[109]{{



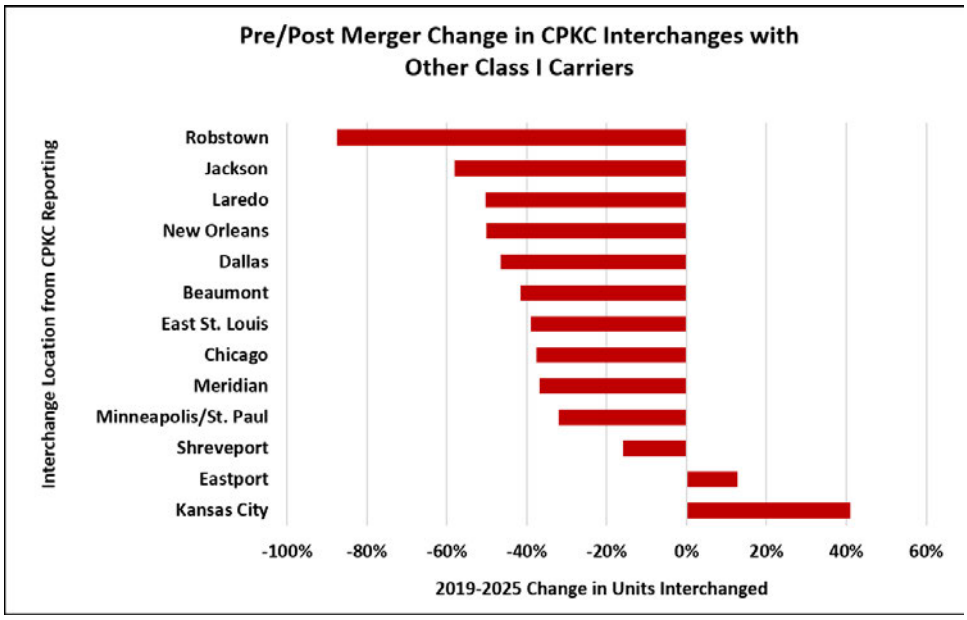
}}

101. The combined UP/NS system would likely keep at least as much freight on its own network as the largest networks do today. The largest rail networks almost always keep traffic within their own systems in territory they can serve, and the larger a network's territory, the less traffic moves outside it. This makes sense: broader networks connecting more locations have more options to balance regional supply and demand internally. The proposed merger would create by far the largest rail network in the United States, with far more track miles and service territory than any rail merger in history.

[109] *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.1 Figures."

102. The flip side of keeping more freight within a railroad's expanded territory is less interlining with other networks in that territory. Past merger precedent confirms this: as the figure below shows, interlining dropped sharply after the CP-KCS merger.

Figure 19[110]



103. The drop is {{ [redacted] }} for traffic moving within territories CPKC can access itself:

[110] *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.1 Figures."

Figure 20[111]{{



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104. Corridors where only CPKC can serve one end—i.e., where the only competing rail options are dependent interline routes—show {{ }}. The prime example is the intermodal corridor between Chicago and Mexico's manufacturing-rich San Luis Potosi region, which only KCSM serves; interline service there declined steeply immediately after the CP/KCS merger.

[111] *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.1 Figures."

Figure 21[112]{{



}}

105. Similar sharp decreases in interlining occurred following the mergers in the 1990s. Interlining dropped just as sharply after the 1990s mergers that created today's UP and BNSF systems.[113] As the chart below shows, interchanges between the two systems {{{ [redacted] }}} after consolidation.[114]

[112] *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.1 Figures."

[113] Similar effects likely followed the CN/IC and Conrail/NS/CSX transactions. We did not attempt to measure those effects here as the combined networks are larger, and due to difficulty tracing end-to-end routings necessary to properly identify changes in interline patterns as a result of rebilled waybills in the CWS.

[114] This decrease is likely understated as well. The number of interchanges between UP and BNSF predecessor systems is likely understated because more carloads [redacted] are rebilled/unknown from 1990-95 compared to 2005-10 [redacted]. See Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.1 Figures."

Figure 22[115] {{{

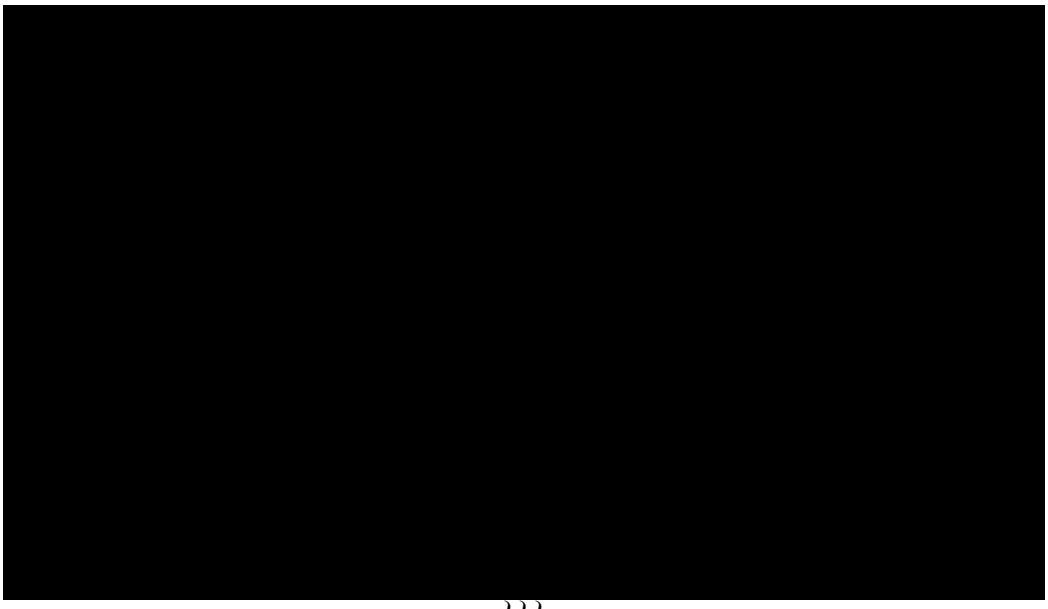


}}}

106. The interchange at Sweetwater, TX, established by predecessor railroads MP and ATSF, illustrates this decline in UP-BNSF interlining. Once UP gained a single-line route between the Gulf Coast and the West Coast and {{{ }}} offering interline service with BNSF, the interchange gradually {{{ }}}.

[115] Predecessor UP systems include UP, MP, SP, SSW, CNW, and DRGW. Predecessor BNSF systems include BN and ATSF. Rebilled/unknown shipments are not included. Thus, the decrease in interchanges is likely understated because more carloads were rebilled/unknown from 1990-95 compared to 2005-10 . *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.1 Figures."

Figure 23[116]{{{



}}}

107. As this interchange {{{ }}}, a single UP route replaced multiple active interline routes. The chart below illustrates this for movements between Plaquemine, LA and the Los Angeles area.

[116] Ibid.

Figure 24[117]{{{



}}}

108. Past mergers are the best real-world indicator of how traffic will respond to the proposed merger. In sum, existing traffic patterns and changes in rail flows after prior mergers provide strong grounds to expect that the proposed merger will reduce interline service and replace multiple interline routes with a single UP/NS option. The following sections explain how a series of mistakes and omissions keeps UP/NS's rail-to-rail diversion analysis from reaching this outcome. Though the central flaw in UP/NS's traffic study remains its overstatement of truck diversions, discussed in Section 4, these issues confirm that UP/NS understates the merger's effects on rail traffic flows.

6.2. UP/NS identifies only a fraction of affected rail traffic.

109. UP/NS's rail diversion study conspicuously lacks an overall view of affected rail traffic. In the latest of several revisions, UP/NS estimates {{ }} rail-to-rail diversion units, but that figure has limited value in isolation. Because an impact analysis aims to identify affected

[117] Ibid.

traffic flows and assess how a merger might change them, the proper starting point is to summarize all traffic flowing between the carriers' territories and broadly assess the railroad options now available. From there, lane-level analysis can determine how much traffic will shift routes, and geographic analysis can determine how much will shift lanes.

110. The proposed merger would most heavily affect rail traffic moving between the eastern and western United States, which usually moves on one of four major transcontinental interline routes using UP or BNSF in the West and NS or CSX in the East. Traffic moving on lanes where UP can serve one end and NS the other, but neither currently serves both, is most directly affected. So long as this type of lane has a UP/NS route and at least one realistic alternative route, the merger will directly affect traffic on this lane, and UP/NS's own modeling logic requires analyzing it.[118]

111. The table below places UP/NS's claimed carload rail-to-rail diversions (i.e., merchandise and bulk) in the context of traffic groups that the merger will affect differently based on their current and future railroad options. These groups capture all east-west traffic flows and encompass the diversions UP claims.[119] Even UP/NS's own estimates—although not clearly

[118] Specifically, UP/NS's logistics model predicts the pre-merger and post-merger traffic shares each route on a given lane will win, based on traffic shares among similar types of routes across similar types of lanes. For the model to functionally measure diversions on a given lane, that lane must have pre- and post-market predicted shares modeled among different route options, at least one of which has a UP/NS junction removed as a result of the proposed merger, which would cause the predicted shares to change and may result in the model identifying diversions. It follows that all traffic on lanes with a route involving an UP-NS interchange, and at least one other plausible route possibility, should be included in the diversion analysis.

[119] We use UP/NS's classification of origin and destination service. Using actual facility-specific service options in SCRS would shift more traffic into the groups with only one option, e.g., some traffic would shift from group #3 to groups #1 and #2.

shown in context of relevant traffic flows in its expert statement—make UP/NS the dominant provider where interline routes compete today.

Table 18[120]{{



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112. The first three groups contain much of the traffic that the UP/NS merger would affect at the lane level, and cover traffic that currently may use the UP-NS and at least one other of the four major transcontinental route options.[121] UP/NS's own work predicts it will have a {{{

[120] *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.2 Tables."

[121] While not discounting the importance of other affected traffic groups, we focus our lane-level analysis on east-west traffic involving the four major transcontinental routes.

[redacted] }}} share of this traffic following the merger. As discussed in the next section, even this already dominant share is likely understated.

113. To quantify the amount of intermodal traffic potentially affected by the merger, we use UP/NS's criteria for determining appropriate "catchment" areas and intermodal terminal options available on each end of a corridor.[122] The below table identifies potentially affected intermodal as domestic intermodal containers moving in corridors with an NS intermodal terminal on one end and a UP intermodal terminal on the other end.

Table 19[123]{{

[redacted]

}}

114. As discussed in the next section, UP/NS analyzed most east-west interline intermodal traffic for lane-level (i.e., corridor level for intermodal) effects but predicted that only a small share would divert. As discussed below, errors in the diversion model cause it to understate how dominant a provider UP/NS would be.

[122] *See* Verified Statement of David Hunt (Sept. 4, 2026) on pages 103 and 198.

[123] *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.2 Tables."

6.3. UP/NS understates lane-level impacts.

115. UP/NS significantly understates the transaction's lane-level impacts, both by omitting traffic on affected lanes and by suppressing the share of traffic on those lanes that will divert. Three major technical problems cause the models to incorrectly understate the amount of traffic that will divert to UP/NS. The three main problems causing bias are (1) skewing predictions due to a very small number of anomalous records in the calibration phase of the intermodal model; (2) failing to identify a complete set of route options in the application phase of the carload model; and (3) counting diversions at too granular a level to use pre- versus post- modelled differences.

116. ***First,*** UP/NS's merchandise and bulk rail-to-rail diversion models do not analyze much of the traffic likely to be affected at the lane level. Of the {{ [redacted] }} carloads on east-west lanes most likely impacted shown in Table 18 above, the model only includes a UP/NS route and at least one other feasible route for {{ [redacted] }}, which prevents the model from performing diversion analysis on the remaining portion.[124] Most of this traffic travels on lanes that have both UP/NS and other feasible routes, but the model's "pathfinding" process fails to identify them. For example, although the "pathfinding" process identifies UP-NS-AGR and UP-CSX-AGR routes on a lane, the model keeps only what it deems the best route between UP and AGR, and thus fails to analyze diversions on the two competing routes. Other errors include naming mismatches between "CPRS" and "CPKC" and identifying UP/NS routes in one stage of the model but not another. Re-running the model's "pathfinding" process on the {{ [redacted] }} carloads above with instructions

[124] As discussed above, the model's logic requires analyzing lanes with a UP/NS route and at least one feasible alternative route, so failing to identify both prevents the model from performing required diversion analysis. *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.3 Figures and Tables."

to identify the expected routes[125] adds many routes and leads to more diversions, but even then does not identify all feasible route options.[126]

117. ***Second***, the intermodal model's calibration is significantly distorted by three specific anomalies involving a handful of records in the model representing atypical situations. BNSF-CSX movements on lanes involving CSX haulage to and from Atlanta and Ohio are sometimes reported as single-line moves. Similarly, CSX-FEC movements on lanes to and from Miami are sometimes reported as single-line moves. In both cases, this creates the false impression that true interline routes are achieving {{ [redacted] }} traffic shares competing against true single-line routes, which leads the model to discount the influence of junctions. In fact, these lanes are anomalous situations not reflective of the future competitive landscape which the model is intended to predict, namely, east-west interline Class I routes competing against UP/NS routes. In the case of the corridor between Laredo and Detroit, the model makes it appear that interline routes win all traffic competing against the CPKC single-line route simply by failing to count CPKC traffic in this corridor (which originates or terminates at Mexican locations and thus is not reported at Laredo). Solely due to these three anomalies, the model significantly understates the predicted single-line traffic share.

118. ***Third***, the way the model counts diversions yields a total lower than its own predictions. The model caps diversions where current UP-NS shares exceed the prediction without

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[125] For example, we ran the "pathfinding" process specifically to identify whether there were BNSF-NS or UP-NS routes on a given lane in bucket #1, where we had already identified that BNSF and UP accessed the origin station and NS accessed the destination station.

[126] *See* Zebrowski/Baranowski workpaper "Section 6 Exhibits.xlsx," tab "6.3 Figures and Tables." Specifically, this increases the amount of carloads with diversion analysis performed from {{ [redacted] }} to {{ [redacted] }} of {{ [redacted] }}, although many of the lanes still without UP/NS and other route options appear to have both based on lanes we manually reviewed in PC Miler, which is a conventional rail routing software package.

accounting for the equal and opposite case where current UP-NS shares fall below it. As a result, the parts add up to less than the whole: calculated at a more aggregated level, diversions would be {{ [redacted] }} and would match the model's predicted post-merger share for UP-NS routes.

119. The table below illustrates the simple arithmetic that makes UP/NS's diversion estimate too low.

Table 20[127]

Hypothetical Nearby Lanes	Actual traffic distribution		Pre-merger predicted traffic distribution		Post-merger predicted traffic distribution		Counted UP-NS Diversions
	UP-NS	BNSF-NS	UP-NS	BNSF-NS	UP-NS	BNSF-NS	
#1 - East LA to Atlanta	0	100	50	50	100	0	50
#2 - West LA to Atlanta	100	0	50	50	100	0	0

120. On the first lane, the model counts the modeled pre- to post-merger difference of 50 cars on UP-NS as diversions; on the second lane, because all cars already move on UP-NS, the same 50-car difference cannot be counted. Thus, there are only 50 counted diversions, and UP/NS carries 150 of 200 total cars on these two lanes post-merger (50 cars diverted to UP/NS on the first lane plus 100 cars already travelling on UP/NS on the second lane), despite the model predicting all 200 cars travelling on UP/NS.

121. UP/NS's diversion-counting approach is unnecessary because the model already predicts UP/NS's share of traffic accurately. UP/NS claims this approach is necessary to control for unmeasured market conditions. However, UP/NS's original rail-to-rail diversion analysis shows there is not any strong overall bias to address. Specifically, of the traffic analyzed, the model

[127] *See* Zebrowski/Baranowski workpaper "Section 6 Exhibits.xlsx," tab "6.3 Figures and Tables."

predicted that about 725,000 units would travel on UP-NS routes in the pre-merger scenario, which is reasonably close to the actual amount of 782,000.[128]

122. UP/NS fails to recognize that the model introduces bias at the lane level by capping diversions on lanes with little or no UP-NS traffic without offsetting them with diversions on lanes with much or all UP-NS traffic. Because nearly all station-to-station traffic moves exclusively on one route, this bias significantly affects the carload model and pushes counted diversions far below the model's own predicted post-merger outcomes.

123. The intermodal model, which runs at the BEA-to-BEA level, largely avoids this problem because traffic is not distributed in the same all-or-nothing way on individual lanes.[129] To show how modeling market shares across larger corridors rather than individual lanes avoids the problem, the table below applies UP/NS's diversion counting process to the two example lanes combined. The problem disappears: UP/NS's counting approach and the predicted post-merger figures yield the same post-merger UP-NS traffic, namely, counting 100 UP/NS diversions, which results in UP/NS carrying 200 total cars on these lanes as predicted.

Table 21[130]

Hypothetical Nearby Lanes Modelled Together	Actual traffic distribution		Pre merger predicted traffic distribution		Post merger predicted traffic distribution		Counted UP-NS Diversions
	UP-NS	BNSF-NS	UP-NS	BNSF-NS	UP-NS	BNSF-NS	
LA to Atlanta	100	100	100	100	200	0	100

[128] *See* Verified Statement of David Hunt (Dec. 19, 2025) on page 98. The section discussing this outcome was not included in Mr. Hunt's April 29, 2026 verified statement.

[129] *See* Zebrowski/Baranowski workpaper "Section 6 Exhibits.xlsx," tab "6.3 Figures and Tables."

[130] *See* Zebrowski/Baranowski workpaper "Section 6 Exhibits.xlsx," tab "6.3 Figures and Tables."

124. There is no reason to suppress diversions through a biased counting mechanism. The model's predicted post-merger shares—which, as discussed above, do not reflect any overall uncontrolled bias—are therefore a more reliable measure of its results. Instead, the model's prediction of UP/NS share after the merger is appropriate. On typical lanes where a future UP/NS route would compete against a dependent interline route, the rail-to-rail diversion model viewed correctly shows the UP/NS route winning over 90% of the traffic.

Table 22[131]

	Single Line Versus Interline Route – 1,000 Miles Each	**Single Line Versus Interline Route – 2,000 Miles Each**
Merchandise	92%	88%
Intermodal	97%	93%

125. UP/NS's own modeling shows that interline routes do not win meaningful shares on lanes served by a single railroad.

6.4. UP/NS ignores geographic impacts, which will be significant.

126. UP/NS's traffic study does not consider geographic effects on traffic patterns,[132] even though the merger rules require, for "each major commodity, an analysis of traffic flows

[131] *See* Zebrowski/Baranowski workpaper "Section 6 Exhibits.xlsx," tab "6.3 Figures and Tables." Intermodal coefficients are updated to remove Miami markets involving FEC, the Laredo to Detroit corridor, and reclassify BNSF-CSX moves involving Ohio and Atlanta as interline moves.

[132] *See* Verified Statement of David Hunt (Sept. 4, 2026) on page 70 (describing the rail-to-rail diversion model assumption that "[t]raffic origins and destinations remain fixed; source competition not modeled"); *id.* on page 58 (describing the truck-to-rail diversion model assumption that "[t]raffic O/Ds remained fixed. Source competition/geographic substitution not modeled"). Although the UP/NS model allows diverted traffic to use different intermodal terminals or automotive facilities within the same origin or destination region, that flexibility merely permits

indicating patterns of geographic competition."[133] Geographic effects occur when goods ship to different places because transportation options change—for example, when an origin facility sells to a buyer at a different destination, or a destination buyer purchases from a different origin. Many freight rail flows constantly shift between origin sources and destination markets; over {{ [redacted] }} of carload traffic in 2024 moved on different lanes than in 2023.[134]

127. There are strong grounds to expect traffic flows to change, particularly for facilities served solely by UP or NS that now interline with other railroads. For example, a receiver at a sole-served NS facility that now sources a commodity from a BNSF origin may instead source it from a UP origin. Shifts like this would take traffic away from origins and destinations on other railroads and leave shippers with fewer sourcing options. Geographic effects are most likely for east-west traffic that UP/NS serves on one end but not the other, or that is served on both ends without a feasible UP/NS route. This traffic falls in group #6 of Table 18 above, along with traffic in groups #1 and #2 that UP/NS's lane-based diversion analysis excludes for lack of a feasible UP-NS route (which we conservatively do not include). The table below identifies the portion of this traffic that is most likely to shift geographically because UP/NS is the only option at one end.

alternative lanes within the same corridor; it does not capture changes in traffic patterns caused by shippers shifting to different origin sources or destination markets.

[133] *See* 49 CFR § 1180.7(b)(4)

[134] *See* Workpaper "Origin and Destination Shift.xlsx."

Table 23[135]{{



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128. Existing traffic patterns show that a large railroad network rarely sources a commodity from a location on another network serving the same territory, even when that network has ample supply of the same commodity. The chart below shows where UP has origin supply of a commodity that could meet destination demand on BNSF, or vice versa, but does not. For example, if UP originates at least as much of a commodity as BNSF terminates, but less than ten percent of it moves from UP origins to BNSF destinations, we identify UP's shipments of that commodity within the West as moving primarily within UP's network.

[135] *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.4 Figures and Tables

Figure 25[136]{{



}}

129. NS and CSX likewise {{ }} move traffic over each other's networks in the East, as the chart below shows.

Figure 26[137]{{



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[136] *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.4 Figures and Tables

[137] *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.4 Figures and Tables."

130. Our analysis therefore shows that although UP and BNSF, or NS and CSX, could interline specific commodities, in practice these options {{ [redacted] }}; instead, even though railroads routinely offer successful interline services to access markets they are unable to serve alone or to meet customer service needs and demand, railroads likewise migrate toward not interlining when already able to serve markets directly.

131. We can size the merger's geographic effects by comparing the total amount of a commodity UP forwards to other Class I systems with the total amount of the same commodity NS receives from other Class I systems (or the reverse). To the extent legacy UP can forward, and legacy NS can receive, more of that commodity within the combined network, there is an opportunity for lane shift. For example, if UP now forwards 100 carloads to CSX, and NS now receives 90 carloads of the same commodity from BNSF, UP could redirect 90 of its 100 carloads to NS, which would then no longer receive those 90 carloads from BNSF. Applied across all carload commodities, this logic shows that UP/NS could shift interline flows enough to remove practically all traffic from UP-CSX and BNSF-NS routes, meeting demand from supply sources on its own network.

Figure 27[138]{{



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132. The charts above show that most east-west carload flows involve commodities for which UP/NS would have the opportunity to redirect flows onto its own network, displacing interline flows with other railroads. Current traffic patterns and the post-merger precedent discussed above indicate that a {{ }} shift is most likely.

133. UP/NS's rail-to-rail diversion framework can be adapted to identify the portion of east-west traffic likely to shift to UP/NS routes. The model now evaluates route impedance within a particular origin-destination lane, but the same logic applies to routes from various origins that could supply the same commodity to a given destination (or, conversely, to the various destination markets to which a given origin could sell). For example, if a closed NS destination sources all 100 carloads from a closed BNSF origin with a route impedance of, say, 5,000, but a UP origin supplying the same commodity has a route with lower impedance, the model would predict traffic

[138] *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.4 Figures and Tables."

shifting to the lower-impedance lane. To approximate the potential geographic shift, we identified all traffic in Table 24 moving on BNSF-NS lanes where UP-NS would have a lower-impedance route from UP origins shipping enough qualifying volume of the same commodity to meet demand on that BNSF-NS lane. We conservatively defined qualifying volume as only volume currently forwarded to other Class I systems; that is, we did not assume these origins could supply additional volume.

134. We applied the same logic to all carload moves on the BNSF-NS and CSX-UP east-west routes, as summarized in the table below.

Table 24[139]

Current Freight Flow	**Geographic Alternative**	**Total Traffic**	**Portion With UP-NS Route To/From Alternative Market With Lower Impedance**
BNSF origin supplying NS destination	***UP origin*** supplying NS destination	{{ [redacted]	[redacted]
UP origin supplying CSX destination	***UP origin*** supplying NS destination	[redacted]	[redacted]
CSX origin supplying UP destination	***NS origin*** supplying UP destination	[redacted]	[redacted]
NS origin supplying BNSF destination	***NS origin*** supplying UP destination	[redacted]	[redacted]
Total		[redacted]	[redacted] }}

[139] *See* Zebrowski/Baranowski Workpaper "Section 6 Exhibits.xlsx," tab "6.4 Figures and Tables."

7. THE PROPOSED MERGER WILL REDUCE FOUR EQUAL TRANSCONTINENTAL ROUTES TO ONE DOMINANT ROUTE.

135. Together, the lane-based and geographic traffic impacts on existing east-west interline traffic will produce a {{ [redacted] }} realignment of rail freight flows, reducing four transcontinental routes to one dominant UP/NS option. Just as western shipments on BNSF or UP {{ [redacted] }} move over the other's network, and eastern shipments on NS or CSX {{ [redacted] }} move over the other's network, shipments on a coast-to-coast UP/NS system can reasonably be expected to {{ [redacted] }} move over other networks.

136. Today, east-west interline carload traffic among the four largest railroads moves in roughly {{ [redacted] }} shares over the four transcontinental routes, while intermodal traffic is {{ [redacted] }} weighted toward NS. The lane-level and geographic effects described in Section 6 would shift a large share of this traffic onto UP/NS. To project the merger's effect on this distribution, we incorporate both the traffic projected to shift under the geographic analysis and rail-to-rail diversions from UP/NS's modeling process.[140] The following chart shows the projected effects on the distribution of east-west traffic across the four transcontinental routes.

[140] These projections are based on the rail-to-rail diversion model's predicted amount of traffic on UP/NS routes following the merger and include the effects of adding feasible routes not included in UP/NS's output but generated by the "pathfinding" process and correcting the three specific errors related to calibrating the intermodal model discussed above. A full re-statement of UP/NS's rail-to-rail diversion analysis that comprehensively identifies available route options would lead to a higher projected traffic shift to UP/NS.

Figure 28[141]{{



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137. The proposed merger will likely shift traffic {{ largely }} off UP-CSX and BNSF-NS routes and realign east-west freight flows wholesale from four transcontinental routes to one dominant UP/NS route. For shippers, this means going from four competing transcontinental routes to effectively one dominant route, with the three remaining non-UP/NS routes carrying less traffic to support frequent, efficient service.

8. UP'S PROPOSED CONDITIONS WILL NOT PRESERVE EXISTING TRANSCONTINENTAL ROUTES

138. UP/NS states that it would keep gateways open on commercially reasonable terms, and it separately offers a haulage program, committed gateway pricing ("CGP"), for a limited amount of interline traffic and for a limited period of time inclusive of the three-year transition period. The two proposed conditions would have minimal effects and would not preserve the existing transcontinental routes.

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[141] *See* Zebrowski/Baranowski Workpaper "Section 7 Exhibits.xlsx," tab "Figures."

139. ***First***, open gateway commitments have generally failed to preserve interline traffic flows. Such commitments offer little protection for existing interline routings because, without a defined standard or enforcement mechanism, a shipper or connecting carrier would have no practical way to show that UP/NS had breached them. As the meager interline traffic in single-line territory discussed in Section 6.1 indicates, there is no clear case where gateway commitments based on "commercially reasonable rates" or similar terms have preserved meaningful amounts of pre-merger interline traffic. Although the STB conditioned the CP/KCS merger on keeping gateways open at commercially reasonable rates, and strengthened that condition by requiring CPKC to justify gateway rate increases above inflation, interline traffic in CPKC territory has already fallen steeply. Similar conditions have failed even when targeted at very specific groups of traffic. In the 1999 CN/IC merger, the STB specifically required CN to keep its Chicago interchange with CP "open and competitive" for grain moving to the Gulf Coast.[142] Immediately after the merger, CP-CN grain traffic in this corridor dropped {{{[redacted]}}}, and within ten years it {{{[redacted]}}} entirely. The chart below shows total grain forwarded from CP to CN at Chicago bound for the Gulf Coast, most of which originated in North Dakota.

[142] "North Dakota…is concerned that after the merger, CN would close or restrict its Chicago gateway for grain movements. North Dakota claims that CN would do this to discourage North Dakota grain shipments so as to favor its new single-line movements of grain from CN origins in Western Canada to destinations on or near the Gulf of Mexico…According to applicants, CP interchanged a very substantial amount of grain with IC at Chicago in 1996 alone. Applicants have stated that they have no intention of closing the CP/IC gateway. Given this assurance, we will impose a condition holding applicants to their representation to keep this gateway open and competitive." STB 5/21/1999 CN/IC decision on page 158.

Figure 29[143]{{{



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140. ***Second,*** CGP applies to too small a fraction of traffic, for too short a time, and at too high of rate levels to have any meaningful effect on overall traffic patterns. UP/NS claim CGP would provide rates that let interline services compete for a small amount of east-west traffic, and extend the benefits of single-line service to customers who could not otherwise access them. Beyond limiting eligible traffic, UP/NS's CGP proposal would be available for only five years after merger approval, while the merger's competitive effects would last far longer. According to UP/NS, CGP will apply only to manifest carload shipments between a UP/NS sole-served facility on one end and a facility BNSF or CSX can serve on the other, and only if the shipment is interchanged at one of four locations. That excludes many customer locations and all intermodal traffic. As the table below shows, CGP therefore applies to only a small percentage of U.S. rail traffic today.

[143] *See* Zebrowski/Baranowski Workpaper "Section 8 Exhibits.xlsx," tab "Figures."

Table 25[144]

% of Total US Units Eligible	{{ [redacted] }}
% of Total Class I Interline Units Eligible	{{ [redacted] }}

141. More than half of that small fraction would immediately see rate increases, because the CGP haulage payments would exceed the interline division UP or NS now receives, leaving only {{ [redacted] }} that may realistically benefit. Even if this fractional share of rail traffic achieved traffic distributions consistent with fully effective open gateway conditions, the impact would not meaningfully preserve the existing transcontinental routes.

142. ***Third,*** the above projection that UP/NS will dominate the four transcontinental routes already reflects the highly unlikely scenario that conditions will work and gateways will be kept fully open. In other words, if conditions do not work and gateways are not kept fully open, the extent of UP/NS dominance will be even greater. Because UP/NS's rail-to-rail diversion model is trained exclusively on rare cases where dependent interline services win traffic on lanes served by a single railroad, the model predicts future traffic distributions that reflect a state where dependent interline lines always compete, i.e., where gateways are always kept open and never foreclosed. Specifically, the model is set up this way because UP/NS eliminates "multicarrier routes where the origin or termination railroad can offer local service in the market" when developing other feasible routes.[145]

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[144] *See* Zebrowski/Baranowski Workpaper "Section 8 Exhibits.xlsx," tab "Tables."

[145] The model bases traffic predictions based on evaluating how traffic on a given lane is distributed among route options, which includes routes that are currently used plus other feasible routes. Omitting feasible dependent interline routes from calibration prevents the model from recognizing how rarely dependent interline routes are used on lanes served by a single railroad. UP/NS's expert witness recognizes how excluding unused routes causes bias. "If Railroad A had 100 cars historically and Railroad B had zero cars for a particular service type/lane combination, excluding the zero-volume route would bias the model by excluding a valid real-world result in

9. UP/NS'S OWN PROJECTIONS SHOW THAT UP/NS WOULD DOMINATE U.S. RAIL TRAFFIC.

143. The merger's traffic impacts would give UP/NS a significant share of all U.S. rail shipments. Based on UP/NS's own traffic projections and publicly reportable aggregated CWS data, Table 26 shows that UP/NS would originate 50% of all U.S. rail shipments, accounting for 48% of all freight rail revenues.

Table 26[146]

	Originated Rail Units	Freight Revenues
2023 Other Class Is	12,509k	$44.4 billion
2023 UP & NS	10,451k	$35.8 billion
Amended App. Growth From Truck	1,397k	$3.4 billion
Post Merger Class I Total	**24,357k**	**$83.6 billion**
Rail-to-Rail Diversion Units	467k	n/a
Amended App. Growth From Rail	292k	$615 million
Post Merger UP/NS Total	**12,140k**	**$39.8 billion**
UP/NS Market Share	**50%**	**48%**

144. Even before accounting for traffic impacts, the combined UP and NS systems would have a large traffic share, including in many regional and commodity markets well above 50%. For example, the combined UP/NS would originate 85% of intermodal shipments to and from Pennsylvania, 80% of metal products shipments to and from Indiana, 80% of automobile

developing the pre-merger baseline." *See* Verified Statement of David Hunt (Sept. 4, 2026) on pages 13 and 104.

[146] *See* Zebrowski/Baranowski Workpaper "Section 9 Exhibits.xlsx," tab "Table 26."

shipments to and from Missouri, 70% of chemicals shipments to and from Texas, and 55% of farm products to and from Kansas.[147]

145. The combined UP and NS systems would also generate {{ [redacted] }} of all Class I revenues to or from closed shipper locations, before traffic impacts.[148]

PART II – UP/NS'S CLAIMED SERVICE BENEFITS ARE ACHIEVABLE TODAY, AND THE OPERATING PLAN IS INCAPABLE OF SUPPORTING THE SERVICE ASSURANCE PLAN.

146. In this section we show that interline coordination may achieve most of the limited improvements outlined in UP/NS's operating plan, explain that the main operational change of the proposed merger would be to grant UP/NS an outsized influence on gateway interchange operations, and identify flaws and shortcomings that make UP/NS's operating plan and service assurance plan unreliable.

10. CLAIMED IMPROVEMENTS IN THE UP/NS OPERATING PLAN ARE OVERSTATED AND ALREADY OFFERED BY INTERLINE SERVICES.

147. UP/NS assert that a merger is necessary to unlock improved service because independent railroads otherwise lack the economic incentive to cooperate on interline service at the transit time standards UP/NS promise.[149] But a closer look at both rail service today and UP/NS's planned operations shows that interline cooperation already regularly achieves many of the operational benefits UP/NS tout. Section 10.1 shows that existing interline services already match or beat the transit times of UP/NS's new trains. Section 10.2 shows that existing interline

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[147] *See* Zebrowski/Baranowski Workpaper "Section 9 Exhibits.xlsx," tab "Cites."

[148] *See* Zebrowski/Baranowski Workpaper "Section 9 Exhibits.xlsx," tab "Cites."

[149] *See* Verified Statement of Eric Gehringer and John F. Orr (Sept. 4, 2026) on pages 3-5 and 81-2.

interchanges are routinely faster than UP/NS assume. Sections 10.3 to 10.5 put in perspective the limited scope of the proposed changes to train plans, blocking plans, and handlings. Section 10.6 shows that these minor changes do not deliver the service improvements needed to support the claimed growth. Overall, the breakthroughs UP/NS tout are not extraordinary and could largely be achieved without a merger.

10.1. Existing interline services already perform better than new UP/NS intermodal trains.

148. UP/NS's primary claim is that the merger would reduce transit times for traffic on lanes that now move in UP-NS interline service. UP/NS further claim this benefit would let them divert traffic to the combined network in a way not possible without a merger.

149. One of UP/NS's key claims, presented in the Operating Plan, is that they can cut intermodal transit times by 17 to 19 hours between Southern California and the Northeast and by 70 to 95 hours between California and the Southeast.[150] UP/NS attribute these improvements to improved routing and eliminating the UP-NS interchange at a mid-continent gateway.

150. UP/NS's proposed new train services and claimed transit time improvements from those new intermodal services ignore carriers' demonstrated ability to reduce transit times when warranted. For example, in the Growth Plan UP/NS introduce ZCICX and ZCXCI, a train pair between Los Angeles (City of Industry) and Croxton with projected transit times of 95 hours eastbound and 99 hours westbound.[151] The Operating Plan provides no supporting calculations for

[150] *See* Verified Statement of Eric Gehringer and John F. Orr (Sept. 4, 2026) on page 4.

[151] *See* Verified Statement of Eric Gehringer and John F. Orr (Sept. 4, 2026) on pages 226-27.

these times. Assuming they are accurate, UP/NS claim these services will save 17 hours eastbound and 19 hours westbound.[152]

151. Car event data, however, show that existing BNSF-NS interline service in the same lane is already faster. As Figures 30 and 31 below show, for high-volume intermodal customers, BNSF-NS train pairs LACNYC-26X (eastbound) and 29G-WSPLAC (westbound) have median transit times better than those UP/NS propose.

Figure 30[153]{{



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[152] *See* Verified Statement of Eric Gehringer and John F. Orr (Sept. 4, 2026) on page 4.

[153] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Figures."

Figure 31[154] {{



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152. UP and NS's own interline services today also outperform the projections in their merger application. In the Growth Plan, UP and NS introduce two westbound trains between Southern California and the Southeast: ZIEJX between Inland Empire and Jacksonville in 83 hours[155], and ZLAAT between Los Angeles and Atlanta in 73 hours[156]. UP/NS claim these services will save approximately 70 hours between Southern California and the Southeast[157]. Yet, as Figures 32 and 33 show, UP and NS already achieve similar or better transit times with their existing ZLAAI-28J interline train pair.

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[154] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Figures."

[155] *See* Verified Statement of Eric Gehringer and John F. Orr (Sept. 4, 2026) on page 229.

[156] *See* Verified Statement of Eric Gehringer and John F. Orr (Sept. 4, 2026) on page 231.

[157] *See* Verified Statement of Eric Gehringer and John F. Orr (Sept. 4, 2026) on page 4.

Figure 32[158]{{



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Figure 33[159]{{



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[158] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Figures."

[159] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Figures."

153. Through effective interline cooperation, carriers can achieve transit times that UP/NS claim only a merger can deliver. Beyond the examples above, the verified statement of Mr. Craig Morehouse details several recent interline partnerships among Class I carriers that have reduced transit times. These partnerships show that, contrary to UP/NS's premise, the economic incentives and operational ability to improve interline performance exist today.

10.2. UP/NS overstates interchange time savings.

154. While UP/NS identify eliminating time-consuming interchanges as a primary merger efficiency enabling transit time reductions,[160] gateway interchanges today are routinely much faster than UP/NS assert. Intermodal interchanges take far less than both the 22-hour overall average UP/NS assume and the approximately {{ [redacted] }} hour per interchange assumption in their truck-to-rail[161] and rail-to-rail models.[162] For carload shipments, for which the UP/NS assumed interchange times range from {{ [redacted] }} hours, the time saved by removing an interchange must be weighed against the time added when an intra- or inter-train switch is still necessary.

155. UP-NS intermodal interchanges are already much faster than UP/NS's modeling assumes interline cooperation can achieve. Figure 34 below shows the 2023 distribution of interchange times for the 10 largest UP-NS intermodal customers by volume. UP/NS themselves

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[160] *See* Verified Statement of Eric Gehringer and John F. Orr (Sept. 4, 2026) on page 81.

[161] *See* Verified Statement of David Hunt (Sept. 24, 2026) on page 29. "Using railroad performance data reported to the Board, the average system terminal dwell time of 22 hours (excluding cars on run-through trains) provides a good approximation for the time a railcar or container spends at each interchange."

[162] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Tables and In-Text."

regularly interchanged containers for high-volume shippers in under {{ }} hours (already achieved at every gateway) and achieved a median interchange time of {{ }} hours.

Figure 34[163] {{



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156. UP-NS interchanges are not alone in streamlining interchange times when customer demand warrants. BNSF-NS interchanges also {{{ }}}. Figure 35 shows the same comparison for the top 10 BNSF-NS intermodal customers by volume in 2023.

[163] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Figures." Interchange time measures when a container first enters and last leaves a gateway yard.

Figure 35[164]{{



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157. As Figure 35 shows, BNSF and NS achieved a median interchange time through major east-west gateways of {{ }} hours for intermodal traffic and interchanged a significant portion of that traffic much faster. As with UP-NS intermodal interchanges, the largest concentration of intermodal traffic takes less than {{ }} hours to interchange, a time already being achieved at each gateway.

158. The clearest sign that existing UP-NS intermodal interchanges do not hinder service is that the average velocities of UP single-line intermodal service match overall transit velocities for interline intermodal services. The chart below compares transit times by length of haul for UP-NS interline and UP single-line intermodal movements derived from observed train event data and shows that UP-NS interline movements run at {{{ }}} end-to-end velocities, including intermediate dwell, than UP single-line movements.

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[164] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Figures." Interchange time measures when a container first enters and last leaves a gateway yard.

Figure 36[165]{{



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159. For carload interchanges, UP/NS's dwell assumptions are more realistic, but eliminating interchanges does not necessarily improve transit time as UP/NS claim.[166] Where today's interchange moves a railcar or block from one carrier's linehaul train to another carrier's, and the future operation moves the railcar or block from one linehaul train to another of the same carrier, there is unlikely to be any meaningful time savings. As the figure below shows, yard

[165] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Figures." This comparison covers intermodal containers travelling between 1,600 and 2,600 miles where there are sufficient volumes of both UP and UP-NS intermodal shipments to develop representative statistics (generally over {{ }} shipments in each 100-mile increment). Miles per hour calculated as transit time measured by train departure at the origin terminal to train arrival at the destination terminal reported in container event data divided by actual operating miles reported in traffic tape data. Chart summarizes miles per hour based on median velocity across container moves within a 100-mile increment.

[166] *See* Verified Statement of Eric Gehringer and John F. Orr (Sept. 4, 2026) on page 91. "Eliminating interchanges at mid-continent gateways will immediately improve transit times for this traffic."

switching of cars or blocks between linehaul trains takes {{{ [redacted] }}} as a gateway interchange between carriers.

Figure 37[167]{{



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160. To the extent other switches among UP/NS linehaul trains replace eliminated interchanges, any time savings UP/NS claim are significantly overstated. In addition, as discussed in the following sections, UP/NS's train and blocking plans {{ [redacted] }} for UP/NS interline shipments, and most of the reported savings in handlings are {{ [redacted] }} that the merger technically does not affect. More importantly, any blocking efficiencies for most east-west UP/NS interline traffic

[167] *See* Zebrowski/Baranowski Workpaper "Figure 37.xlsx," tab "Figure." Interchange time measures when a container first enters and last leaves a gateway yard. I&I time measures between when a container enters a yard on one linehaul train and leaves the yard on another linehaul train. This measure is inclusive of block swap switches but not of run-through trains.

would be muted because the shipments will still move through gateways on trains with planned stoppages for yard work, crew changes, or train changes at those locations.

10.3. Most UP/NS east-west traffic will still run through and stop at gateways.

161. UP/NS claim that the merger will improve their ability to run single-line trains through the congested mid-continent gateways, which they assert is otherwise impractical without shared ownership of assets.[168] In the Optimized and Growth Plans, UP/NS alter or add trains they claim can capitalize on the combined network configuration, resulting in a total of {{ }} trains in the Growth Plan that cross from UP to NS territory that did not in the Base Plan. But the MultiRail train plans for these {{ }} new "Gateway" trains show that most would operate almost identically to today's interline service, stopping at gateways and other intermediate locations to pick up or drop off blocks or locomotives, change crews, or undergo inspections. A single-line train that still stops at the gateway for crew changes and other work saves little of the time UP/NS promise. And because UP/NS's MultiRail model does not account for train dwell at any planned stop, the actual dwell and overall transit time savings cannot be derived.

162. As shown in Table 27 below, of the {{ }} new Gateway trains, {{ }} have a crew change scheduled at a UP–NS gateway and {{ }} have a work event for picking up or setting off cars or blocks. The two new trains that do not show specific stops at gateways are at {{

[168] *See* Verified Statement of Eric Gehringer and John F. Orr (Sept. 4, 2026) on page 92. "The planned changes to current traffic flows centrally involve creating new trains with deeper network blocking while optimizing movements through midcontinent gateways. The new trains do not increase the total number of trains moving over the combined network, but instead follow more efficient routes and implement more efficient train and blocking plans for moving the same traffic between the same points."

[redacted] }} where UP and NS tracks connect. Crew changes and other related work events for those trains occur in MultiRail at nearby {{ [redacted] }}[169].

Table 27[170]{{

Gateway	Trains Added	Work Stop at Gateway?	Any Stop at Gateway?
Chicago, IL	7	4	7
New Orleans, LA	6	0	6
Kansas City, MO	5	3	5
Memphis, TN	4	1	4
Shreveport, LA	3	3	3
Sidney, IL	2	0	0
St. Louis, IL	1	0	1
Total	**28**	**11**	**26**

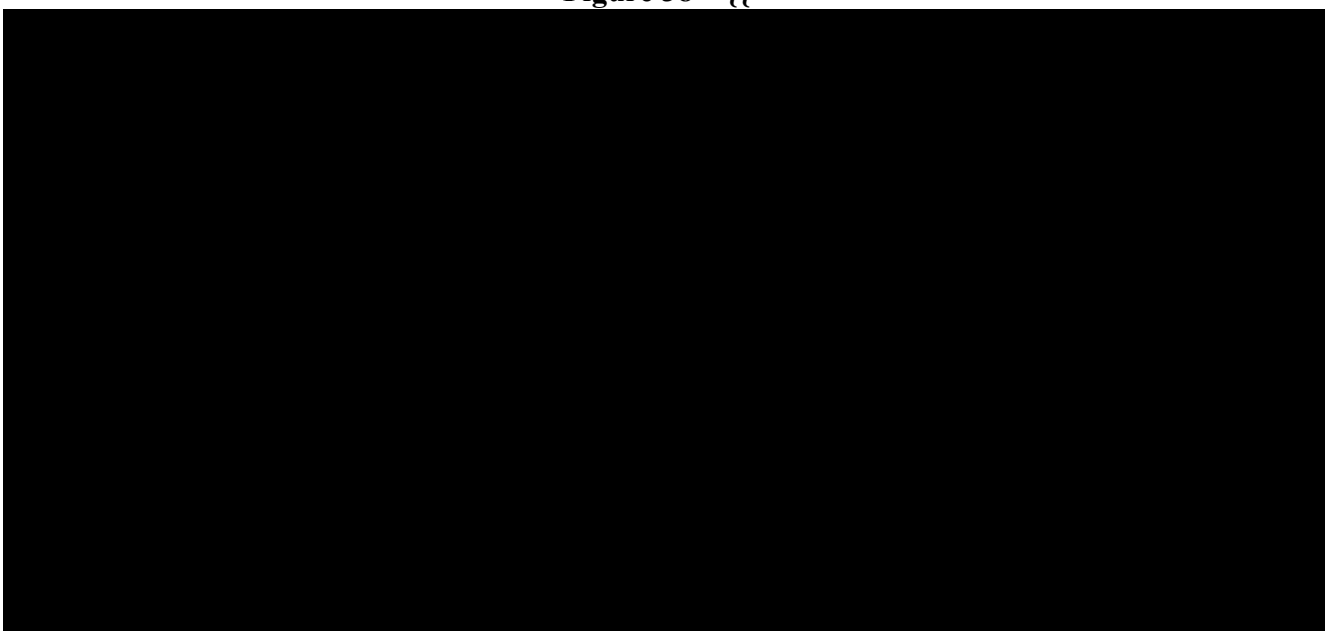
}}

163. Virtually all UP/NS east-west traffic would continue to move through the same gateways. Figure 38 below depicts all manifest carload traffic modeled in UP/NS's Base Plan that currently moves in UP-NS or NS-UP interline service. As expected, volumes are funneled into and then emanate from each of the five major gateways.

[169] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Tables and In-Text."

[170] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Tables and In-Text."

Figure 38[171]{{



}}

164. The Optimized Plan changes gateways for only a handful of lanes, and nothing prevents UP or NS from making those changes without a merger. Figure 39 below shows the origin-destination lanes averaging {{{ }}} that UP/NS's post-merger Optimized Plan assumes would move through a different gateway than in the Base Plan. It confirms two points: (1) only a handful of lanes are assumed to change gateways, and (2) only one of the gateways those lanes use could be considered new. Specifically, the map shows {{ }}[172]. Sidney is where the eastern UP line between St. Louis and Chicago connects with the NS line between Springfield, IL and Lafayette, IN, and {{

[171] *See* Zebrowski/Baranowski Workpaper Folder "Figures 38 and 39."

[172] *See* Zebrowski/Baranowski Workpaper Folder "Gateway Map Data.xlsx," tab "Opt Change New Map."

}} station. UP or NS could shift these lanes to a different gateway, or block through to Sidney, IL, on their own.

Figure 39[173]{{



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165. In addition to virtually all existing UP/NS east-west traffic continuing to move through the same gateway locations, the large majority of this traffic will also continue to travel on trains operated today, or at best new trains that still stop to perform yard work at gateways. The table below summarizes the portion of UP/NS's existing and projected growth east-west traffic that is at some point handled by newly added linehaul trains added in the optimized or growth plans.

[173] *See* Zebrowski/Baranowski Workpaper Folder "Figures 38 and 39."

Table 28[174]{{



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166. This table shows that, under UP/NS's operating plan, the {{ [redacted] }} of both UP/NS's existing and projected growth east-west traffic would move through gateways on trains that already operate today or, in some cases, ride on newly added trains that still stop at gateways to perform yard work.

10.4. Many of the "deep" east-west blocking arrangements UP/NS claim can only occur with a merger are already in use.

167. UP/NS's blocking claims, like their interchange and transit time claims, are overstated, and the claimed improvements can be achieved without a merger. UP/NS tout "deeper" blocking in the Optimized Plan as a significant merger benefit, but it is a less dramatic change from the status quo than they suggest, for two reasons. First, as discussed earlier, east-west interchange volumes are a small share of total U.S. Class I traffic, so improving how this traffic

[174] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Tables and In-Text."

moves has limited effect on overall network operations or service. Second, a merger is unnecessary for more efficient blocking coordination; all Class I carriers already routinely block deep into their interline partners' territory.

168. On the first point, UP/NS's Optimized Plan identifies {{ [redacted] }} blocks, of which {{ [redacted] }} are identical to those in the Base Plan. In other words, the UP/NS proposed merger will affect only {{ [redacted] }} of the blocks moving on the combined network.[175]

169. On the second point, UP/NS's Base Plan already contains numerous blocks running from stations on the UP legacy network, through gateways to stations on the NS legacy network. Figure 40 below shows the locations in the Base Plan where carload blocks between the UP and NS systems originate or terminate and the incremental blocks traversing gateways added in the Optimized Plan.

[175] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Tables and In-Text."

Figure 40[176]{



}

170. The yellow dots on the map depict blocking origination/terminations added in the Optimized Plan, representing UP/NS's promised "deeper" blocking, and are generally clustered around existing red dots, where reciprocal UP/NS blocking already occurs. As with the interchanges discussed earlier in this statement, deep blocking does not depend on shared ownership of any assets. It depends only on carrier cooperation where there are volumes sufficient to warrant dedicated blocks for an interline partner's territory. The significant number of locations

[176] *See* Zebrowski/Baranowski Workpaper Folder "Figure 40."

in the Base Plan where UP/NS already engage in deeper blocking shows that those incentives for cooperation exist today, so the merger is not needed to achieve this benefit.

10.5. The actual number of handling reductions UP/NS predicts is minimal.

171. UP/NS's headline reduction in intermediate handlings is a small fraction of system-wide operations. Table 2 of the UP/NS Operating Plan identifies as a key metric a reduction in the number of intermediate handlings between the Base Plan and Optimized Plan of {{ [redacted] }} per day, representing an overall {{ [redacted] }} of combined system-wide intermediate handlings.[177] Table 29 below disaggregates the intermediate handling reductions for carload, intermodal, auto and block swap separately for UP/NS interline shipments and local shipments.

Table 29[178]{{

[redacted]

}}

[177] *See* Joint Verified Statement of Eric Gehringer and John Orr (Sept. 4, 2026) at page 15.

[178] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Tables and In-Text."

172. As Table 29 shows, most of the planned reductions in intermediate handlings per day occur on shipments that are not interlined between UP and NS today and, as such, are largely unaffected by the proposed merger. Specifically, excluding the {{ [redacted] }}, {{ [redacted] }}, are for local shipments unaffected by the proposed merger. That leaves a savings of just {{ [redacted] }} handling reductions attributable to the merger. This represents an overall reduction in handlings of a scant {{ [redacted] }}.[179]

173. The Service Assurance Plan similarly portrays the merger's service improvements as widespread by counting the routing lanes for which designed service levels would improve or degrade under the Operating Plan. Instead of showing widespread improvement, only counting the carloads actually affected shows how limited the improvements in the UP/NS Optimized Plan are: only {{ [redacted] }} of all combined UP/NS carloads would have reduced handlings.

174. In the Service Assurance Plan, UP/NS state that, to help shippers compare the Base and Optimized Plans, they grouped the {{ [redacted] }} Optimized Plan blocks into O/D pairings based on U.S. Census Bureau Commodity Flow Survey areas ("CFS routes"). UP/NS's witness cites the 1,542 CFS routes that will experience an improvement of at least one handling per day [under the Optimized Plan][180] as an example of the merger's significant benefits. This overstates the CFS route analysis. The 1,542 CFS routes constitute just {{ [redacted] }} of all CFS routes identified in the analysis. More importantly, they account for less than {{ [redacted] }} of total cars captured in the analysis. The benefit UP/NS cites therefore reaches only a small fraction of the cars UP/NS actually move.

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[179] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Tables and In-Text."

[180] *See* Verified Statement of John Turner (Sept. 4, 2026), on page 19.

175. Because cars may be switched among multiple blocks over the course of a trip, MultiRail's optimization of blocking and train assignments often results in only an operationally negligible fractional change in the average number of handlings per car. As Table 30 below shows, most shipments—representing {{ [redacted] }} of CFS lanes and {{ [redacted] }} of carloads—see a change of only -0.2 to 0.2 handlings per day.

Table 30[181]{{



}}

176. UP/NS conducted a similar CFS route analysis regarding intermodal routes, which ultimately asserts that {{ [redacted] }} of subject CFS routes are expected to see no change or an improvement in the number of handlings per intermodal unit.[182] In fact, the "no change" bucket makes up most of this percentage, even more so when accounting for immaterial fractional handling reductions. As shown in Table 31, only {{ [redacted] }} of the CFS routes and {{ [redacted] }} of total intermodal units in UP/NS's analysis experience handling reductions greater than 1 per unit per trip.

[181] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Tables and In-Text."

[182] *See* Verified Statement of John Turner (Sept. 4, 2026), on page 20.

Table 31[183] {{

[redacted]

}}

10.6. Projected UP/NS service to growth traffic lacks clear improvements.

177. The growth operating plan does not improve, or even model, service for the traffic UP/NS predicts will divert from truck to rail. Without better service, UP/NS is even less likely to achieve the truck diversions it predicts.

178. As discussed above in Section 10.3, only a small fraction of projected intermodal and carload growth will ride on linehaul trains not already operating today. As discussed in Section 12.5, the growth plan only modelled service for {{ [redacted] }} county-to-county lanes and most local service operations were not considered due to re-mapping issues.

179. For truck-to-intermodal diversion traffic, UP/NS's planned new train operations would make more intermediate stops than current operations. On lanes with current intermodal service where growth is predicted, current operations average {{ [redacted] }} modeling. Extra stops add time and complexity that risk, rather than improve, reliability[185].

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[183] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Tables and In-Text."

[184] Does not include 82 lanes introduced in Optimized Plan to eliminate rubber tire interchanges.

[185] *See* Zebrowski/Baranowski Workpaper "Section 10 Exhibits.xlsx," tab "Tables and In-Text."

11. UP/NS CONTROL OVER GATEWAYS THREATENS REMAINING INTERCHANGES.

180. If the merger is approved, UP/NS's share of and influence over gateway traffic would be outsized from day one and would only grow. As the table below shows, UP and NS participate in most gateway interchanges today. These are best described as independent interchanges between NS and a neutral western partner or between UP and a neutral eastern carrier (*i.e.*, BNSF-NS, UP-CSX). After the merger, UP/NS would no longer qualify as a neutral participant and as a merged entity would have unilateral control of the majority of carload and intermodal shipments moving across gateways. Similarly, the remaining neutral interchange participants at gateways will no longer be considered neutral and will instead become direct competitors to the combined UP/NS. As such, these remaining competing gateway interchange participants will no longer rely on other similarly incentivized neutral participants and will instead be at the mercy of UP/NS.

Table 32[186]{{



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181. By UP/NS's own projections, most interchanges among independent carriers at gateways would no longer occur under the proposed merger. Overall interchange activity would drop dramatically, and the remaining interchanges would require UP/NS participation. Specifically, UP/NS would participate in {{ }} of post-merger carload gateway crossings and {{ }} of remaining intermodal gateway crossings. Instead of NS independently partnering with a neutral western carrier or UP independently partnering with a neutral eastern carrier, as set forth in Table 32, a material portion of those crossings will require interchange with competitor railroads.

182. Dependence on UP/NS as a competitor to interchange shipments at gateways raises significant operational and commercial concerns for railroads and shippers. The merger would reduce UP/NS's dependence on competing railroads while strengthening their control at major

[186] *See* Zebrowski/Baranowski Workpaper "Section 11 Exhibits.xlsx," tab "Tables and In-Text."

gateways. Where UP/NS control critical infrastructure or interchange facilities, they could prioritize their own movements, increasing dwell and reducing reliability for competing interline traffic. These disadvantages could drive further diversion toward UP/NS, reinforcing their dominant position.

12. UP/NS'S OPERATING PLAN AND SERVICE ASSURANCE PLAN ARE UNRELIABLE.

183. As part of their application, UP/NS produced full-system Base, Optimized, and Growth Operating Plans documenting how the transaction would change their operations. The plans offer a general concept of how traffic may move over a combined network, but rely on oversimplified assumptions that leave significant planning gaps. UP/NS use daily averages and unverified placeholders for over-the-road, yard, and terminal operations, which obscures operating variability and offers little assurance that the modeled operations are achievable.

184. The best example of the magnitude of the many shortcomings affecting the UP/NS Operating Plan is the MultiRail routing assumptions for carload shipments. A significant portion of UP/NS carload shipments are either (1) assigned to blocks that are not matched with any trains, (2) missing any block sequencing for movement from origin to destination, (3) arbitrarily dropped from the traffic summary data, or (4) remapped from the true origin/destination location to an assumed origin/destination block location. Each of these issues independently prevents the Operating Plan from successfully moving carload shipments from origin to destination. As Table 33 shows, after accounting for the identified Operating Plan failures, only slightly more than {{ [redacted] }} of carload traffic is successfully routed between its true origin and destination across the Base, Optimized and Growth Operating Plans. The following section reviews these issues in greater detail.

Table 33[187]{{



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185. These shortcomings raise substantial questions about the rigor of the MultiRail Operating Plan modeling. UP/NS also rely on the success of the Operating Plan as the foundation for their Service Assurance Plan (SAP). Any failures in the Operating Plan to successfully handle traffic from origin to destination undermine the integrity of the SAP. Further, the SAP itself is principally a monitoring framework—a plan to watch problems unfold, not a plan to prevent them.

12.1. The Operating Plan does not consider day-to-day traffic volume variation.

186. UP/NS's Operating Plan does not show that the combined network can handle normal swings in daily volume, because it assumes every day is an average day. The plan assumes the same number of cars and containers, loaded and empty, move over the network each day.

187. On top of the base simplifying assumption of an average day, both the Operating Plan and Service Assurance Plan rely on the premise that "most of Applicants' main lines, yards, and terminals will not experience any significant merger-related increase in activity levels."[188] Combined, the average day and no significant merger related increased yard activities suppress the fluctuations in daily volumes for specific origin, destination, routing and car requirements that the

[187] *See* Zebrowski/Baranowski Workpaper "Section 12 Exhibits.xlsx," tab "Table 33."

[188] *See* Verified Statement of John Turner (Sept. 4, 2026) on page 6.

Operating Plan trains must handle and the UP/NS yards accommodate. These premises leave unanswered whether the proposed operations can realistically absorb normal daily fluctuations without experiencing service-related failures.

188. Averaging daily yard volumes conceals the debilitating effects of periods when demand exceeds processing or holding capacity, when cars may accumulate, dwell may increase, and connections may be missed. Averaging does not itself establish that these problems will occur, but it does require UP/NS to explain more than they have how they would accommodate peaks and recover from resulting disruptions. The Service Assurance Plan does not adequately tie its contingency measures to these potential constraints.

189. Both car processing and yard holding capacity illustrate the shortcomings of UP/NS's average-day approach. As modeled, UP/NS's daily processing volumes do not show whether enough processing capacity is available on higher-volume days, and the Operating Plan neither quantifies practical holding capacity at individual yards nor compares projected car inventories against it. Instead, UP/NS identify only the assumed number of cars processed daily at each yard and target yard dwell time ranges of (20 to 26 hours) at legacy UP yards and (26 to 32 hours) at legacy NS yards for the average assumed cars processed.

190. Figures 41 and 42 compare the Base Plan's modeled daily car processing volumes with the distributions of actual daily cars processed at UP's and NS's principal classification yards derived from car event data. The historical distributions show substantial day-to-day variation that a single average-day value does not capture. At several yards, particularly on NS, the assumed number of cars processed in the Operating Plan diverges from, and in some instances exceeds, the historical median. UP/NS do not explain how their assumed processing rates relate to observed operations or how the yards would handle days above those averages.

Figure 41[189]{{



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Figure 42[190]{{



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[189] *See* Zebrowski/Baranowski Workpaper "Section 12 Exhibits.xlsx," tab "Figures 41 + 42."

[190] *See* Zebrowski/Baranowski Workpaper "Section 12 Exhibits.xlsx," tab "Figures 41 + 42."

191. A closer look at a single yard shows the scale of the potential issue. The Base Plan assumes UP's North Little Rock yard would process {{ }} cars per day, within {{ }} of its actual 2023 daily average and below UP/NS's estimated post-transaction processing capacity of {{ }}[191]. In 2023, however, the yard processed as many as {{)}}. Higher-volume days are common; the number of cars processed daily exceeded the Base Plan value of {{ }} on {{ }} days in 2023, including {{ }} days above the yard's stated post-transaction processing capacity of {{ }} cars a day. Multiple days of excessive processing volumes at a yard can trigger cascading service disruptions that neither the Operating Plan nor the Service Assurance Plan considers, including reduced yard fluidity, longer car dwell, and missed connections.

192. While car processing volume is an important measure of yard activity, it does not, by itself, establish yard fluidity or available capacity. Practical yard holding capacity—the usable track space needed to accommodate cars while maintaining yard operations—is also important and interacts with processing capacity. As available space becomes constrained, a yard's ability to receive, classify, and dispatch cars can deteriorate. Neither the Operating Plan nor the Service Assurance Plan quantifies practical yard holding capacity or evaluates projected car inventories against that capacity.

193. Historical data confirms the effects of yard inventory, fluid capacity and available capacity on yard dwell. Figures 43 and 44 show the relationship between daily car inventories and dwell time at the five highest-volume processing yards on each of UP and NS. The blue bands denote UP/NS's stated benchmark dwell ranges at UP and NS .

[191] *See* Zebrowski/Baranowski Workpaper "Section 12 Exhibits.xlsx," tab "In-Text."

Despite differences in location, operations, and infrastructure, each one of the depicted yards experienced longer dwell as the number of cars in the yard approached practical holding capacity. The data in the Figures confirms the risk of assessing a yard's ability to handle future volumes based on processing volumes alone.

Figure 43[192]{{



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[192] *See* Zebrowski/Baranowski Workpaper "Section 12 Exhibits.xlsx," tab "Figures 43 + 44."

Figure 44[193]{{



}}

12.2. The Operating Plan does not provide or support most over-the-road transit times and dwell times.

194. UP/NS also overstate other operating efficiencies. The Application does not provide any expected end-to-end transit times, tied to any workpaper, for the train services UP/NS expect to run on the merged railroad. The few transit times UP/NS do provide are either hardcoded in workbooks or presented in statements without citation. Without supporting calculations, neither the Board nor shippers can test whether the advertised transit times — which are central to UP/NS's claimed service benefits — are achievable.

195. No materials in UP/NS's application verify their advertised transit times, because there is no way to derive transit times from UP/NS's MultiRail modeling. The train ExpandedRoute table identifies each MultiRail train in the model and the locations it passes

[193] *See* Zebrowski/Baranowski Workpaper "Section 12 Exhibits.xlsx," tab "Figures 43 + 44."

through or stops at.[194] For each location, the model includes arrival, departure, and dwell time fields which in normal circumstances would allow for the derivation of end-to-end transit times for each planned train. However, in an August 21, 2026 letter to BNSF, UP's outside counsel clarified that all of the reported MultiRail arrival, departure and dwell times are placeholder values only.[195]

12.3. The Operating Plan fails to assign all traffic to blocks and all blocks to trains.

196. UP/NS's MultiRail software assigns each traffic record to a block sequence and assigns blocks to trains that carry them between origin and destination, presumably with the goal of producing trains and blocks that carry each traffic record the full length of its route. Instead, many traffic records in UP/NS's MultiRail traffic tables lack a complete block sequence, are assigned to a block no train picks up, or are excluded from traffic assignment altogether.

197. In the Optimized Plan alone, there are over {{ [redacted] }} instances in which cars are assigned to blocks no train picks up. For these cars, the plan successfully sorts the traffic into a block, but the modeled train plan contains no corresponding train movement to carry that block forward, leaving the cars stranded at that stage of the modeled operation. There are another {{ [redacted] }} instances in which cars have no or incomplete block sequences. These cars remain in UP/NS's modeled traffic demand, but the plan does not establish the complete sequence of blocks necessary to move them through the network to destination. Some of these blocks are expressly identified by the model as "unmoved." Finally, there are {{ [redacted] }} instances in which cars are marked "Deleted" in UP/NS's compressed traffic table. These cars drop out of the modeled traffic

[194] *See* Workpaper "C-Multirail Data Dictionary," tab "Field descriptions."

[195] *See* Workpaper "UP_August_21_2026_Data_Letter.pdf."

population before the plan completes their routing or assigns the blocks and trains necessary to move them to destination.[196]

198. The Optimized Plan leaves substantial volumes of modeled traffic without a complete, executable path to destination, whether because the traffic disappears before routing is completed, lacks the blocks necessary to move through the network, or is assigned to a block that no modeled train carries. UP/NS cannot ask shippers or the Board to rely on a Service Assurance Plan built on an Operating Plan that regularly leaves traffic behind.

12.4. The Operating Plan ignores over {{ }} car-miles of first- and last-mile delivery activity.

199. For the blocks that it does move, UP/NS's Operating Plan often does not pick up shipments where they actually originate or deliver them where they actually terminate. At a high level, UP/NS's train modeling focuses on mainline operations. Less attention was given to local trains, which were represented in the Base Plan, but without explicitly modeling the customer-level pull-and-spot movements required to execute local service. As a result, neither the Optimized Plan nor the Growth Plan (which identifies no specific changes to local service to accommodate new traffic) addresses how first- and last-mile operations would be accommodated for shipments moving over the combined UP/NS system.

200. This omission is critical. Individual MultiRail traffic records show that the modeled blocking and routings of over {{ }} unique cars begin at station locations away from a shipment's actual origin or end at stations short of the actual destination over {{ }} times. In effect, the MultiRail blocking and routing assumptions remap traffic

[196] *See* Zebrowski/Baranowski Workpaper "Section 12 Exhibits.xlsx," tab "Table 33."

records to locations convenient for blocking in UP/NS's plan, regardless of the real-world consequences.

201. Specifically, each MultiRail traffic record contains two sets of location fields. The first records each shipment's True Origin and True Destination from source waybills—that is, where the traffic actually moves to and from on the UP and NS networks today.[197] One would therefore expect UP/NS's Operating Plans to pick up and set out traffic at these locations. They do not. Instead, the modeled blocking and routings move traffic between a second set of locations, the "Block Origin" and "Block Destination." Where a Block Origin or Block Destination differs from the waybill location, the Operating Plans neither identify the connecting movement between the two nor demonstrate that local services can handle the traffic; the carloads simply appear at the assumed block locations.

202. This remapping has two major consequences. First, a significant volume of traffic is assumed to have originating or terminating blocks at the wrong yards in terminal areas, producing over {{ [redacted] }} instances in which cars do not reach their actual local origins, destinations, or both. Second, some traffic originates or terminates very far from its True Origin or True Destination location—in extreme cases, hundreds of miles from the shipment's actual origin or destination.

203. The remapping issue is particularly impactful at the major gateways. Table 34 below shows the number of originating or terminating remapping activities for shipments with

[197] UP/NS's MultiRail Data Dictionary defines the trueOriginLocationKey ("True Origin") and trueDestinationLocationKey ("True Destination") fields as "Traffic origin/destination location from source waybills, prior to any location re-mapping." The second set of fields is originLocationKey ("Block Origin") and destinationLocationKey ("Block Destination"). *See* Workpaper "C-Multirail Data Dictionary," tab "Field descriptions."

actual originations or terminations within 25 miles of each gateway in the Base Plan. Most of the affected car volume consists of traffic records assigned to different yards in the region. Although the distance between a traffic record's trueOrigin and originLocation yards can be relatively small, the volume of traffic is material: nearly {{ [redacted] }} origin or destination activities per day are incorrectly remapped across all gateways, accounting for {{ [redacted] }} of all affected remapping activities.

Table 34[198]{{

[redacted]

}}

204. The issue is especially prevalent in the Chicago area, where the equivalent of nearly {{ [redacted] }} cars per day have been remapped to incorrect originating or terminating locations. Figure 45 below shows the extent of this remapping in the Chicago area in the Base Plan. It affects numerous yards in the area: at {{ [redacted] }} different yards or stations the equivalent of more than {{ [redacted] }} cars per day incorrectly originate or terminate. That much volume across so many yards would undoubtedly affect area operations.

[198] *See* Zebrowski/Baranowski Workpaper "Section 12 Exhibits.xlsx," tab "Table 34."

Figure 45[199]{{



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205. Some traffic enters UP/NS's modeled network hundreds of miles from where it actually originates, with no connecting movement to get it there. Figure 46 below illustrates this second major remapping issue. The map depicts all Base Plan traffic records whose trueOrigins are remapped to NS's Oliver Yard in New Orleans as a Block Origin. Of the {{ }} remapped traffic records assigned an originLocation of New Orleans, {{ }} have trueOrigins not served by an existing New Orleans-based local train. In one extreme example, a traffic record identifies its trueOrigin as {{ }} but assigns its originLocation to New Orleans, so the shipment enters the modeled network over {{ }} miles from its waybill origin.

[199] *See* Zebrowski/Baranowski Workpaper Folder "Figure 45."

Figure 46[200]{{



}}

206. Across all traffic records with an origin remap, the weighted average distance between Block Origin and trueOrigin is {{ [redacted] }}, and between Block Destination and trueDestination is {{ [redacted] }}[201]. UP/NS's Operating Plan thus picks up traffic miles from where it is and drops it off miles from where it needs to be.

207. Overall, UP/NS fail to model over {{{ [redacted] }}} car-miles between True Origin/Destination and Block Origin/Destination in the Base Plan. The UP/NS Operating Plan Table 2 shows a merger-related benefits of a reduction in car miles per day between the Base and Optimized Operating Plans of just over {{ [redacted] }}, or approximately {{ [redacted] }} million annually. The {{ [redacted] }} million car-miles unaddressed because of UP/NS MultiRail modeling assumptions

[200] *See* Zebrowski/Baranowski Workpaper Folder "Figure 46."

[201] *See* Zebrowski/Baranowski Workpaper "Section 12 Exhibits.xlsx," tab "In-Text."

are over {{{ [redacted] }}} Optimized Plan after the merger. This unmodeled first- and last-mile activity erodes UP/NS's claimed efficiency gain, and because the Operating Plan omits it for so many traffic records, the Service Assurance Plan cannot rely on the Operating Plan.

12.5. The Growth Plan truck-to-merchandise diversion projections also exclude first and last mile delivery activity.

208. Putting aside the validity of the UP/NS assumed truck-to-merchandise rail diversions, the UP/NS Operating Plan for handling these truck-to-merchandise diversions is deeply flawed. The UP/NS truck-to-rail diversion model produces assumed diverted volumes at the county-to-county level, but MultiRail assigns each county to the closest qualifying blocking location.[202] Because of the wide array of county-to-county diversions relative to the MultiRail blocking locations, this process distorts the diversion traffic records relative to the model outputs.

209. The UP/NS MultiRail modeling process cuts the more than [redacted] county-to-county lanes the diversion model produces down to roughly the [redacted] highest-volume lanes, keeping at least one lane for each commodity and car type combination. Each retained lane is then "grossed up" to account for the excluded records, and these grossed-up records are what MultiRail ultimately models. Table 35 below illustrates this process for UP/NS's predicted Lumber and Wood Products (STCC 24) flat car diversions: the {{{ [redacted] }}} county-to-county lanes where UP/NS predict such diversions are ultimately condensed to only the 10 lanes shown in the table.

[202] Within MultiRail, each county is assigned to the closest MultiRail blocking location with {{{ [redacted] }}} cars per day in the yard.

Table 35[203] {{



}}

210. As a result, UP/NS's truck-to-merchandise diversions are modeled as originating and terminating in places with little to no relation to their predicted origins and destinations. For example, UP/NS predict that they will {{

[203] *See* Zebrowski/Baranowski Workpaper "Section 12 Exhibits.xlsx," tab "Table 35."

[redacted] }} Because this pair is not among the top diversion lanes for that STCC and car type shown in Table 35, these diversions are spread evenly across the lanes depicted in the Table, despite having no geographical relation to them at all.

211. Similar egregious remapping issues occur for other commodities UP/NS assume will divert from truck to merchandise. As a different example, Figures 47 and 48 below visualize this process for UP/NS's STCC 28 flat car diversions. Figure 47 shows the county-to-county pairs where the UP/NS model predicts diversions, with line thickness indicating the number of carloads expected to divert. Figure 48, by contrast, shows that these diverse county-to-county lanes are remapped and condensed to only {{ [redacted] }} traffic records that result in those shipments being moved from and to origins and destinations far from where they actually occur.

Figure 47[204]{{

[redacted]

}}

[204] *See* Zebrowski/Baranowski Workpaper Folder "Figure 47."

Figure 48[205]{{



}}

212. The traffic records that end up in UP/NS's Operating Plan are far from representative of the truck-to-merchandise diversions that UP/NS predict. UP and NS have repeatedly claimed that this merger is about growth and touted the potential for a newly merged railroad to take trucks off the road. However, because the Operating Plan does not model where that growth traffic would actually originate and terminate, it provides no basis for concluding that UP/NS could deliver reliable end-to-end service to those volumes.

12.6. The Growth Plan improperly assumes that existing intermodal shipments will be remapped to other intermodal facilities.

213. UP/NS not only fail to offer an adequate plan for their growth volumes; the plan they do present rests on unsupported assumptions about existing intermodal traffic. To free up capacity at terminals where growth is projected, UP/NS's Growth Operating Plan "assumes that

[205] *See* Zebrowski/Baranowski Workpaper Folder "Figure 48."

some existing intermodal traffic can be shifted among terminals within the same region."[206] Put another way, to accommodate the predicted growth in intermodal shipments, the UP/NS Operating Plan assumes {{ [redacted] }}. UP/NS offer no incentives for existing shippers to change their operations and instead just assume their wishes will be accommodated.

214. Tables 36 and 37 below show how UP/NS have reassigned originating and terminating locations for intermodal traffic in Southern California. In total, {{ [redacted] }} on the congested local road network, with no compensation. In the most extreme cases, traffic is moved to terminals on opposite sides of the Los Angeles Basin more than 60 road miles apart. Nationally, {{ [redacted] }} intermodal units are remapped to other terminals. At a minimum, UP/NS's assumption that intermodal shippers will reconfigure their dray operations to accommodate UP/NS's Operating Plan is unsupported.

[206] *See* Verified Statement of David T. Hunt (Sept. 4, 2026) on page 61.

Table 36[207]{{



}}

Table 37[208]{{



}}

215. Each additional mile an intermodal customer must dray its containers significantly affects the economics of its intermodal shipping. For many shippers, a longer dray could erase intermodal's cost advantage and push traffic back to trucks, undermining the very growth UP/NS project. It is unreasonable for UP/NS to assume customers will alter their dray patterns to accommodate projected growth.

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[207] *See* Zebrowski/Baranowski Workpaper "Section 12 Exhibits.xlsx," tab "Tables 36 + 37."

[208] *See* Zebrowski/Baranowski Workpaper "Section 12 Exhibits.xlsx," tab "Tables 36 +37."

12.7. Deficiencies in the Operating Plan undermine the Service Assurance Plan's reliance on monitoring and corrective action.

216. UP/NS's Service Assurance Plan is built to manage service problems after they emerge, not to prevent them, which makes the issues identified above consequential. The plan relies substantially on monitoring performance and taking corrective action after problems emerge. Although it identifies capital investments and contingency resources, it generally does not specify in advance how UP/NS will respond if service deteriorates. Instead, it often leaves UP/NS to develop the specific response after identifying the problem.

217. The Operating Plan deficiencies magnify this concern. Where the Operating Plans do not reliably capture terminal workloads, local movements, or operating variability, the SAP does not demonstrate how its resources address those specific demands. Nor does it demonstrate that UP/NS systematically used the risks the Operating Plans revealed to develop its proposed safeguards. Instead, it identifies resources that may be available and leaves the actual response to monitoring and problem resolution. That flexibility may assist UP/NS once problems develop, but it does not demonstrate that UP/NS has identified and addressed those problems in advance.

PART III – THE MERGER WOULD REMOVE SUBSTANTIAL TRAFFIC FROM RATE REASONABLENESS REVIEW AND EXPOSE NS SHIPPERS TO UP'S HIGHER PRICING.

13. THE PROPOSED MERGER WILL PRODUCE REGULATORY DISRUPTIONS

218. Unlike prior mergers, which were largely confined to either the eastern or western United States, a UP/NS merger would for the first time combine a largely western and largely eastern carrier. That matters because eastern and western railroads have fundamentally different cost structures. Because of differences in terrain, customer proximity, and infrastructure, unit operating costs are typically lower in the West, with its long stretches of relatively flat terrain and more widely dispersed customers, than in the East.

219. Under the Board's rules, if the merger is approved, the Board will combine the carriers' financial and operating data to produce a consolidated version of the Board's regulatory costing tool, the Uniform Rail Costing System ("URCS"). UP/NS's witnesses Michael Boyles and Dr. Divya Mathur (Boyles/Mathur) generate a consolidated URCS as part of their quantification of alleged merger synergies. As summarized in Table 38 below, the Boyles/Mathur UP/NS URCS produces average variable costs for the merged entity of {{ [redacted] }}, a {{ [redacted] }} increase over UP's unconsolidated URCS costs.

Table 38[209]{{

[redacted]

}}

220. URCS determines which rail rates are subject to the Board's jurisdiction, which of those rates are reasonable, and the relief to which a shipper may be entitled. URCS is the STB's general purpose costing system for estimating unit costs and total variable costs for U.S. Class I railroads, and the Board uses it for a variety of statutory and non-statutory functions. Central to these determinations is the jurisdictional threshold, set by statute at 180% of a carrier's URCS variable cost. Rates below that threshold are not subject to Board jurisdiction and are presumed competitive. Rates above it carry a presumption of market dominance and are subject to Board jurisdiction. Critically, any relief the Board grants cannot push rates below the threshold.

[209] *See* Zebrowski/Baranowski Workpaper "Section 13 Exhibits.xlsx," tab "Tables and In-Text."

221. Beyond the jurisdictional threshold, the Board uses URCS in rate reasonableness proceedings to allocate costs and revenues to individual segments and as a key component of the cross-subsidy test in stand-alone cost cases. It is also used to develop variable costs in abandonment proceedings and plays a key role in the Board's simplified stand-alone cost methodology. Finally, URCS is the foundation for the Board's Three-Benchmark approach for small rate disputes, where it is used to determine the revenue-to-variable cost ratios for the comparable traffic group ("R/VCCOMP"); to develop the Revenue Shortfall Allocation Method ("RSAM"), which measures the average markup a railroad would need to charge all of its potentially captive traffic to earn adequate revenues; and to calculate R/VC180, the actual R/VC paid by captive shippers.

222. Changes in URCS variable costs matter because, as explained above, they determine which rates the Board can review. Because the consolidated URCS raises UP's variable costs, it lowers the R/VC ratios calculated for UP traffic, which arbitrarily reduces the share of UP carload shipments above the Board's 180% jurisdictional threshold. As Table 39 shows, under a consolidated URCS the percentage of UP carloads with R/VC ratios above the threshold decreases from {{{ [redacted] }}}, so the rates on an additional {{{ [redacted] }}} percentage points of UP carloads would shift and be presumed competitive.

Table 39[210]{{{

[redacted]

}}}

[210] *See* Zebrowski/Baranowski Workpaper "Section 13 Exhibits.xlsx," tab "Tables and In-Text."

223. To put this shift in perspective, Table 40 shows that under the consolidated URCS, approximately {{{ [redacted] }}} of UP revenue would move below the jurisdictional threshold, leaving the shippers who pay those rates without access to Board rate review. The shift would result solely from a change in costing methodology, not from any change in the service shippers receive or the rates they pay.

Table 40[211]{{{

[redacted]

}}}

224. A combined URCS would reduce the number of legacy UP shipments eligible for the comparable group in the Board's Three-Benchmark test for small rate cases and misrepresent the variable cost and corresponding R/VC of potentially comparable traffic. These effects on the Three-Benchmark test would be particularly acute. At a high level, the test compares the R/VC of the traffic at issue with the R/VCs of a comparable traffic group drawn from the defendant carrier's Confidential Carload Waybill Sample. According to the Board, comparable traffic is potentially captive traffic, priced at or above the 180% jurisdictional threshold, with transportation characteristics comparable to the challenged shipment. These include, but are not limited to, route and corridor (same or similar mainline/route segment), route type (e.g., mainline, spur, branch), distance, traffic type, service conditions, and other relevant physical and operational characteristics.

[211] *See* Zebrowski/Baranowski Workpaper "Section 13 Exhibits.xlsx," tab "Tables and In-Text."

225. In addition to the abrupt effects on regulatory costs, combining an eastern and western railroad would affect the Board's calculation of URCS East and West regional costs. The Board publishes regional URCS results to provide transparent, standardized, and comparable cost data for U.S. Class I railroads in support of its statutory and regulatory functions. Separate eastern and western regions allow the Board to account for geographic differences in terrain, network density, and cost structures, improving the accuracy of cost estimates for specific markets and proceedings. Combining eastern and western carrier costs would undermine that goal. Because regional URCS costs feed into the Board's rate reasonableness and other regulatory proceedings, less accurate regional costs could affect outcomes for shippers in both regions.

226. Similarly, the Association of American Railroads ("AAR") publishes regional cost indexes to track and measure changes in the cost of inputs to railroad operations — such as labor, fuel, materials, supplies, and overhead — in specific geographic areas. These indexes are designed to reflect inflationary pressures unique to each region rather than a single national average, as cost changes can vary significantly between parts of the U.S. rail network. The AAR regional indexes would not accurately capture the combined costs for an eastern and western carrier. Because these indexes are used to adjust rates and costs over time, inaccuracies could carry forward into future rate adjustments.

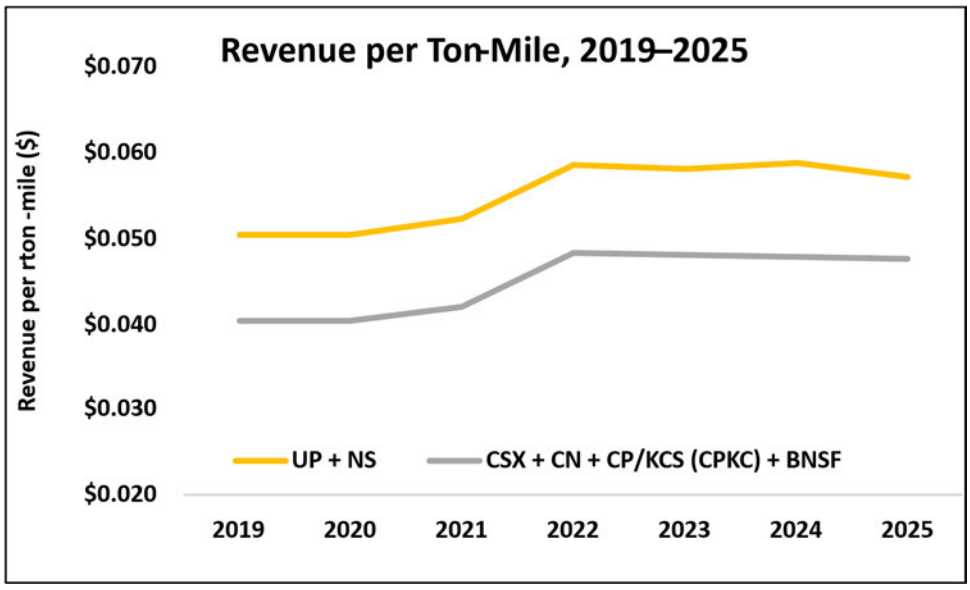
14. THE PROPOSED MERGER WOULD BROADEN THE REACH OF UP'S HIGH PRICING STRUCTURE.

227. UP/NS claim truck diversions will generate much of the revenue needed to justify the transaction, but those diversions are significantly overstated. When they fail to materialize, UP/NS will face investor pressure to make up the expected revenue by raising rates on shippers without competitive alternatives, including rail-to-rail diversion traffic where UP/NS is the sole provider at one end. To cover the transaction costs and enhance profitability, UP could apply its

higher pricing model to NS's current business and use the merger's added market concentration to extend that pricing across the combined system.

228. Even setting aside pressure from merger-related performance expectations, the merger would broaden the reach of UP's pricing structure. Figure 49 shows that UP's and NS's combined revenues per ton-mile have historically been significantly higher than the average of the other Class I railroads.

Figure 49[212]



229. A key driver of the higher combined UP/NS revenue per ton-mile is UP's pricing model, which {{ [redacted] }} Figure 50 shows that UP collects proportionately far more revenue from higher-priced shipments with R/VCs above 180% than BNSF, CSX or NS. Notably, during the same period in which UP

[212] *See* Zebrowski/Baranowski Workpaper "Section 14 Exhibits.xlsx," tab "Figure 49."

has collected over {{{ [redacted] }}} a year from shipments with R/VCs above 180%, it has also exceeded the STB's revenue adequacy standard by an average of approximately $2.5 billion a year (2019-2023).[213]

Figure 50[214]{{



}}

230. These historical pricing trends become especially relevant in sizing possible outcomes if the merger occurs and UP/NS must contend with probable shortfalls in projected revenue and synergies. To contextualize this possible outcome, we start with how UP/NS view the effects of the merger in financial terms. Table 41 summarizes UP/NS's merger-related adjustments and synergies and shows the effects on the UP/NS projected post-merger net income. Before considering any revenue or cost saving synergies, UP/NS adjust net income downward by $1.3 billion reflecting higher depreciation and interest expense from the merger. From there, UP/NS

[213] *See* Zebrowski/Baranowski Workpaper "Section 14 Exhibits.xlsx," tab "In-text."

[214] *See* Zebrowski/Baranowski Workpaper "Section 14 Exhibits.xlsx," tab "Figure 50."

add merger-related revenue and cost synergies, which add back approximately $2.0 billion in net income, for an overall increase in projected net income of $0.7 billion (8%).

Table 41[215]

Line Item (In Millions)	Pre-Merger	Merger Adjustments	Pre-Synergy	Synergy	Post Merger	Pre-Post Merger % Impact
Revenues	$36,275	$0	$36,275	$4,027	$40,302	11.1%
Operating Income	$13,006	$(649)	$12,357	$2,527	$14,884	15.2%
Interest Expense	$(2,062)	$(1,016)	$(3,078)	$0	$(3,078)	49.3%
Income Tax Expense	$(2,617)	$406	$(2,211)	$(641)	$(2,852)	9.0%
Net Income	$9,052	$(1,259)	$7,793	$1,986	$9,779	8.0%

231. The projected synergies would come at a disproportionate acquisition cost. As Table 42 shows, the 8.0% increase in projected net income would be accompanied by a nearly 27% increase in net railroad property investment and, because of a $36.3 billion goodwill charge, a more than 54% increase in the combined entity's total assets.

Table 42[216]

Line Item (In Millions)	Pre-Purchase	Purchase Write-up	Post Purchase	% Impact
Total Current Assets	$8,071	$(1,348)	$6,723	−16.7%
Net Properties	$90,724	$24,351	$115,075	26.8%
Investments	$6,444	$0	$6,444	0.0%
Goodwill	$106	$36,195	$36,301	34146.2%
Other Assets	$4,091	$0	$4,091	0.0%
Total Assets	$109,436	$59,198	$168,634	54.1%

[215] *See* Zebrowski/Baranowski Workpaper "Section 14 Exhibits.xlsx," tab "Tables 41-45."

[216] *See* Zebrowski/Baranowski Workpaper "Section 14 Exhibits.xlsx," tab "Tables 41-45."

232. For perspective, Table 43 below compares the pre-merger, post-merger, and incremental returns on net rail properties and on total assets. Thus, even accepting UP/NS's projections at face value, the merger produces only a modest increase in earnings relative to the substantial increase in the combined railroad's asset base. The projected incremental net income represents a return of only 3% on the additional net railroad property, leaving little room for error in UP/NS's synergy assumptions.

Table 43[217]

Line Item (In Millions)	Pre-Merger	Post-Merger	Incremental Return
Net Income	$9,052	$9,779	$727
Rail Properties, Net	$90,724	$115,075	$24,351
Total Assets	$109,436	$168,634	$59,198
Return on Rail Properties	9.98%	8.50%	2.99%
Return on Total Assets	8.27%	5.80%	1.23%

233. A closer review of the Application, however, reveals two sets of problems with the pro forma synergy calculations. First, as discussed in Section 4, synergies tied to UP/NS's estimated truck-to-rail diversions are likely unachievable. Our analysis found that UP/NS's expert significantly overstated truck-to-rail merchandise and intermodal diversions, and that more appropriate forecasts would be {{ [redacted] }}, respectively. Assuming conservatively UP/NS could achieve the high end of the range and that they are indeed merger-related, extrapolating its projected revenue to that volume level reduces synergy-related post-merger revenues from nearly {{ [redacted] }} to {{ [redacted] }}, a {{ [redacted] }}.

[217] *See* Zebrowski/Baranowski Workpaper "Section 14 Exhibits.xlsx," tab "Tables 41-45."

234. Second, many of the operating expense reductions UP/NS claim do not depend on the merger, and UP and NS could achieve them independently. UP/NS assume improvements in areas like train length, yard productivity, and contract-service costs by having NS assets match UP performance metrics. These may be legitimate opportunities, but NS can pursue them on its own by seeking productivity gains, reducing contractor costs, adopting generally available technologies, and improving procurement and operations. Nor does applying UP benchmarks to NS show that the same results are achievable, given differences in network, traffic, labor requirements, regional costs, and operating conditions. We therefore removed from the claimed operating expense synergies those that UP and NS could achieve without the merger and its acquisition costs. Table 44 restates the Application's Summary of Benefits adjusted for these two problems, which significantly erode any income gains from the merger.

Table 44[218]{{



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235. Overall, the combined claimed truck-to-rail and operating expense synergies that are untethered to the merger total approximately {{ [redacted] }} billion. Table 45 below shows the effect of removing these synergies from projected net income and confirms that, without them, the projected benefits of the merger would be negative.

[218] *See* Zebrowski/Baranowski Workpaper "Section 14 Exhibits.xlsx," tab "Tables 41-45."

Table 45[219] {{



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236. The tables above show not only that UP/NS's projected synergies do not justify the proposed expenditure, but also what could happen if those benefits fail to materialize. If UP/NS's original post-merger net income of {{ }} billion is the appropriate target, the adjusted results leave approximately {{ }} billion in additional net income to be recovered. UP/NS could attempt to close that shortfall through several means, including additional cost reductions, greater rail-to-rail diversions, increased rates on existing shippers or other sources of revenue.

237. Another material risk, however, is that the combined carrier would seek additional revenue through higher rates on shippers with R/VCs above 180%, who have little ability to avoid increases by switching railroads. That risk is especially significant given UP's demonstrated history, discussed above, of generating industry-leading revenues from traffic priced above 180% R/VC. If UP/NS were to close the gap by increasing shipper revenues, assuming conservatively an average R/VC of 180%, UP/NS would need to increase revenues by approximately {{ }} to raise net income by {{ }}. The combined UP/NS revenue from shipments

[219] *See* Zebrowski/Baranowski Workpaper "Section 14 Exhibits.xlsx," tab "Tables 41-45."

with R/VCs above 180% is {{ [redacted] }}. The average UP/NS revenue per ton mile for those shippers is {{ [redacted] }}. As Figures 51 and 52 show, in order to make up for revenue synergies unlikely to be realized and cost synergies not related to the merger, UP/NS shippers with R/VCs above 180% would absorb an average increase of perhaps {{ [redacted] }} in revenue per ton-mile.

Figure 51[220]{{

[redacted]

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[220] *See* Zebrowski/Baranowski Workpaper "Section 14 Exhibits.xlsx," tab "Figures 51 + 52."

Figure 52[221]{{



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PART IV – GULF COAST CUSTOMERS WOULD BE CAPTIVE, AND CN ACCESS IS NOT AN ADEQUATE REMEDY.

15. MANY GULF COAST RAIL CUSTOMERS WOULD BE LEFT CAPTIVE TO A SINGLE RAILROAD.

238. The Gulf Coast Region is unique among North American rail markets.[222] It has an unmatched density of rail shippers that rely on the entire national rail network, often shipping from multiple origins to multiple destinations served by different railroads. Many of these shippers

[221] *See* Zebrowski/Baranowski Workpaper "Section 14 Exhibits.xlsx," tab "Figures 51 + 52."

[222] For purposes of this statement, we define the "Gulf Coast Region" as the coastal area extending east from Corpus Christi, Texas, to the west bank of the Mississippi River in Louisiana. We understand that this is the same geography covered by the Gulf Coast condition that BNSF is requesting. To measure rail traffic in the region consistently, we define it using the seven Bureau of Economic Analysis ("BEA") economic areas it encompasses: Corpus Christi, TX (BEA 132); Houston-Galveston-Brazoria, TX (BEA 131); Beaumont-Port Arthur, TX (BEA 87); Lake Charles, LA (BEA 86); Lafayette, LA (BEA 85); Baton Rouge, LA-MS (BEA 84); and New Orleans, LA-MS (BEA 83). Unless otherwise noted, all Gulf Coast statistics in this section refer to rail traffic originating or terminating in these seven BEAs.

operate in markets where the optimal origins and destinations shift with international commodity prices, which makes flexible access to multiple carriers and routings especially valuable. Today UP, BNSF, and, to a lesser extent, CPKC serve the region through an irregular patchwork of access that reflects historical merger settlements and existing track configurations. The Gulf Coast network is also prone to service disruptions, particularly around Houston, because of the volume and complexity of rail operations.

239. To illustrate these dynamics, we present below a series of descriptive statistics addressing five aspects of the Gulf Coast rail market: the overall volume and composition of rail traffic in the region; the number of shippers that rely heavily on rail; the mix of railroads serving those shippers and the extent of UP's captive traffic; the rates paid by sole-served versus competitive traffic; and the flow of Gulf Coast traffic to Eastern markets where competition at the non-Gulf end of the move currently constrains UP. Together, these statistics demonstrate why maintaining a competitive balance in the region is critical.

15.1. The Gulf Coast is one of the largest and most rail-dependent markets in North America.

240. Figure 53 shows the rail landscape of the Gulf Coast region as defined above, including the owner of each rail line and any Class I carriers that operate over the lines under trackage rights agreements. The map also shows the 30 largest customer facilities, by volume, that are closed to competitive access on either UP or BNSF, as well as the principal BNSF and UP yards serving the region.

Figure 53[223]{{



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241. Three features of the map help explain both UP's market power in the region and the operational complexity of rail service there. First, the largest closed facilities—including major chemical, plastics, and energy plants—are clustered around Houston, the Texas coast south of Houston, and the Baton Rouge–New Orleans corridor along the Mississippi River. Second, much of BNSF's presence in the region depends on trackage rights over UP lines, many of which BNSF obtained as a condition of the UP/SP merger. Third, UP and BNSF operate separate yards and local service in close proximity to one another, often serving neighboring facilities.

[223] *See* Zebrowski/Baranowski Workpaper Folder "Figure 53."

242. The Gulf Coast rail market is one of the largest and most important in North America. As Figure 54 shows, rail carload revenues originating or terminating in the Gulf Coast region totaled {{ [redacted] }} in 2023, approximately {{ [redacted] }} of all U.S. rail carload revenues that year.[224] The size of this market makes it a critical component of the traffic base for every Class I railroad. Any change in which carriers can access Gulf Coast traffic therefore affects not only shippers in the region, but also the competitive position of every carrier that handles traffic to or from the Gulf Coast.

Figure 54[225]{{



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243. The composition of this traffic is equally consequential. Approximately {{ [redacted] }} of rail revenue moving to or from the Gulf Coast is carload traffic, with only limited intermodal volume for a small number of major customers. More than half of Gulf Coast carload revenue—over {{ [redacted] }} in 2023—comes from chemicals, plastics, and petroleum-derived hazardous

[224] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Tables and In-Text."

[225] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Figures."

materials.[226] These high-value, often hazardous products do not, as a practical matter, move economically by truck over long distances. For this traffic, rail is often the only practical option.

244. Gulf Coast shippers are the customers most exposed to any loss of competitive rail options, because rail dependence in the region is not limited to a few customers. Each of the seven Gulf Coast BEAs has an average of {{ [redacted] }} unique customer facility locations that shipped or received at least 1,000 carloads in 2023, compared with only {{ [redacted] }} such facilities in the average BEA elsewhere.[227] The Gulf Coast thus has several times the concentration of high-volume rail shippers found in other regions. For these shippers, rail is a core part of their supply chains rather than an occasional alternative to other modes. For instance, {{ [redacted] }} of long haul (>500mi) chemical freight originating in the Gulf Region travels by rail rather than truck, and rail's share is as high as {{ [redacted] }} for moves over 2,000 miles long.[228] Any harm to competition in the Gulf Coast would therefore fall on far more rail-dependent facilities than in a typical region.

15.2. UP has substantial market power over Gulf customers.

245. Because so many Gulf Coast shippers depend on rail, which railroads can reach them matters a great deal. Today, rail service in the region reflects a balance among several carriers. Figure 55 shows the share of all customer facility locations in the Gulf Coast region by their access to Class I carriers. This distribution illustrates both the extent of UP's existing presence in the region and the degree to which shippers depend on access to more than one railroad to maintain competitive options.

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[226] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Tables and In-Text."
[227] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Tables and In-Text."
[228] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Tables and In-Text."

Figure 55[229]{{



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246. UP holds by far the largest share of the Gulf Coast's substantial captive traffic. Approximately {{ }} of rail-served customer facilities in the Gulf Coast are "closed"—that is, they have access to only one Class I railroad, whether directly or via trackage rights, haulage rights, reciprocal switching, or a short line connection. These closed facilities account for roughly {{ }} of Gulf Coast rail revenue. Roughly {{ }} of the region's closed facilities—more than {{ }} locations—are closed on UP, and UP accounts for more than {{ }} of closed-access revenue. By comparison, BNSF accounts for about {{ }} of closed facilities and about {{ }} of closed-access revenue.[230]

247. UP's captive revenue is also concentrated among some of the largest industrial facilities in the country. Four large enterprise customers alone account for approximately {{

[229] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Figures."

[230] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Tables and In-Text."

}} of UP's closed-access revenue in the region.[231] The largest closed facilities in the region include major chemical, plastics, and energy plants operated by companies such as {{ [redacted] }}.[232]

248. Captivity matters because captive shippers pay more. As Figure 56 shows, on shipments between a UP captive Gulf Coast facility and a competitive eastern facility, the UP captive end charged on average {{ [redacted] }}[233] more per ton-mile than the competitive segment after controlling for traffic mix. If the proposed merger reduces the number of Gulf Coast shippers with meaningful competitive alternatives on both ends of a shipment, more traffic in the region would be exposed to captive pricing.

Figure 56[234]{{



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[231] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Tables and In-Text."

[232] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Tables and In-Text."

[233] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Figures."

[234] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Figures."

249. Railroad-specific revenue-to-variable cost ("R/VC") ratios reflect the relationship between competitive access and pricing. An analysis of 2023 non-intermodal carload traffic originating and terminating in the region shows that UP {{{ [redacted] }}} R/VC ratios than BNSF across the selected commodity categories. For originating traffic, UP's R/VC {{{ [redacted] }}} BNSF's in all nine 2-digit STCC categories we examined. A similar pattern holds for terminating traffic, where UP's R/VC {{{ [redacted] }}} BNSF's in each of the 12 selected commodity categories.[235] Figures 57 and 58 compare R/VC ratios for UP and BNSF by commodity category for originating and terminating shipments, respectively. These differences suggest that, if the merger reduces shippers' ability to turn to BNSF, more Gulf Coast traffic could be priced at UP's higher levels.

Figure 57[236]{{{

[redacted]

}}}

[235] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Figures."

[236] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Figures."

Figure 58[237]{{{



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15.3. The proposed merger would remove competitive constraints on UP.

250. UP's market power over captive Gulf Coast facilities is significant, but today it is constrained by the fact that much Gulf Coast traffic ultimately moves to destinations UP does not serve. Gulf Coast shippers move significant volumes to eastern markets, where NS and CSX compete for the eastern leg of the movement. Where a lane requires an interchange and the destination can be reached by either NS or CSX, a shipper whose Gulf Coast plant is captive to UP still benefits from competition at the other end of the move.

[237] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Figures."

Figure 59[238]{{



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251. The merger would remove that constraint for many movements. As discussed in Sections 6 through 8, UP/NS would have both the incentive and the ability to disfavor UP-CSX routings so that a movement from a UP-captive Gulf Coast facility to an NS-served eastern destination would be controlled by a single carrier from origin to destination. As shown in Figure 59 above, such movements account for a significant percentage of traffic between the Gulf Coast and the eastern United States. This volume would add to the leverage a combined UP/NS would bring to negotiations with a multi-facility shipper: as the share of a shipper's traffic that can move only on UP/NS grows, the shipper's ability to walk away shrinks, and the pricing power UP already exercises at captive facilities can be extended further into the shipper's remaining open business. Dr. Carlton explains the economics of how a merged carrier can use tie-in sales and bundling across and within corridors to raise rates in these circumstances.[239]

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[238] *See* Zebrowski/Baranowski Workpaper "Section 15 Exhibits.xlsx," tab "Figures."

[239] *See* Verified Statement of Dr. Dennis Carlton on pages 105-15.

252. In sum, the Gulf Coast is one of the largest and most rail-dependent freight markets in North America, and a large share of its rail traffic is already captive to UP, which charges higher rates where shippers lack a competitive alternative. Today, competition from NS and CSX at the eastern end of many Gulf Coast movements limits UP's ability to exploit that captivity. The merger would remove that limit for a substantial share of Gulf Coast traffic, placing both ends of those movements under the control of a single carrier and extending UP's pricing power from shippers' captive facilities to their remaining open business. Absent a remedy that restores competitive access in the region, Gulf Coast shippers would be left with fewer competitive options and greater exposure to sole-served pricing than they face today.

16. CN STATION ACCESS WOULD NOT REPLACE THE COMPETITION THE MERGER ELIMINATES.

253. In this section we discuss why the CN Settlement Agreement does not preserve a sufficient competitive replacement for the covered facilities currently served by both NS and UP. This is generally due to CN's smaller network reach, and specifically due to CN's limited route options on existing lanes, lower level of commodity market access, and lack of efficient physical connections for the individual facilities covered under the agreement.

254. CN's geographic reach limits the extent to which it can provide a direct competitive alternative to UP's and NS's broader networks. CN's network footprint does not directly serve several major markets, including Los Angeles, the San Francisco Bay Area, Florida, the New York metropolitan area, and southeastern Pennsylvania. This limits CN's ability to provide single-line service across important U.S. origin and destination markets and, in many cases, requires interchange with another railroad to complete the movement. Nor could CN readily overcome these geographic limitations through additional investment.

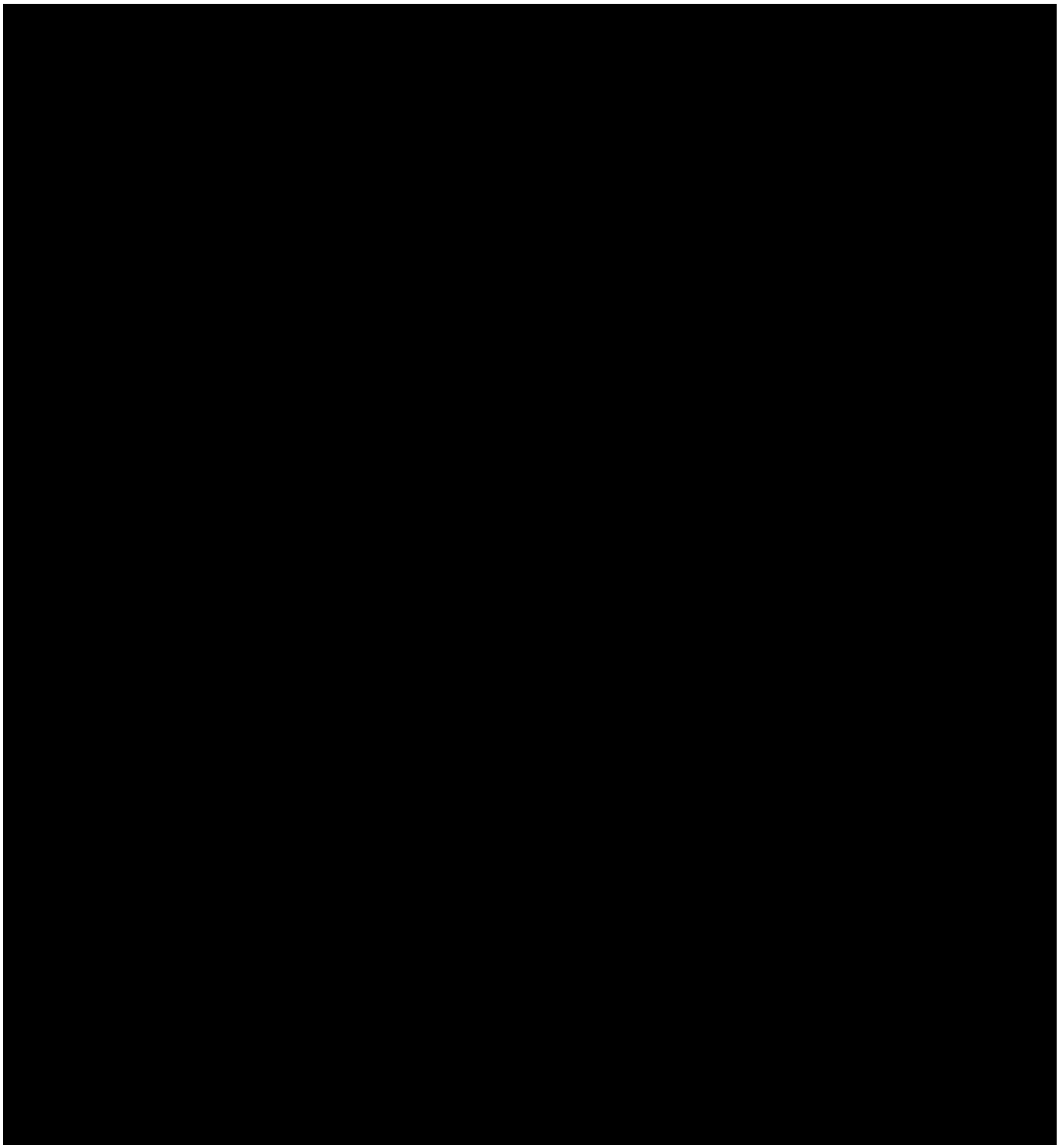
255. We apply three criteria to test whether CN may replace UP or NS's role as an independent competitor at the stations covered by the CN access agreement. These criteria evaluate lane level service, commodity market scope, and physical infrastructure.

256. To assess lane-level access, we consider whether CN serves the majority of locations to which the covered facility currently ships on either UP or NS. This is immediately relevant because it determines whether the customer will be able to use CN access to ship to the locations it currently reaches today. No affected customer with traffic meets that threshold.

257. To assess market scope, we consider if CN terminates at least as many carloads of the customer's primary commodity originating at the covered facility as either NS or UP does (and the reverse for commodities terminating at the facility). This is important because CN must have sufficient access to the relevant commodity market to provide a comparable substitute for markets independently reached on either UP or NS today. Only two of the covered facilities meet this threshold, accounting for {{ [redacted] }} carloads in 2023, or approximately {{ [redacted] }} of the {{ [redacted] }} carloads associated with the affected customers.

258. For most affected customers there is no reasonable CN routing, and Table 46 shows that in no case would a facility satisfy all three standards. To assess physical infrastructure, we consider how far CN's own network is located from the facility receiving access to CN, and whether this connection enables efficient routings. This is meaningful because even where the remedy would provide CN with access to both ends of a movement, CN still might not provide a competitive alternative because of circuitous routing. The same car may require substantially more distance, time, or operating effort to move over CN than over the existing UP or NS route, making CN's theoretical connection commercially inferior to the existing alternatives, including for movements requiring circuitous routing through Chicago or St. Louis.

Table 46[240]{{



[240] *See* Zebrowski/Baranowski Workpaper "Section 16 Exhibits.xlsx," tab "Table 46."

Customer Name	Location	Status	Lane Level Access	Market Scope	Physical Infrastructure	Volume in 2023
Wheeler Consolidated Inc	Des Moines, IA	3-to-2	n/a [3]	n/a [3]	n/a [3]	0
Des Moines Industrial LLC	Des Moines, IA	3-to-2	No	No	No	424
Bituminous Materials & Supply LP	Des Moines, IA	3-to-2	No	No	No	102
Magellan Midstream Partners	Des Moines, IA	3-to-2	No	No	No	0
Alter Metal Recycling	Des Moines, IA	3-to-2	No	No	No	1,045
Archer Daniels Midland Co	Des Moines, IA	3-to-2	No	No	No	0
Archer Daniels Midland Co	Des Moines, IA	3-to-2	No	No	No	10,791
BlueLinx Corp	Des Moines, IA	3-to-2	No	No	No	115
Bridgestone Tire LLC	Des Moines, IA	3-to-2	No	Yes	No	984
Feed Energy Co	Des Moines, IA	3-to-2	No	No	No	273
Rayner Rinn Scott	Des Moines, IA	3-to-2	No	No	No	8
General Mills Inc	Avon, IA	3-to-2	No	No	Yes	1,945
Heartland Co-op	Avon, IA	3-to-2	No	No	Yes	4,110
Intrinsic Ag LLC	Altoona, IA	3-to-2	n/a [3]	n/a [3]	n/a [3]	25
Lineage Logistics LLC	Altoona, IA	3-to-2	n/a [3]	n/a [3]	n/a [3]	0
Merchants White Line Inc	Altoona, IA	3-to-2	n/a [3]	n/a [3]	n/a [3]	188
Beisser's Inc	Grimes, IA	3-to-2	No	No	n/a [3]	101
USS Granite City Works	Granite City, IL	3-to-2	No	No	Yes	1,967
Lebanon Chemical Corp	Danville, IL	3-to-2	n/a [3]	n/a [3]	n/a [3]	27
Viscofan USA Inc	Danville, IL	3-to-2	n/a [3]	n/a [3]	n/a [3]	272

[1] No rail volumes in the past six years; [2] only one unit was shipped in 2024; [3] no rail volumes in at least eight years; [4] only four units were shipped in 2024; and [5] no remedy is available.

}}

259. Taken together, these measures show that CN access would provide, at most, a partial competitive alternative for a limited share of the affected traffic. Only approximately {{ [redacted] }} of the {{ [redacted] }} affected carloads are associated with facilities that satisfy the sufficient-alternatives test, none are associated with facilities that satisfy the majority-facility-access test, and approximately {{ [redacted] }} are associated with facilities having a reasonably efficient CN connection. No customer satisfies all three conditions.

260. Even if some customers did meet these conditions, the proposed remedies would not necessarily eliminate the investment required for CN to provide competitive service. Although most proposed remedies rely on haulage or switching, reducing CN's need for substantial new infrastructure, they do not establish that existing facilities and connections can accommodate the new service without additional capacity or modifications. Given the relatively limited volumes at issue, CN would have limited economic incentive to make even localized investments necessary to support that service.

PART V – CONCLUSION

Contrary to the conclusions of UP/NS's flawed traffic study, the proposed merger would not divert truck traffic to rail or generate shipper savings. Instead, it would disrupt rail traffic patterns on a large scale and reduce four transcontinental east-west options to a single dominant UP/NS route. The proposed conditions would not prevent a substantial reduction in interline service, and, consistent with well-established precedent, UP/NS would keep as much traffic as possible on its own system. Nor would service improve: the Operating Plan largely offers service that interline coordination already achieves today, and it leaves most gateway traffic flows and train operations essentially unchanged. Modeling deficiencies also leave the Operating Plan and the Service Assurance Plan undeveloped in key areas, increasing the likelihood of service failures

if the merger is approved. Finally, approval would disrupt the regulatory landscape, create pressure to extend UP's higher-pricing model if projected synergies fail to materialize, and further concentrate UP's control of the Gulf Coast market, which is central to the U.S. rail network.

VERIFICATION

I 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.

/s/Nathaniel S. Zebrowski
Nathaniel S. Zebrowski

/s/Michael R. Baranowski
Michael R. Baranowski

Executed this 18 day of November, 2026.

EXHIBIT 1

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B.A. in Economics, Northwestern University

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Nathan Zebrowski is a Senior Managing Director in the Network Industries Strategies group of the Economic Consulting segment, located in McLean, VA. He provides financial and economic consulting services to the transportation and energy industries.

Mr. Zebrowski's work combines economic and statistical training with deep industry expertise and project experience. His work includes freight transportation market analysis; competitive assessments and valuations for transportation assets, services, and systems; contract evaluation, negotiation support, regulatory risk assessment, and damages determinations; litigation and expert witness testimony; rate reasonableness inquiries including application of regulatory tests; M&A related analysis and support; and operational, capital investment, and cost studies.

In Mr. Zebrowski's work evaluating network enterprises, he is informed by an intimate knowledge of the fundamental economics related to long-lived network assets, the unique realities affecting network operations and the highly individualized nature of the regional and commodity markets in which transportation businesses participate. He has special expertise in developing complex computer models assessing traffic flows over railroad networks and conducting detailed studies on costs, operations, and pricing of freight transportation services.

Testimony:

March 7, 2016	United States Surface Transportation Board, Docket No. 42142 Consumers Energy Company v. CSX Transportation, Inc., Reply Evidence of CSX Transportation, Inc.
October 29, 2021	United States Surface Transportation Board, Docket No. 36500, Canadian Pacific Ry. – Control – Kansas City Southern, Railroad Control Application, Verified Statement of Nathaniel S. Zebrowski and Richard W. Brown
February 14, 2022	United States Surface Transportation Board, Ex Parte No. 711 (Sub-No. 1), Reciprocal Switching, Verified Statement of Nathaniel S. Zebrowski and Michael R. Baranowski
July 12, 2022	United States Surface Transportation Board, Docket No. 36500, Canadian Pacific Ry. – Control – Kansas City Southern, Railroad Control Application, Reply Verified Statement of Nathaniel S. Zebrowski and Richard W. Brown
January 19, 2023	Private Party Arbitration, Kansas City Southern Railway Company vs. Vicksburg Bridge Commission, Expert Report of Nathaniel S. Zebrowski
February 14, 2023	Private Party Arbitration, Kansas City Southern Railway Company vs. Vicksburg Bridge Commission, Supplemental Expert Report of Nathaniel S. Zebrowski
April 15, 2023	Private Party Arbitration, Kansas City Southern Railway Company vs. Vicksburg Bridge Commission, Hearing Testimony of Nathaniel S. Zebrowski
September 25, 2023	United States Surface Transportation Board, Ex Parte No. 711 (Sub-No. 2), Reciprocal Switching for Inadequate Service, Verified Statement of Nathaniel S. Zebrowski and Michael R. Baranowski
December 20, 2023	United States Surface Transportation Board, Ex Parte No. 711 (Sub-No. 2), Reciprocal Switching for Inadequate Service, Reply Verified Statement of Nathaniel S. Zebrowski and Michael R. Baranowski
February 26, 2024	United States Surface Transportation Board, Finance Docket 36744, Canadian National Railway Company—Control—Iowa Northern Railway Company Verified Statement of Nathaniel S. Zebrowski
April 29, 2024	United States Surface Transportation Board, Finance Docket 36744, Canadian National Railway Company—Control—Iowa Northern Railway Company Verified Statement of Nathaniel S. Zebrowski
May 3, 2024	United States Surface Transportation Board, Finance Docket 22218, Atchison, Topeka & Santa Fe Railway Company—Operating Rights—Southern Pacific Transportation Co. Verified Statement of Nathaniel S. Zebrowski and Michael R. Baranowski.
March 14, 2025	United States Surface Transportation Board, Finance Docket 22218, Atchison, Topeka & Santa Fe Railway Company—Operating Rights—Southern Pacific Transportation Co. Reply Verified Statement of Nathaniel S. Zebrowski and Michael R. Baranowski.
August 15, 2025	United States District Court, Tarrant County, Texas, Cause No. 017-361391-25, BNSF Railway Company v. Amsted Rail Company Inc., Expert Report of Nathaniel S. Zebrowski

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Mike Baranowski heads FTI's Network Industries Strategies practice and provides strategic, financial, and economic consulting services to the telecommunications and railroad and pipeline transportation industries. He has special expertise in analyzing and developing complex costing and cash flow models, conducting detailed operations analysis, and transportation engineering. Much of his work involves providing oral and written expert testimony before courts, arbitration panels and regulatory bodies.

He is a recognized expert in railroad regulatory economics and has assisted FTI's railroad clients in a broad range of litigation and regulatory engagements involving pricing of services, contract disputes, damage calculations and analyses of the specific effects of pending or proposed changes in policy or regulation.

Some of Mr. Baranowski's representative experience includes:

- Development of strategic litigation analyses for large network industry regulatory rate proceedings based on the theory of Constrained Market Pricing and the Stand-Alone cost test. Theory assumes the existence of a hypothetical, efficient competitor and involves detailed analysis of short and long run operations, expenses, capital expenditures and revenues.
- Analysis of market dynamics effecting pricing and development of a suite of modeling tools to assess the regulatory risk of tariff and contract transportation rates for a mix of commodities and services based on key cost drivers and forecasts.
- Expert testimony related to the determination of damages in a variety of commercial contract disputes in the railroad, telecommunications, pipeline and trucking industries.
- Evaluation of market effects of proposed railroad mergers and identification of merger related efficiencies and quantification of the associated savings.

- Going concern and liquidation value estimates for railroad related assets as the basis for trackage rights and competitive access compensation.
- Develop detailed cost and revenue allocation metrics to assess relative profitability of individual asset groups or segments of complex network industries.

Mr. Baranowski holds a B.S. in Accounting from Fairfield University in Fairfield, Connecticut and has pursued supplemental finance studies at Kean College in Union, New Jersey.

Select Railroad Testimony

Surface Transportation Board

November 7, 2016	Ex Parte No. 431 (Sub-No. 4) Review of the General Purpose Costing System, Reply Comments of the Association of American Railroads, Verified Statement of Michael R. Baranowski and Benton V. Fisher
March 6, 2017	Docket No. 42142 Consumers Energy Company v. CSX Transportation, Inc., Supplemental Reply Evidence of CSX Transportation, Inc.
January 12, 2018	Docket No. FD 32760 (Sub-No. 46) BNSF Railway Company - Terminal Trackage Rights -- Kansas City Southern Railway Company and Union Pacific Railroad Company, BNSF Petition to Establish Conditions of Use and Compensation, Verified Statement of Michael R. Baranowski
July 16, 2018	Docket No. FD 32760 (Sub-No. 46) BNSF Railway Company - Terminal Trackage Rights -- Kansas City Southern Railway Company and Union Pacific Railroad Company, BNSF Rebuttal, Verified Statement of Michael R. Baranowski
April 26, 2019	Docket No. 42144 North American Freight Car Association, et al v. Union Pacific Railroad Company, Verified Statement of Michael R. Baranowski
January 26, 2021	Docket No. FD 32760 (Sub-No. 46) BNSF Railway Company - Terminal Trackage Rights -- Kansas City Southern Railway Company and Union Pacific Railroad Company, BNSF Opening Statement on Compensation, Verified Statement of Michael R. Baranowski
January 29, 2021	Ex Parte No. 704 (Sub-No. 1) Review of Commodity, Boxcar, and TOFC/COFC Exemptions, Comments of the Association of American Railroads, Verified Statement of Michael R. Baranowski and Benton V. Fisher
April 12, 2021	Docket No. FD 32760 (Sub-No. 46) BNSF Railway Company - Terminal Trackage Rights -- Kansas City Southern Railway Company and Union Pacific Railroad Company, BNSF Reply Statement on Compensation, Verified Statement of Michael R. Baranowski
May 12, 2021	Docket No. FD 32760 (Sub-No. 46) BNSF Railway Company - Terminal Trackage Rights -- Kansas City Southern Railway Company and Union Pacific Railroad Company, BNSF Rebuttal Statement on Compensation, Verified Statement of Michael R. Baranowski
June 21, 2021	Docket No. FD 36500, Canadian Pacific Ry. – Control – Kansas City Southern, Canadian Pacific Applicants' Response to KCS Reply, Verified Statement of Michael R. Baranowski

October 29, 2021	Docket No. FD 36500, Canadian Pacific Ry. – Control – Kansas City Southern, Railroad Control Application, Verified Statement of Michael R. Baranowski
February 14, 2022	Ex Parte No. 711 (Sub-No. 1), Reciprocal Switching, supplemental Comments of the Association of American Railroads, Verified Statement of Michael R. Baranowski and Nathaniel S. Zebrowski
May 27, 2022	Docket No. FD 35743, Application of the National Railroad Passenger Corporation Under 49 U.S.C. 24308(a) – Canadian National Railway Company, Post-Interim Decision Opening Submission of CN, Verified Statement of Michael R. Baranowski
July 12, 2022	Docket No. FD 36500, Canadian Pacific Ry. – Control – Kansas City Southern, Railroad Control Application, Reply Verified Statement of Michael R. Baranowski on behalf of Applicants
August 22, 2022	Docket No. FD 35743, Application of the National Railroad Passenger Corporation Under 49 U.S.C. 24308(a) – Canadian National Railway Company, Post-Interim Decision Rebuttal Submission of CN, Verified Statement of Michael R. Baranowski
February 23, 2023	Ex Parte No. 771, Alternative to URCS, Opening Comments of AAR, Verified Statement of Michael R. Baranowski
September 22, 2023	Ex Parte No. 711 (Sub-No. 2), Reciprocal Switching for Inadequate Service, Motion of The Association of American Railroads to Extend the Comment Period, Verified Statement and Written Testimony of Michael R. Baranowski and Nathaniel S. Zebrowski
December 20, 2023	Ex Parte No. 711 (Sub-No. 2), Reciprocal Switching for Inadequate Service, Reply Comments of The Association of American Railroads, Reply Verified Statement of Michael R. Baranowski and Nathaniel S. Zebrowski
May 3, 2024	Docket No. FD 22218, Atchison, Topeka & Santa Fe Railway Company -- Operating Rights -- Southern Pacific Transportation Co., BNSF Railway Company's Opening Statement and Evidence, Verified Statement of Michael R. Baranowski and Nathan Zebrowski
September 23, 2024	Docket No. FD 32760 (Sub-No. 46) BNSF Railway Company - Terminal Trackage Rights -- Kansas City Southern Railway Company and Union Pacific Railroad Company, Reply Supplementary Statement on Compensation, Verified Statement of Michael R. Baranowski
March 14, 2025	Docket No. FD 22218, Atchison, Topeka & Santa Fe Railway Company -- Operating Rights -- Southern Pacific Transportation Co., BNSF Railway Company's Reply Statement and Evidence, Reply Verified Statement of Michael R. Baranowski and Nathan Zebrowski
October 23, 2025	Docket No. NOR 42180, Evergy, Inc., Evergy Metro, Inc., and Evergy Kansas Central, Inc. v. BNSF Railway Company, BNSF Railway Company's Reply Statement and Evidence, Verified Reply Statement of Michael R. Baranowski and Nathaniel S. Zebrowski
April 20, 2026	Docket No. FD 22218, Atchison, Topeka & Santa Fe Railway Company -- Operating Rights -- Southern Pacific Transportation Co., BNSF Railway Company's Supplemental Submission, Supplemental Verified Statement of Michael R. Baranowski and Nathan Zebrowski

U.S. District Court for the Northern District of Texas, Fort Worth Division

November 7, 2017	Civil Action No. 4:16-cv-1061-O, BNSF Railway Company v. Panhandle Northern Railroad LLC, Expert Report of Michael R. Baranowski
November 22, 2017	Civil Action No. 4:16-cv-1061-O, BNSF Railway Company v. Panhandle Northern Railroad LLC, Reply Expert Report of Michael R. Baranowski
December 21, 2017	Civil Action No. 4:16-cv-1061-O, BNSF Railway Company v. Panhandle Northern Railroad LLC, Rebuttal Expert Report of Michael R. Baranowski

U.S. District Court for the Western District of Washington

December 15, 2023	U.S. District Court for the Western District of Washington, Case No. 2:15-CV-00543-RSL, Swinomish Indian Tribal Community v. BNSF Railway Company, Expert Report of Michael R. Baranowski
February 16, 2024	U.S. District Court for the Western District of Washington, Case No. 2:15-CV-00543-RSL, Swinomish Indian Tribal Community v. BNSF Railway Company, Rebuttal Expert Report of Michael R. Baranowski

Business Court of Texas, Eighth Division

April 29, 2026	Business Court of Texas, Eighth Division, Cause No. 25-BC08A-0023, BNSF Railway Company vs. CF&I Steel LP d/b/a Rocky Mountain Steel Mills, Report of Michael R. Baranowski
August 12, 2026	Business Court of Texas, Eighth Division, Cause No. 25-BC08A-0023, BNSF Railway Company vs. CF&I Steel LP d/b/a Rocky Mountain Steel Mills, Reply Statement and Supplement of Michael R. Baranowski

Arbitrations and Mediations

April 14, 2017	American Arbitration Association Case No. 01-15-0004-4830 and 01-15-0004-4931, Arbitration Between FirstEnergy Generation LLC and CSX Transportation, Inc. & BNSF Railway Company, Expert Report of Michael R. Baranowski
November 22, 2017	American Arbitration Association Case No. No. 01-16-0003-6208, CSXT Transportation, Inc. v. JEA and Florida Power & Light Co., Expert Report of Michael R. Baranowski
January 26, 2018	American Arbitration Association Case No. No. 01-16-0005-5615, BNSF Railway Company & Norfolk Southern Railway Company v. FirstEnergy Generation, LLC, Expert Report of Michael R. Baranowski
February 16, 2018	American Arbitration Association Case No. 01-16-0005-5615, BNSF Railway Company & Norfolk Southern Railway Company v. FirstEnergy Generation, LLC, Rebuttal Expert Report of Michael R. Baranowski
February 23, 2018	American Arbitration Association Case No. 01-17-0000-0130, J.B. Hunt Transport, Inc. and BNSF Railway Company, Expert Report of Michael R. Baranowski
April 17, 2018	American Arbitration Association Case No. 01-17-0000-0130, J.B. Hunt Transport, Inc. and BNSF Railway Company, Reply Expert Report of Michael R. Baranowski

June 22, 2018	JAMS REF #1100088262, BNSF Railway Company v. Union Pacific Railroad Company, Expert Report of Michael R. Baranowski
March 25, 2019	American Arbitration Association Case No. 01-17-0000-0130, J.B. Hunt Transport, Inc. and BNSF Railway Company, Expert Report of Michael R. Baranowski
April 26, 2019	American Arbitration Association Case No. 01-17-0000-0130, J.B. Hunt Transport, Inc. and BNSF Railway Company, Reply Expert Report of Michael R. Baranowski
January 18, 2021	American Arbitration Association Case No. 01-18-0001-3283, BNSF Railway Company & Norfolk Southern Railway Company, and Dynegy Midwest Generation, LLC, Expert Report of Michael R. Baranowski on Behalf of BNSF & NS
February 5, 2021	American Arbitration Association Case No. 01-18-0001-3283, BNSF Railway Company & Norfolk Southern Railway Company, and Dynegy Midwest Generation, LLC, Expert Reply Report of Michael R. Baranowski on Behalf of BNSF & NS
January 14, 2022	Arbitration between The Port of Vancouver, USA and BNSF Railway Company, Reply Expert Report of Michael R. Baranowski
May 9, 2025	American Arbitration Association Case No. 01-24-0000-5997, Schneider National Carriers, Inc. vs. BNSF Railway Company, Verified Statement of Michael R. Baranowski on behalf of BNSF Railway Company

Select Pipeline Testimony

Federal Energy Regulatory Commission

November 20, 2019	Docket Nos. OR18-7-002, et al. (Consolidated), Epsilon Trading, et al v. Colonial Pipeline Company, Prepared Answering Testimony of Michael R. Baranowski on behalf of Colonial Pipeline
March 20, 2020	Docket Nos. OR18-7-002, et al. (Consolidated), Epsilon Trading, et al v. Colonial Pipeline Company, Prepared Answering Testimony to Trial Staff of Michael R. Baranowski on behalf of Colonial Pipeline

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 36873

UNION PACIFIC CORPORATION, ET AL.
—CONTROL—
NORFOLK SOUTHERN CORPORATION, ET AL.

VERIFIED STATEMENT OF WILLIAM WILSON

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1. Introduction and Summary

I am a University Distinguished Professor of Agribusiness and Applied Economics at North Dakota State University, with sabbaticals at Stanford University.[1] I was named a University Distinguished Professor at NDSU, an honorary position, and in 2016 was named the CHS Chair in Risk Management and Trading at NDSU, an endowed position. In 2017 I was awarded the AAEA 2016 Distinguished Teaching Award and in 2026 received the CAER (China Agricultural Economics Review) Best Paper Award.

My focus is risk and strategy as applied to agriculture and agribusiness, with a particular focus on logistics, procurement, and international marketing and competition. I regularly consult with major agribusiness firms on topics related to logistics, procurement strategy, railroads, barges, ocean shipping, elevators (shuttle development), and processed products. I have over 175 refereed journal articles. I was recognized as one of the top 10 Agricultural Economists in 1995 and as one of the top 1% of agricultural economists by RePEc (Research Papers in Economics). I have students who are in senior positions in a number of large agribusinesses, including commodity companies, railroads, and food and beverage companies.

I prepared this report on behalf of BNSF Railway to evaluate the implications of the proposed UP-NS merger for agricultural markets and shippers. My opinion is that the proposed transaction presents substantial risks to agricultural shippers, receivers, and farmers.

First, the merger would reduce competition, not enhance it, by eliminating important transportation alternatives and increasing the merged railroad's ability to foreclose competing routes and carriers. Second, the merger would weaken the flexibility and shipping alternatives, or "optionality," that agricultural markets depend upon to manage risk, respond to changing market conditions, and procure supplies from the most competitive origins. Third, the merger would create significant service-related risks, both during integration and over the longer term, by increasing the consequences of service disruptions within an already highly interconnected rail network. Finally, I explain that Canada's experience with transcontinental railroads does not justify the creation of a U.S. transcontinental railroad but instead reflects a recognition that transcontinental railroads have vast market power that requires a more extensive and burdensome regulatory regime essentially to protect shippers. Together, these considerations support my conclusion that the proposed transaction would expose agricultural shippers and receivers to substantial competitive, operational, and economic risks that outweigh the claimed benefits of the merger.

[1] A summary of my vitae is in the appendix, and my complete vitae is available at https://live-ndsuedu.pantheonsite.io/sites/default/files/documents/William-Wilson-Bio.pdf?cb=4ed960c7

2. Background and Competition in Agricultural Markets

2.1 Major Agricultural Rail Flows

The major rail flows of agricultural commodities are identified and are shown in Figure 2.1 and summarized in Table 2.1. Several features of these flows are worth noting.[2]

First, the US grain marketing system is highly integrated, with numerous origins and destinations connected through the extensive rail network.

Second, there are significant export movements through the Pacific Northwest (PNW) and the US Gulf. There are also major domestic flows supporting U.S. consumer markets and providing destinations for US farmers and agricultural commodity originators.

Third, there are significant flows of agricultural commodities from central and western origins to eastern markets. These products move through important gateways.

Fourth, interchange among carriers is critical for grain shippers because it provides optionality. Specifically, being able to ship to different destination customers on different carriers is an important element of competition and strategy. Chicago is by far the most important gateway with {{ [redacted] }} of gateway traffic.

Last, the BNSF is the most important carrier for inbound gateway shipments. For outbound, the NS and CSXT are most important with equal shares of the total outbound gateway shipments.

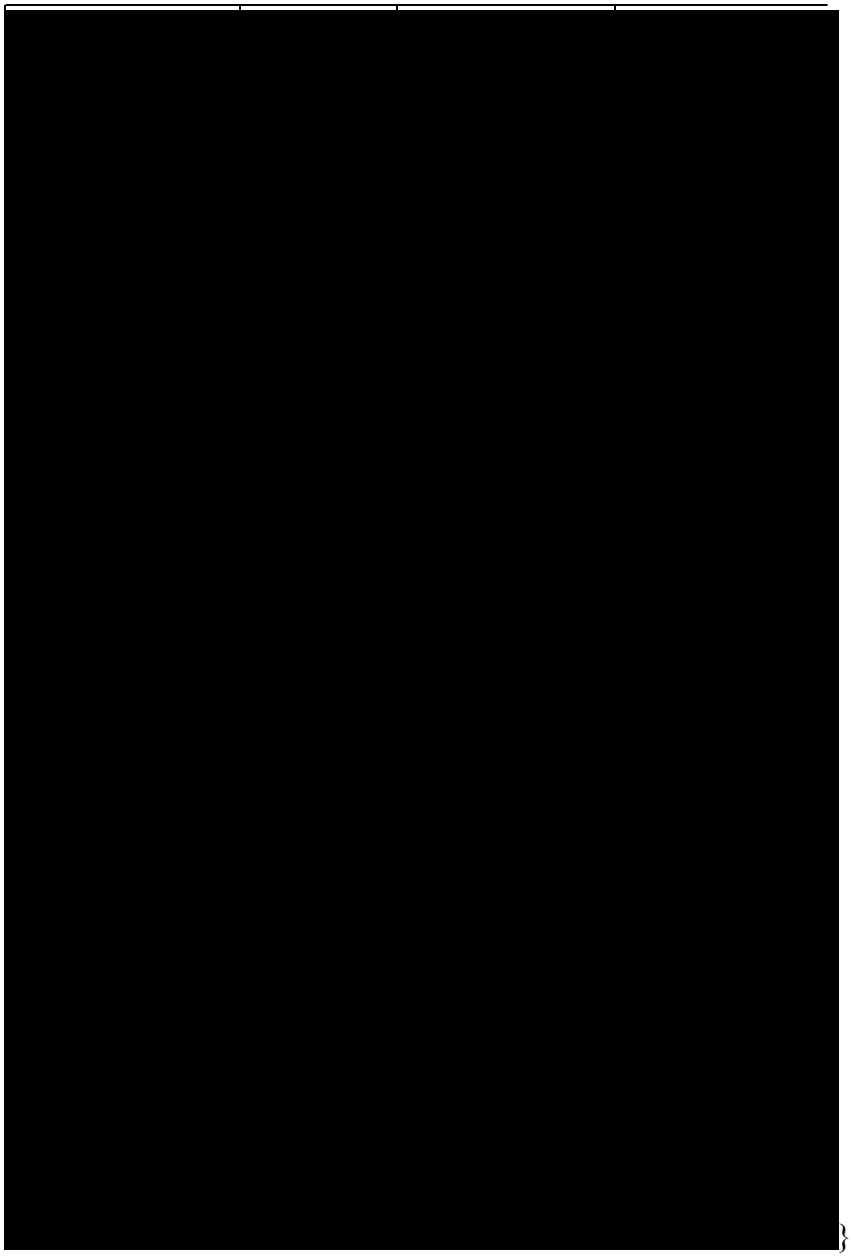
[2] The data in Figure 2.1 and Table 2.1 are derived from Dr. Bailey's 2023 build for BNSF, UP, NS and CSXT for the STCCs (0113 and 01114).

Figure 2.1 {{



}}

Table 2.1 Grain Carloads In and Out of Major Gateways 2023 {{



}}

Source: Derived from Dr. Bailey's 2023 build for BNSF, UP, NS and CSXT for the STCCs (0113 and 01144).

2.2 The Grain Marketing Industry is Highly Competitive and Depends on Optionality

The rail transportation network described above is the foundation for a thriving and dynamic grain marketing system. Competition within the US grain marketing system is highly competitive. This is an important factor in assessing the impact of a rail merger because, as a result of the competition in that grain marketing system, any changes in costs or restrictions are reflected almost immediately and fully in prices for growers or consumers.

Table 2.2 shows measures of concentration across different segments of the grain marketing industry. Two measures of concentration are shown: CR4 and HHI. The CR4 (four-firm concentration ratio) reports the combined market share of the four largest firms in the market. The Herfindahl–Hirschman index (HHI) summarizes concentration across all firms in the market by summing the squared market shares of all firms. The HHI produces a value that ranges from near zero (extremely competitive industry) to 10,000 (a monopoly). Lower values suggest more competition, no single firm dominating, little market power, and little to no differentiation (Besanko et al., 2016).[3]

Under U.S. antitrust procedures, lower CR4 and HHI values indicate more competitive markets, while higher values indicate greater concentration and potentially greater market power. Here, the results indicate that buyers and sellers face substantial competitive pressure.[4] These results suggest that the grain marketing industries are strategically defined as competitive. In other words, the competition is so intense that the ability of any individual firm to exert an influence on price or trade terms is minimal. Thus, in these segments, firms have limited ability to absorb higher transportation costs because they compete directly against alternative suppliers and origins. The results indicate that the US grain handling sector is "fiercely" competitive. This is especially true for storage, port, and terminal facilities.

Table 2.2. US Grain Handling Functions CR4s and HHIs

Function	CR4	HHI	Top 4 Firms
Grain Storage	23	255	ADM, CHS, Cargill, (Gavilon CGB tied)
Port Facilities	31	518	ADM, Cargill, CHS, Viterra
River Facilities	70	1535	CGB, ADM, Cargill, Gavilon

[3] The HHI is also used in merger guidelines. The US FTC 2023 Merger Guidelines indicated markets with an HHI greater than 1800 are highly concentrated (whereas the 2010 guidelines referred to markets with HHI greater than 2500 as highly concentrated), and HHI between 1500 and 2500 as moderately concentrated). In Canada, a post-merger HHI threshold is 1800. In anti-trust enforcement, the HHI is used as a threshold and may/should be supplemented by other metrics and considerations.

[4] Measures of industry concentration were derived from recent data for the U.S. grain handling sector. (Wilson, Bullock and Dubovoy (2025a, 2025b)

Function	CR4	HHI	Top 4 Firms
Terminal Facilities	34	473	ADM, Andersons, Cargill, (Bunge, Gavilon, Scoular)

*This data is from Sosland Publishing (2024) and derived for 2024.

The concentration levels are similar for the export grain trading industry. The most recent study (Wilson, Bullock and Dubovoy 2025a, 2025b) indicated the CR4 was 31 and HHI 855. The dominant firms are ADM, Andersons, Cargill and Bunge (which acquired Viterra), and Scoular. Like the grain marketing functions above, these values indicate that competition is fierce and would not raise concern under the DOJ merger guidelines.

2.3 Importance of Geographic Competition

Agricultural markets are characterized by intense geographic competition, meaning that buyers routinely evaluate supplies from multiple origins and select the source that can be delivered at the lowest total cost. Transportation costs are therefore a critical determinant of competition because relatively small changes in rail rates, service, or market access can shift purchases from one origin, carrier, or region to another. Farmers, elevators, processors, and exporters all benefit from having multiple transportation and marketing alternatives because those alternatives create competitive pressure and allow market participants to respond to changing commodity prices, production conditions, quality differences, and customer demand.

Market participants (buyers, traders, sellers, etc.) compete by continually identifying the lowest-cost supply source that can satisfy customer requirements. As a result, successful firms maintain access to multiple origins, transportation routes, suppliers, and customers. This flexibility, commonly referred to as optionality, allows market participants to respond to changing market conditions. Reducing those options through foreclosure or other restrictions diminishes that value and raises the costs and risks borne throughout the agricultural supply chain.

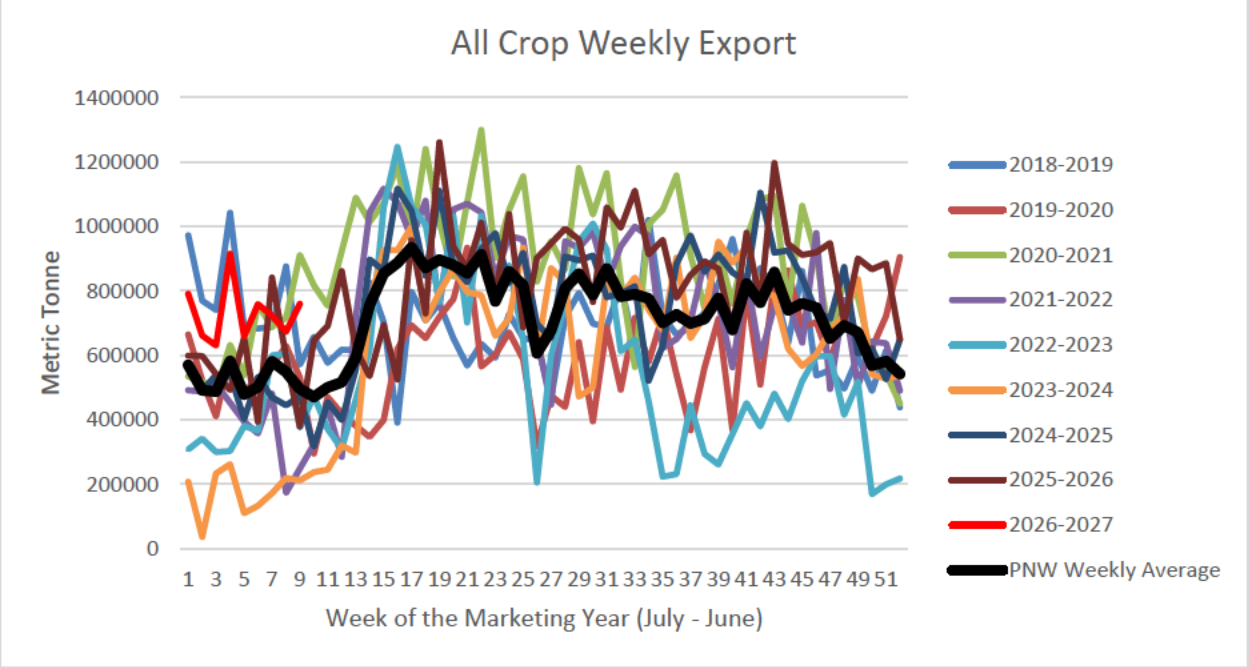
The ability to switch among origins, destinations, and carriers is therefore an important source of optionality in agricultural markets. If those alternatives are reduced through foreclosure or other restrictions, agricultural shippers lose flexibility, competition is weakened, and the value of the underlying commodity is diminished because fewer markets remain available to buyers and sellers. Ultimately, the merger will reduce options and thereby harm competition.

2.4 Grain Marketing is Subject to Numerous Sources of Risk

There are many unexpected events that affect grain marketing decisions and competition, ultimately creating substantial risk for grain shippers and merchandisers. These risks include crop production uncertainty, the timing of farmer sales, quality variability, rail performance, and fluctuations in international demand, competition, and logistics, including railcar and vessel demurrage costs. To illustrate the variability of grain movements, Figures 2.2 and 2.3 show

weekly grain and oilseed exports through the Pacific Northwest (PNW) and U.S. Gulf (USG) export corridors from 2018 to the present. The data demonstrates two important characteristics of agricultural commodity movements: (1) shipments are highly volatile, and (2) export demand is strongly seasonal. In addition, transactions are typically for fairly short durations.[5] As a result, shippers face substantial risk in part because they have to make rail car acquisition decisions for longer durations. For these reasons, exporters have to anticipate exports when planning rail logistics, and any aberrations affect execution of the supply chain strategy.

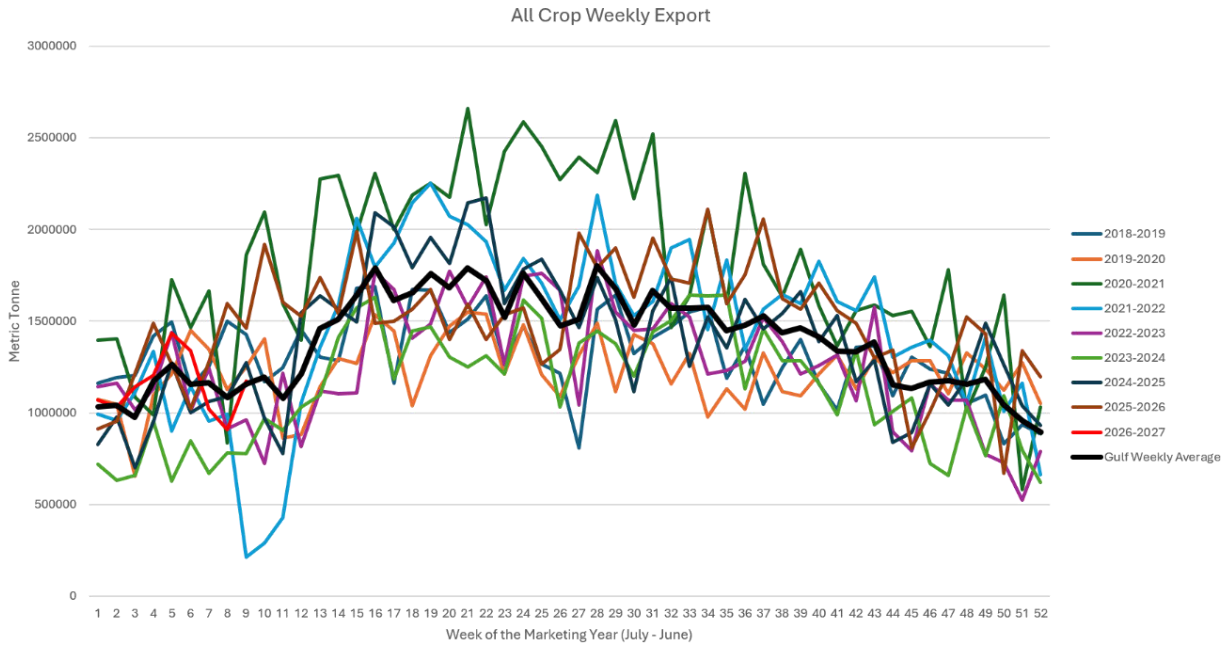
Figure 2.2 Weekly Grain and Oilseed Exports from the PNW



Source: https://fgisonline.ams.usda.gov/ExportGrainReport/default.aspx

5. A survey of traders suggested that wheat was predominantly purchased for shipments 4 months forward. Reuters (2023) indicated that buyers in key importers across Asia, the Middle East, and Africa are making forward purchases for only about two to three months of their future demand.

Figure 2.3 Weekly Grain and Oilseed Exports from the US Gulf



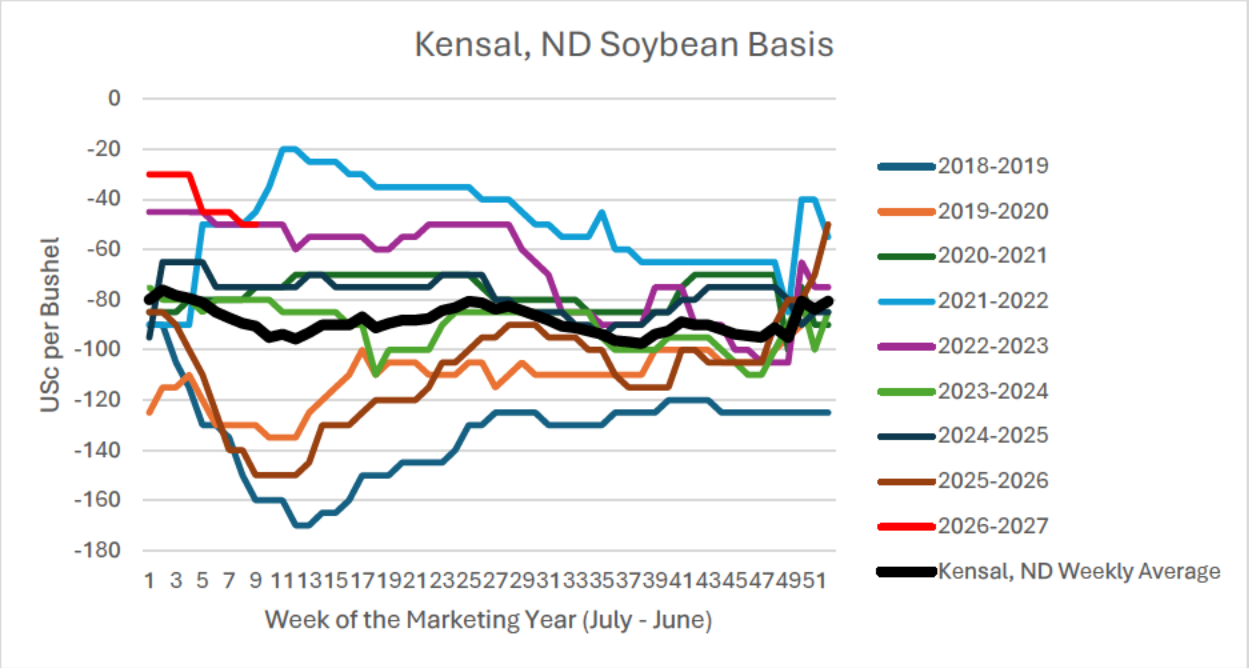
Source: https://fgisonline.ams.usda.gov/ExportGrainReport/default.aspx

As seen in these Figures, commodity shippers must continuously anticipate changing export demand when planning rail logistics while also competing with foreign suppliers such as Brazil, whose competitiveness is largely influenced by relative logistics costs.[6]

The risks facing agricultural marketers are also driven by the variability of two critical components of transaction costs: basis levels and rail transportation costs. Basis, defined as the difference between the local cash price and the relevant futures price, represents the effective purchase or sale value for hedged grain handlers and processors. Figure 2.4 illustrates soybean basis levels at Kensal, North Dakota, from 2018 through 2026. The figure shows that basis values are both highly seasonal and highly volatile, creating significant risk for both originators and receivers of grain. Similar patterns are observed across most commodities and producing regions.

[6]An important competitor is Brazil that competes intensively with the United States for both soybean and corn shipments (Kamrud, Wilson and Bullock, 2023; Wilson and Bullock, 2025). The scope of competition is primarily logistical competition. Hence, anything that raises US logistics costs gives an advantage to Brazil in the highly competitive soybean and corn markets.

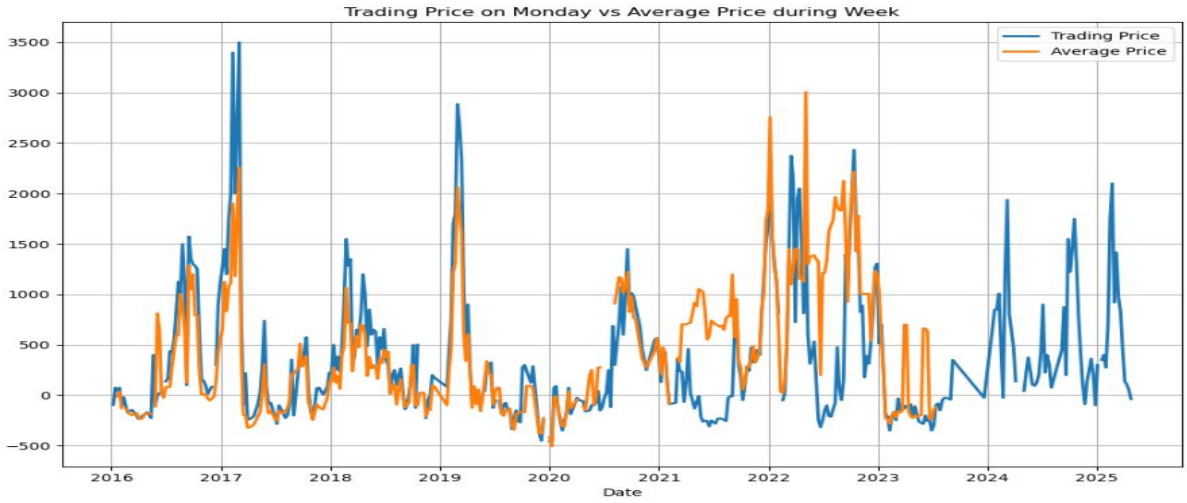
Figure 2.4 Basis for Soybean at Kensal, ND 2018-2026



Because basis reflects the interaction of local supply, demand, quality conditions, and transportation costs and constraints, unexpected changes in any of these factors can materially affect merchandising margins and shipping decisions.

A second major source of risk is transportation cost variability, particularly as reflected in secondary railcar values. Grain shippers acquire railcars for use either through railroad-administered auctions (the primary market) or through a tradable secondary market. Figure 2.5 shows secondary market railcar values for grain shipments, which fluctuate dramatically over time.

Figure 2.5 Rail Secondary Car Values for Grain



Recent values have ranged from negative levels to approximately $3,500 per car, while historical values exceeded $5,800 per car during periods of exceptionally strong demand. These fluctuations reflect changing market conditions, including rail performance, equipment availability, fuel-related charges, seasonal shipping demand, and competition among users of transportation capacity. Together, the volatility of basis and railcar values illustrates the substantial uncertainty confronting grain marketers and highlights the risks that must be managed when coordinating commodity procurement, merchandising, and transportation logistics.

The risks inherent in agricultural markets, and the critical importance of optionality in these markets, are manifested in frequent market disruptions, such as those that occurred during the September 2026 soybean harvest. Excessive rainfall across major soybean-producing regions delayed harvest activity, reduced crop availability, created quality concerns, and severely constrained supplies available to processors (Reuters, 2026). Soybean crushers across the Midwest responded by offering unusually large delivery premiums in an effort to secure limited supplies, while some processing plants reduced operations because they were unable to obtain adequate soybean inventories. At the same time, concerns regarding mold, sprout damage, and other quality issues increased the risk of discounts and reduced marketability for producers. The disruption illustrates how unexpected weather events can simultaneously affect production, quality, basis levels, procurement costs, transportation requirements, and processing margins. As supplies became misaligned with processor demand, abnormal commodity flows developed, requiring railroads and shippers to identify alternative sourcing and routing strategies. Having the availability of numerous purchasing and transportation options was critical to market participants.

The grain marketing industry has developed a number of mechanisms to reduce or manage these risks, and many rely heavily on optionality and the ability to change direction

when market conditions change.[7] One example is the rail car market, which comprises primary auctions and values from secondary transactions. These allow shippers to reduce risks up to 12+ months forward through either mechanism. These mechanisms include optionality, which is fundamental to their utility. The optionality allows shippers to take forward positions in anticipation of a rail transaction but sell it if it becomes more profitable not to ship. The primary transaction instrument includes the option to sell the commitment at any time before the shipping date. The secondary market transaction also allows the instrument to be sold. The shipper can also choose a more precise delivery period as well as the route on which the shipment is made.

3. The Proposed Transaction Would Pose Risks of Foreclosure for Agricultural Shippers

3.1 Background

A principal competitive concern raised by the proposed UP-NS merger is the risk of foreclosure. In this context, foreclosure refers to the merged railroad's ability and incentive to limit competing railroads' access to customers by controlling critical routes, gateways, or connecting movements. (Rey and Tirole, 2007). Foreclosure can occur even when a route remains physically open if pricing, service, or operating conditions make a competing routing commercially impractical. (Salop and Scheffman, 1983, 1987).[8]

Agricultural shippers and other stakeholders have raised these concerns because agricultural markets depend heavily on transportation alternatives and shipping flexibility. As discussed in Section 2, the ability to choose among origins, destinations, and carriers creates valuable optionality for farmers, grain shippers, processors, and receivers. If the merger reduces or eliminates those alternatives, agricultural shippers could face higher costs, fewer competitive options, and reduced access to markets. This section addresses the extent to which the proposed merger may create opportunities for foreclosure and the resulting loss of optionality.

3.2 Motives and Implications of Foreclosure

The proposed merger would give UP-NS control over both the originating movement on UP and the connecting movement from major gateways to destinations on the NS network. This control would also exist for westbound movements on the merged railroad. As a result, the merged railroad would have both the ability and incentive to divert traffic away from competing railroads, such as BNSF, and onto its own routes.

Even if gateways remain formally open, UP-NS could make competing routings less attractive by increasing rates, particularly on the NS leg of a shipment, and/or imposing less

[7] These mechanisms are described in Wilson and Dahl (2005) and have been the subject of recent empirical analysis (Lakkakula & Wilson, 2021; Wilson & Lakkakula, 2021; Bullock & Wilson, 2020).

[8] This interpretation closely aligns with the current DOJ/FTC formulation: the agencies explicitly recognize "routes to market" and worsening rivals' access terms as possible foreclosure mechanisms.

favorable terms, or providing service advantages to traffic originating on its own network. The practical effect would be to steer traffic toward UP origins and away from competing railroads. This incentive is particularly strong because the merged railroad would capture the entire movement when traffic originates on UP rather than on a competing carrier. By increasing the cost of competing routings through the gateway, UP-NS could increase the likelihood that receivers purchase from UP-served origins and reduce the effectiveness of competition from railroads such as BNSF.

The implications of potential foreclosure are legitimate concerns. The Canadian National–Illinois Central (CN–IC) merger provides an important example. In approving the merger in 1999, the STB required CN–IC to honor its commitment to maintain the Chicago interchange gateway with Canadian Pacific (CP), including cooperation in establishing reasonable joint rates and efficient through service for North Dakota grain shipments moving to the US Gulf export markets (STB, 1999, pp. 159–161). Shipments {{ [redacted] }} immediately after the merger and {{ [redacted] }}. See Figure 3.1 below.[9]

Figure 3.1. Grain Shipments Interchanged at Chicago from CP to CN and Terminating at the US Gulf: {{

[redacted]

}}

The proposed CGP does not effectively address foreclosure concerns for agricultural shippers. Notably, UP's CGP proposal to provide competitors with formula-driven rates for a limited set of movements for the duration of an oversight period includes nothing to protect rail competitors and revenues in the post-CGP period. This is critical because agricultural marketing

[9] This chart in 3.1 was provided to me by FTI.

and processing assets are long-lived and often span up to 50 years. Thus, an assurance for an oversight period is a puny guarantee. The CGP proposal also does not include any provisions to prevent UP-NS from adjusting its own rate relative to BNSF to capture the traffic. Significant questions remain about how CGP would work in practice, and the 70th percentile benchmark rate is unexplained and could raise rates for some customers simply as a result of the math.

The competitive concerns are further exacerbated because the merged railroad would possess information that its competitors do not. An important feature of the UP-NS proposal is that the UP-NS knows the rate it provides BNSF, but BNSF does not know the rate the UP-NS is assessing on its own movement. In industrial economics, this is referred to as an asymmetry. Economic theory and business experience both recognize that competition under asymmetric information tends to favor the firm possessing superior information, allowing it to make pricing and service decisions that place rivals at a disadvantage.[10] Thus, under the proposed structure, BNSF would be at a disadvantage.

3.3 Data and Analysis

I used data compiled by FTI for 2023 to illustrate the potential foreclosures that would occur in response to the UP-NS merger. The data were developed by FTI using Dr. Bailey's combined waybill data. The criteria used to define the lanes subject to potential foreclosure are:

- Traffic originating on BNSF and terminating on NS (or vice versa), limited to STCC 01 and STCC 20 traffic
- The facility on the BNSF end must be accessible to UP (and also not accessible to NS)
- The facility on the NS end is not accessible to CSXT (and also not accessible to BNSF)
- UP or NS does not serve both the origin or destination facilities on the lane

In other words, these are STCC 20 and STCC 01 Origin-Destination lanes currently moving via BNSF and NS, where the NS end is closed to CSXT in the east, the BNSF end is open to UP in the west, and UP or NS or BNSF cannot serve single-line pre-merger. As such, UP will have the incentive to replace BNSF for the western portion of these moves going to/from closed NS facilities.

For purposes of these maps, the western origins were aggregated into 4 western quadrants based on the state. The eastern destinations were at the station/facility level. Hence, each dot represents a station/customer facility. Stations were defined as closed using SCRS data.

The mapping methodology identifies these as "potentially foreclosed" BNSF-NS lanes. The results are shown in Figures 3.1-3.4. The results show that there are a large number of movements from the western and central United States to eastern consumer markets that are

[10] Specifically, the UP-NS would have better information for making its pricing decision (relative to the BNSF), which can translate into a competitive advantage depending on demand, costs, and how shippers allocate demand between the two carriers (Belleflamme and Peitz, 2015).

subject to prospective foreclosure. The origin regions with the most origins subject to potential foreclosure are the North Central and South Central.

Figure 3.2 Potentially Foreclosed BNSF Lanes for Agriculture Northwest {{



}}

Figure 3.3 Potentially Foreclosed BNSF Lanes for Agriculture Southwest {{



}}

Figure 3.4 Potentially Foreclosed BNSF Lanes for Agriculture North Central {{



}}

Figure 3.5 Potentially Foreclosed BNSF-Lanes for Agriculture South Central {{



}}

These maps illustrate the concerns that have been raised by numerous agricultural shippers and organizations. Agricultural shippers have recognized the risk and potential harm coming from the foreclosure of competition resulting from the merger. Senator Marshall (R-KS) has also noted that Kansas agricultural shippers are concerned:

> *"Today, competition among railroads helps keep rates in check and incentivizes good service….This merger would leave roughly 240 rail-served facilities in Kansas captive to the newly consolidated railroad, which will have every incentive to keep traffic on its own network and limit access for example to eastern markets that today are reached through competition between Norfolk Southern, CSX, and originating western carriers." (Marshall, 2026).*

Notably, Kansas is the largest wheat-producing state, producing hard red winter wheat (HRW), which is the dominant class used in US bread baking. The UP dominates origins in Kansas, although BNSF also serves Kansas with fewer origins and provides competition. Wheat is a very important crop and as shown below is the 2nd most important commodity impacted by the

merger. Hence, the Senator has valid concerns that the merger will allow UP to expand its market power and reduce shipper options in Kansas by foreclosing BNSF from important lanes.

3.4 Which Sectors Will Be Impacted the Most

The potential for foreclosure risks depicted in these figures is concentrated in specific commodities, shippers, receivers, and geographic regions that depend heavily on rail competition and routing alternatives. The results below identify the agricultural sectors most exposed to the loss of optionality resulting from the proposed merger. [11]

In total, there are {{ }} lanes that are subject to potential foreclosure, which is {{ }} of the total BNSF-NS lanes analyzed. Table 3.1 is a summary of the major shippers impacted by potential foreclosures. There are {{ }}

Table 3.1. Major Shippers Impacted by Potential Foreclosure {{

}}

Table 3.2 summarizes receivers impacted by potential foreclosures. {{ }} Receivers are less concentrated than shippers.

[11] The data for agriculture traffic in these tables is for STCC 01/20 (farm/food products).

Table 3.2. Major Receivers Impacted by Potential Foreclosures {{



}}

Commodity concentration is summarized in Table 3.4[12]. The most impacted commodities are frozen potato products, wheat, malt, cottonseed, and wine. Results indicate that {{ }}

Table 3.3. Major Commodities Impacted by Potential Foreclosures {{



}}

[12] 7-digit STCC codes describing the same product (e.g., the separate codes for shelled corn) are combined.

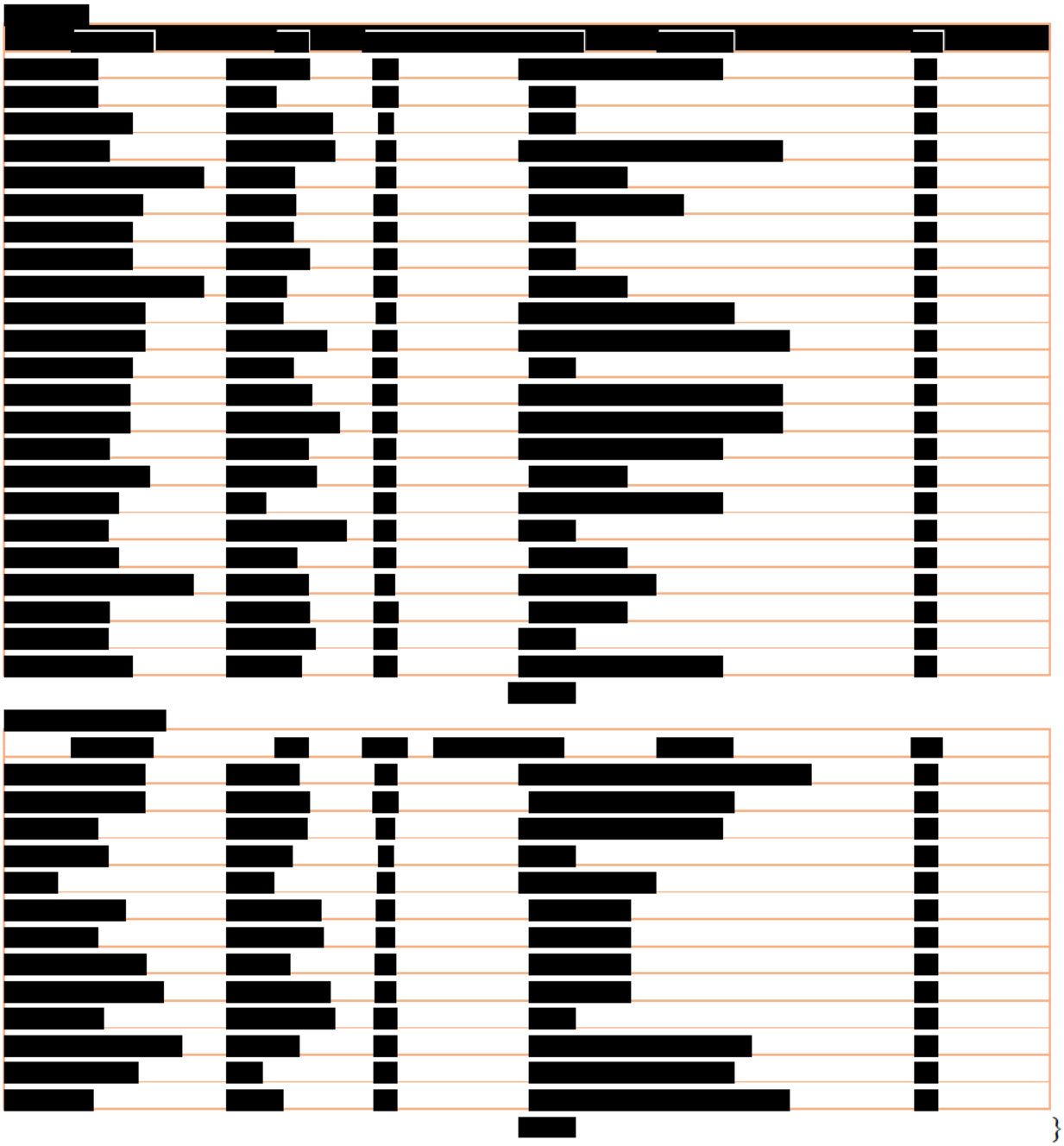
3.5 Impacts of the Merger on Wheat Flour Milling

One sector that will be drastically impacted is wheat flour milling. The results above highlight this importance: wheat is the 2nd-largest segment impacted. {{ [redacted] }} are key players. Since the merger would have a prospectively important effect on this sector, I highlight below a few observations for illustration.

To explore this, Table 3.4 shows the flour mills served by the NS and the UP. As shown, there are {{ [redacted] }} mills served by the NS and {{ [redacted] }} by the UP. The total milling capacity for these mills is 319,728 cwt. These mills represent 20% of the U.S. milling capacity, which would become closed to the UP-NS.[13] In addition to these, there are {{ [redacted] }} mills that are served by more than one carrier (typically 2), and one is either the UP or NS. The capacity of these additional mills is 403,500 cwt. The total milling capacity is 1,572,748 cwt. Thus, the merged UP/NS would have access to 46% of the wheat flower milling capacity in the United States. Of that total, UP/NS would have sole access to 20% plus access to an additional 26% over which they have the potential to exercise leverage and foreclose competition.

[13] A list of all the mills in the US industry and serving carriers is in my workpapers.

Table 3.4. Wheat Flour Mills on NS and UP with No BNSF Access {{



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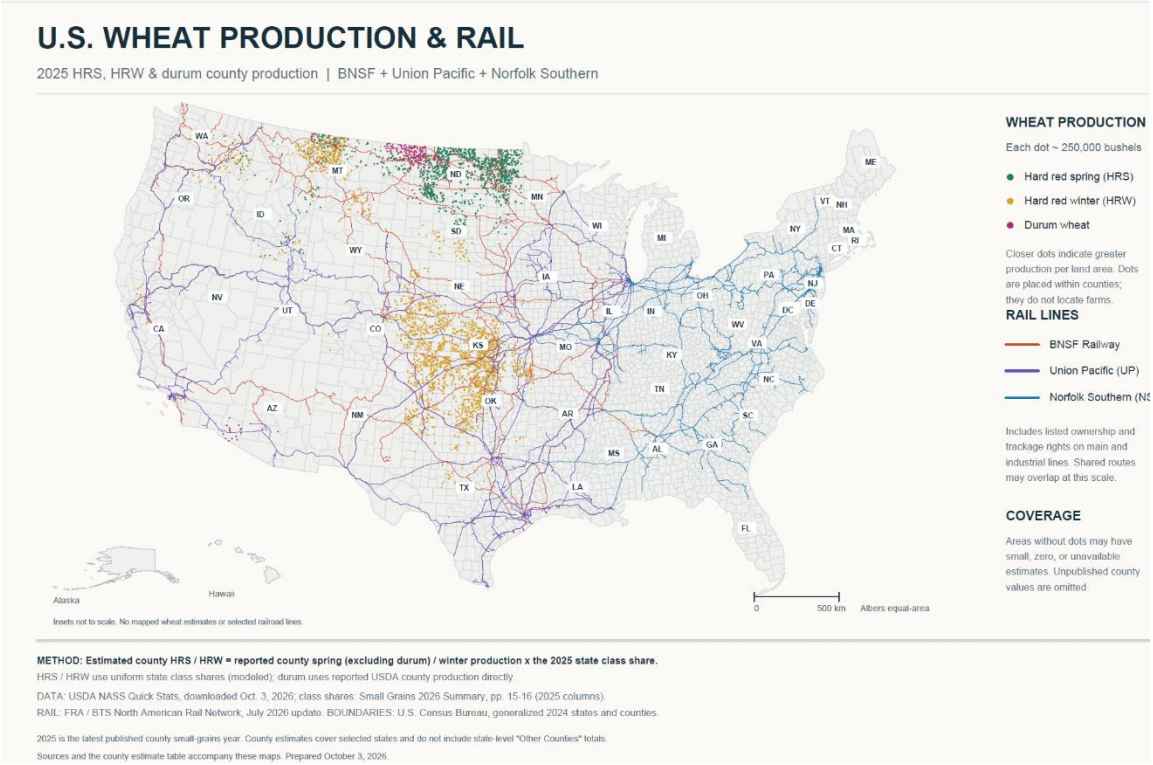
Source: BNSF, derived from data from Milling Annual, Sosland Publishing (US Flour mills- for USW cleaned)

It is worth noting that of the NS mills, 8 of them mill Hard Red Spring (HRS) wheat, and 1 is exclusively durum. These wheat classes are produced in North Dakota, Western Minnesota, and Eastern Montana and virtually all the origins for these classes are BNSF. See Figure 3.6. UP has limited access to these wheat classes and generally at higher cost. Any foreclosure of BNSF resulting from the merger likely means the cost to the mills that use these classes of wheat will increase. The full impact would likely be higher costs of wheat to flour mills, meaning higher flour and semolina prices to bakers and pasta manufacturers, and ultimately higher prices for their products, etc.

Figure 3.6 Wheat production by class (Hard Red Spring, Durum and Hard Red Winter) and Major Class I railroads



3.6 Impacts of Potential Foreclosure on Shippers and Receivers

I explained in Section 2 that the grain marketing industry is highly competitive. This is fostered in part by the multitude of options that provide flexibility to shippers and receivers throughout the marketing system. As a result, market participants continually seek shipping alternatives, or combinations of alternatives, that reduce costs.

The prospective impact of foreclosure affects this regime sharply. To summarize my concerns, there are five potential impacts of foreclosure on this competitive market.

1) Any foreclosure would reduce flexibility, or optionality, for the receiver (or shipper). By losing a procurement option, the receiver has less flexibility and would be required to buy from a single-source origin(s), which may not be the least-cost option. The origin would unlikely always be the least-cost option and, as such, would be forced to make purchases, at least some of the time, from a sub-optimal origin and carrier.
2) The impacts of losing optionality include higher costs and higher risk (as shown in section 4).
3) For originators (farmers, elevators), there is a comparable loss of optionality.
4) In the specific case of wheat flour milling, the combined UP-NS would have sole access to 20% of the wheat flour milling capacity in the United States and the potential to exercise leverage and foreclose competition over an additional 26% of the market. This is substantial and represents far greater concentration levels than are characteristic of other sectors of the wheat flour milling industry.
5) A longer-term implication is that the loss of optionality will reduce investment by processors. Optionality is highly valued by receivers that process grain, and the loss of optionality would be seen as increasing the cost and riskiness of new investments. Receivers always seek to have multiple options; otherwise, they would be 'held hostage' (using language of industrial strategy) to the carrier. Indeed, the current system of open gateways with competitive outbound shipping to the destination is highly desirable for investors in agricultural processing and marketing infrastructure. Without that optionality, investors would likely eschew future investments in locations with access to origins served by a single carrier. Processors would likely be highly hesitant to invest in capacity for destinations without origin options.

4. The Proposed Transaction Would Reduce Optionality for Agricultural Shippers

As I explained in the Sections above, agricultural markets are inherently uncertain. Crop production, weather, commodity prices, quality, export demand, transportation costs, and rail service conditions change continuously. As a result, agricultural shippers and receivers place substantial value on flexibility. In this statement, I refer to that flexibility as optionality: the ability to choose among alternative origins, destinations, suppliers, carriers, and transportation routes as conditions change. Optionality allows market participants to respond to disruptions, secure the lowest-cost supply, and manage risk. As such, optionality has value and is an important contributor to the efficiency and competitiveness of agricultural markets.

Optionality is particularly important because agricultural commodities compete in highly competitive regional, national, and international markets.[14] Grain processors, flour mills, food

[14] Optionality is well established in the commodity trading industry in both descriptive and empirical studies. Specifically, see Sødal, Koekebakker and Aadland, 2008; Meersman, Rechtsteiner and Sharp,

manufacturers, livestock producers, exporters, and farmers all benefit when they can obtain supplies from multiple origins and move products over multiple transportation routes. Indeed, new agricultural processing plants always seek locations that offer service from multiple carriers to exploit optionality. Importantly, when one source becomes unavailable, too expensive, or unreliable, market participants can shift to an alternative source. This ability disciplines transportation providers, lowers costs, improves service incentives, and reduces exposure to unexpected disruptions. Conversely, when alternatives are eliminated, shippers become more dependent on a smaller number of transportation options and bear greater costs and risks.

The proposed UP-NS merger would reduce optionality by increasing the merged railroad's ability to foreclose competing routing alternatives. Although a shipper may still have physical access to a destination, the merged railroad would possess greater ability to influence whether competing routes remain commercially viable. As alternatives become less effective or disappear altogether, agricultural shippers lose flexibility, competitive options diminish, and transportation risk increases.

To illustrate the practical importance of optionality, I examined two representative agricultural movements that could be affected by foreclosure: (1) shipments of hard red spring (HRS) wheat to the Clifton, New Jersey flour mill and (2) shipments of sugar to Hershey, Pennsylvania. These case studies illustrate the effects of the merger on agricultural shipping and are used to derive the value of that optionality.[15] They provide examples of how the loss of routing alternatives can impose costs on agricultural shippers. The results demonstrate that optionality has measurable economic value and that this value can arise in different ways. In some markets, such as wheat, optionality creates value because shippers can switch among competing origins as relative costs change over time. In others, such as sugar, the primary value comes from preserving access to a lower-cost source of supply. In both cases, reducing optionality exposes shippers to higher costs and greater dependence on a single transportation alternative.

4.1 Case Study: Hard Red Spring (HRS) Wheat to Clifton, NJ.

Clifton is one of the larger and more modern wheat flour mills in the United States. It buys hard red spring wheat (HRS), a major wheat class produced in the upper Midwest and used

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2012; Stopford, 2009; Bastian-Pinto, Brandão and Hahn. 2009; Blas, and Farchy, 2021. And my own studies and interviews: Johansen and Wilson. 2019; Wilson and Klebbe, 2021 and 2024; Wilson, Bullock and Dubovoy, 2025a and 2025b; and an interview reported in Kingsman, 2019.

[15] A detailed empirical model was developed to estimate the option value of being able to switch origins. This was specified as a real option model using stochastic simulation procedures and solved using Analytica. The model is similar to the empirical models of real options in commodity marketing, including Johansen and Wilson (2019) and Wilson and Klebe (2021, 2024). The details of this model, including background data, statistical distributions, simulation procedures, and calibration, are in my workpapers.

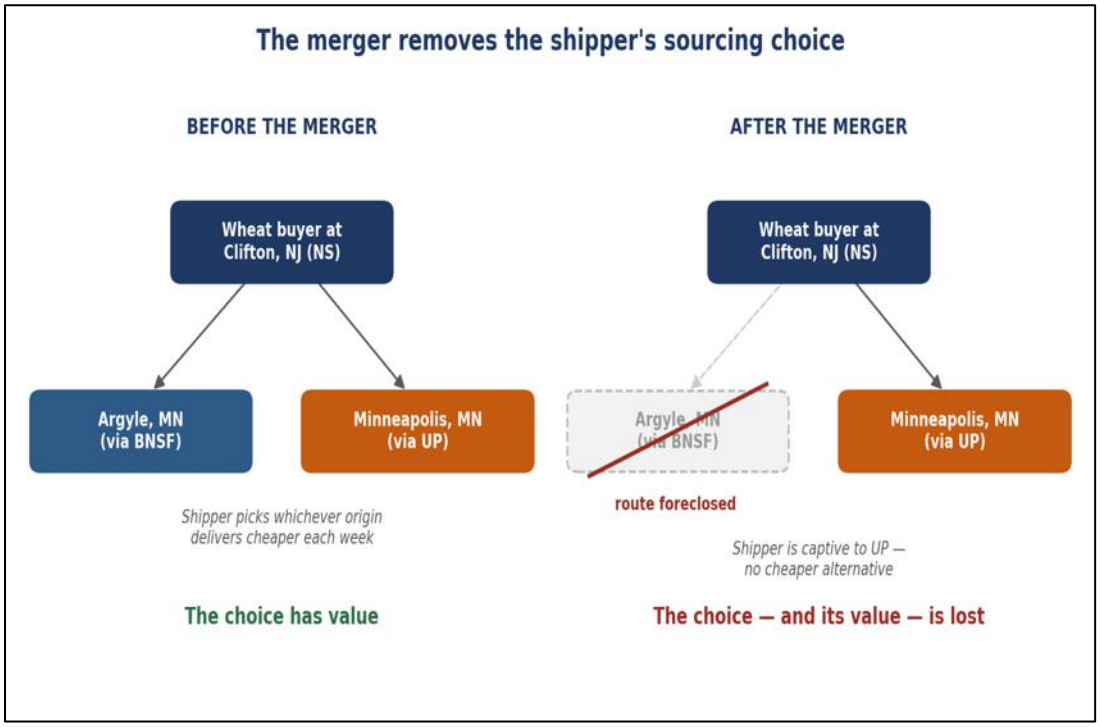
for bagels, pizza crusts, etc., and blends it with other wheat to make conventional bakery flour. The NS serves Clifton, and two of its important origins are Argyle, Minn. on the BNSF, and Minneapolis, which can be served on the UP. In both cases, the shipments go through Chicago with an interchange to NS. See Figure 4.2, which shows a map of these locations and carriers.

Figure 4.2 Spatial and Rail Competitive Routes for HRS to Clifton, NJ.



The options for the receiver are illustrated in Figure 4.3. Before the merger, the wheat buyer in Clifton can buy from either Argyle on the BNSF or Minneapolis on the UP. After the merger, in a strict foreclosure scenario, the buyer can buy only from Minneapolis.

Figure 4.3 Shipper Option Before and After the Merger



Several factors influence this choice: origin price (basis, defined as the difference between the cash and futures price), rail costs and performance, secondary rail car values, farmer deliveries, and wheat quality (vomitoxin, sprout damage, farinograph values). The sum of these values is the net cost delivered to Clifton. These values vary over time and across origins, so origination decisions depend on the risks associated with these factors.

The variability of net cost is shown in Figure 4.4.[16] The figures show the simulated net costs[17] of wheat delivered to Clifton, including the origin basis, rail costs (inbound and outbound tariffs), and secondary car values. As seen in the Figure, while the net cost for each origin changes over time, those changes are not highly correlated. Sometimes the net cost for one origin is significantly higher than the net cost for the other origin; sometimes it is lower; and

[16] The data in Section 3 is for 2023, and that used in Section 4 is 2024. Data for 2024 is used here for the purpose of using the most recent year for which the data was available.

[17] Figure 4.4 shows the net costs resulting from simulations using the probability distributions and correlations of the random variables. Specifically, the values in Figure 4.4 were simulated weekly net costs of HRS wheat delivered to Clifton, NJ from Argyle, MN (BNSF) and Minneapolis, MN (UP), in $/car. They include: (i) origin basis (basis is the origin cost of wheat relative to futures price); (ii) rail tariffs from origin to the Chicago

sometimes the costs are close. In fact, the basis values are correlated at {{ }}, which is {{ }}. On average, the BNSF origin costs {{ }} per car. In the model, BNSF is the {{ }}, and the UP origin is {{ }}.

Figure 4.4 Net Cost Delivered to Clifton from Argyle (BNSF) and Minneapolis (UP) {{



}}

It is clear that switching between these origins is valuable as net costs change. Simply, the buyer can buy from whichever origin is lower cost for a particular week. But if the option of using BNSF were foreclosed, or even discouraged through service interruptions or impaired service, the buyer's cost would significantly increase. The option value comes from origin-choice variability and from Argyle's cost advantage. Argyle is the least-cost origin in {{ }} of weeks and Minneapolis in {{ }} of weeks.

If the shipper can choose the least-cost origin each week, the mean net cost to the buyer with optionality is {{ }}. But if the shipper is forced to purchase from UP, the mean net cost is {{ }}. The difference is {{ }} per car, or about {{ }} of the captive delivered cost of {{ }} per car, which is the value of the lost option. Losing the option would therefore raise the average delivered cost by {{ }} per car because the shipper can no longer switch to the lower-cost origin.

It is not possible to determine how the proposed CGP would affect the foreclosure cost, even with CGP in effect, since much would depend on how it was implemented. Even if some BNSF movements were preserved while CGP was in effect, that mechanism is proposed to be

terminated at the end of the STB oversight period. At that point, it is clear that the foreclosure costs would be incurred. And given the long-term nature of investments and relationships in this industry, the prospect of those increased costs on originating shippers and receivers would have an immediate harmful effect.

4.2 Case Study: Sugar from Idaho (UP) and Minnesota/North Dakota (BNSF) to Hershey, PA

My second case study involves sugar and is related to a submission made by USPR in this proceeding, where USPR registered its concern about foreclosure occurring if the merger is authorized. Sugar and sweetener users are exposed to the merger, and Hershey Chocolate is among the largest sugar recipients. The implications of the proposed merger on the Sugar industry are very important and were highlighted by USPR. For this reason, I also sought to measure the value of optionality to a sugar shipper and the cost to that shipper if the option is foreclosed.

Hershey's plant in Hershey, PA, is served by NS. Two origin regions dominate U.S. beet sugar: the Red River Valley of Minnesota and North Dakota, and Idaho. Each region processes sugar beets, and BNSF ships the Red River Valley sugar by rail. The Red River Valley plants cover nearly four times as much sugar beet acreage as Idaho. Sugar from Idaho moves on UP and is delivered by NS. Since the sugar beet plants are in the Red River Valley and not in Minneapolis, it would not be practical to originate sugar in Minneapolis on the UP. Figure 4.5 shows these origins and rail routes to Hershey.

Figure 4.5 Spatial and Rail Competitive Routes for Sugar to Hershey, Pa.



In this case, the sugar prices are similar, but the transportation costs differ significantly. The sugar prices are impacted by several government programs, trade policy, and domestic and

international production. USDA's sugar program combines nonrecourse loans, marketing allotments, and tariff-rate quotas, which normally keep U.S. prices above world prices. Both regions operate within the same program, but there are pricing differences that reflect beet quality, processing efficiency, storage, cooperative performance, and transportation.

Figure 4.6 shows the two price series for sugar from January 2000 to August 2026.[18] Three points are worth noting. First, price changes are nearly perfectly correlated because of the sugar program, compared to the low degree of price correlation in the wheat example described above. Second, and relatedly, compared with other commodities, like the wheat example, the prices are not very volatile. Third, the Midwest prices are lower than the Pacific (Idaho) prices, by about 1.3 cents per pound (or $26 per ton). Thus, in a 111 ton car, the cost of sugar from the Pacific origins would be almost $3,000 per car higher.

Figure 4.6 Sugar Prices at Midwest and Western Origins, 2000 to August 2026.



Source: Sosland weekly sugar price report, beet sugar from Midwest and West Coast origins; Prices are weekly beet sugar quotations in cents per pound.

Table 4.7 shows that the revenue per car for BNSF movements from the Midwest origins is {{ [redacted] }} than the revenue per car for movements on UP from the Pacific region. BNSF revenue per car is {{ [redacted] }} for cars that carry 111 tons. For UP, the revenue per car is {{ [redacted] }}. The difference is {{ [redacted] }} per car. Even though the Midwest origin is the least-cost source in {{ [redacted] }} of simulated weeks, in 2024 there were {{ [redacted] }} cars from Idaho on the UP.

[18] Pacific quotes are unavailable from November 2019 to August 2020, so the joint series begins on August 14, 2020.

Table 4.7 Factors That Determine Delivered Sugar Cost to Hershey, PA

(2024 waybill, $ per car) {{

[redacted]

}}

Optionality is valuable to the shipper here due to the significant cost differences between the origins, both as to the price of the commodity and the cost of transportation. If BNSF were foreclosed from access to the eastern receiver, the foreclosure cost would be {{ [redacted] }} per car. About {{ [redacted] }} of that is the freight difference, and about {{ [redacted] }} is the sugar price difference. In other words, losing access to the Midwest origin would {{ [redacted] }} the shipper's average delivered cost by {{ [redacted] }} per car.

Other disruptions would be harmful to the shippers. The Idaho origins would unlikely be able to supply the volume that would otherwise ship on BNSF from the Midwest. This could affect origin pricing (potentially increasing even more the price for West Coast sugar), which has otherwise been relatively stable. And if BNSF continued to source some sugar from the Midwest but shipping costs on the NS portion of the movement for BNSF origins increased (it would be in the UP-NS's interest to raise this portion of the rate), prices to sugar users would increase substantially because of the greater shipping costs; and/or prices to Midwest growers would have to decrease substantially because of anticipated higher shipping rates. The latter is unlikely given the pricing mechanisms for sugar and their relation to costs of production.

4.3 Summary and Implications of Case Studies

The wheat and sugar case studies were shown for illustration and are likely representative of many agricultural shippers. The results demonstrate that optionality has measurable economic value for agricultural shippers. In wheat, value arises from the ability to switch among competing origins as relative costs change over time; in sugar, value arises primarily from maintaining

access to a substantially lower-cost source of supply. Although the underlying economics differ, both examples demonstrate that transportation alternatives reduce costs and provide protection against adverse market conditions. The proposed merger threatens those alternatives by increasing the likelihood of foreclosure and reducing the effectiveness of competing rail routes. As a result, agricultural shippers and receivers would face higher costs, greater dependence on a single carrier, and reduced flexibility to respond to changing market conditions.

5. The Proposed Transaction Would Pose Service-Related Risks During Integration and Over the Long Term

Agricultural shippers are especially vulnerable to rail service disruptions. Grain production, harvest timing, processor demand, export programs, and transportation requirements change continually, making reliable rail service essential. Service disruptions impact individual shippers because late shipments result in penalties and otherwise increase costs, and the effects are propagated throughout the entire rail network. The proposed UP-NS merger raises concerns not only about competition and foreclosure, but also about whether integration-related disruptions could reduce service quality and increase risk for agricultural customers. These concerns are reinforced by both historical merger experience and more recent rail service failures.

Three issues are particularly important. First, major rail mergers have historically produced service disruptions that persisted well beyond initial integration periods. Second, agricultural supply chains are highly sensitive to delays because grain, feed, fertilizer, and processed agricultural products often move within tightly coordinated logistics systems. Third, disruptions on one carrier frequently spread throughout the broader rail network, affecting connecting railroads and shippers far from the original source of congestion.

5.1 Service Risks Are Especially Important for Agricultural Shippers

Agricultural shippers have always had concerns regarding service performance and the risks associated with underperformance. These concerns are exacerbated due to past experiences in rail mergers, in combination with the underlying risks confronting the agricultural marketing system (as summarized above). Indeed, USDA has been active in proceedings regarding previous mergers, as have numerous agricultural trade associations and grower organizations. Importantly, farmers, grain elevators, processors, livestock feeders, and exporters all bear costs when rail service deteriorates.

A principal concern in this proceeding is not how the merged railroad would perform during normal conditions, but how the system would function during periods of stress. Agricultural shippers need assurance that service failures, congestion, or integration problems would not leave them without effective alternatives. The practical value of competition is often greatest when service failures occur.

5.2 Lessons from Previous Rail Mergers

Previous mergers provide some indication of potential post-merger service problems. These were apparent in each of the UP-SP and CPKC mergers.[19] In both cases, the biggest problems were terminal congestion, increased dwell time, reduced train velocity, crew and locomotive imbalances, among others.

UP-SP Merger: Following the 1996 merger, severe congestion developed in the Houston/Gulf Coast region and spread throughout the western rail network. Congested terminals delayed trains and railcars, reduced equipment availability, and disrupted connecting railroads resulted in major delays, reduced train velocity, and railcar shortages. USDA also identified computer incompatibilities, restrictions on crew flexibility, locomotive shortages, and stronger-than-expected traffic—including a large winter-wheat crop—as contributing to the crisis.[20]

Recovery required more than a year and extensive intervention by regulators. During this period, there was severe network congestion and major delays. Grain movements declined substantially, grain accumulated in storage, and livestock producers struggled to obtain feed supplies. Specifically, the USDA indicated that during the period ending November 15, 1997: (1) grain shipments on western railroads declined 26%; (2) UP grain shipments decreased by 39%; (3) BNSF diverted capacity to other traffic; and (4) grain movements fell 17%.[21] This disruption caused an estimated 100 million bushels of the new crop harvest to be stored on the ground waiting for transportation, while livestock producers had difficulty getting fed. The STB ultimately issued emergency service orders and maintained extended oversight.

CPKC Merger: The Canadian Pacific–Kansas City Southern (CPKC) merger also illustrates the potential for service disruptions associated with railroad consolidation and their consequences for agricultural shippers. During the fall 2024 harvest, CPKC experienced significant grain-service deterioration, including average grain unit-train origin dwell of 50 hours on the former KCS network and 1,988 unfilled manifest grain-car orders on the former CP network, compared with 331 one year earlier (USDA-AMS, 2024b). Agricultural exports to Mexico were also disrupted in November 2024 when CPKC's Mexican subsidiary imposed a temporary embargo on dry bean shipments through Laredo because of congestion associated with Mexican inspection requirements (USDA-AMS, 2024b, 2025a). More directly attributable to merger implementation, the May 2025 integration of the former CP and KCS operating information systems resulted in missed switches, shipment delays, congestion, and deteriorating

[19] Other expert statements provide greater discussion of service disruptions related to previous mergers, in addition to analyzing the potential efficacy of UP's proposed plan to mitigate service disruption risk. This section only provides a summary and focuses the discussion on agricultural shippers, and to remind the STB of the importance of this issue to this sector.

[20] Norton (1997), p. 4, Feed Outlook.

[21] Taken from Canadian Pacific (2025); USDA AMS (2024b, 2025a, 2025b); Surface Transportation Board (2025); USDA (1997).

operating performance across portions of the former KCS network. By early July 2025, CPKC's U.S. grain unit trains averaged 41 hours of origin dwell and 14 miles per hour, while an average of 1,171 grain cars had not moved for more than 48 hours (USDA-AMS, 2025b). These problems prompted the Surface Transportation Board to require a corrective Service Action Plan under conditions imposed in its merger approval (STB, 2025a; CPKC, 2025).

These examples demonstrate a consistent lesson: integration challenges can persist longer than anticipated, and service disruptions frequently extend beyond the carriers directly involved. These examples also provide a hint that merged railroads do experience diseconomies of scale resulting from coordination costs, congestion, management complexity, etc. (discussed in Section 5.5). Agricultural shippers are often among the most affected because transportation interruptions immediately affect inventories, processing schedules, and product flows.

5.3 Effects of Service Failures on Agricultural Shippers

Agricultural supply chains depend on predictable transportation performance. Service interruptions can trigger additional costs such as contract penalties,[22] ocean ship demurrage,[23] additional storage costs, emergency trucking, and inventory shortages. Processors, livestock feeders, and exporters frequently operate with tight logistical requirements and limited ability to substitute other transportation modes.

The Foster Farms service dispute illustrates these risks. Service failures disrupted corn deliveries needed for feed production, leading to emergency transportation measures and STB intervention. Specifically, poor rail service stymied the flow of grain—reducing origin elevators' ability to buy grain from farmers and receivers' ability to have enough grain on-hand to feed their livestock and poultry.[24] This shortfall undermined the firm's ability to feed hundreds of thousands of cattle and millions of chickens.[25] Similar disruptions elsewhere in the agricultural sector can reduce grain movement, increase costs, and interfere with food and feed production.

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[22] In some cases, they may be a part of a supply agreement, i.e., a penalty is applied if a shipment is not received by a specified date. In addition, there is the impact of potentially losing a customer due to late shipments.

[23] Demurrage of ocean ships can cost approximately $25,000-$30,000/day at the US Gulf and $18,000-$25,000/day at the PNW for a Panamax vessel, though these rates can be higher in more congested ports. Delays in Asian wheat shipments have reduced shipment value by 0.5% for short delays and as much as 1.5% for longer delays (Bertelsen, 2018).

[24] See, for example, USDA's written testimony submitted in the Surface Transportation Board's docket on "urgent issues in freight rail service." (Bronaugh, 2022).

[25] USDA-AMS, *Grain Transportation Report*, January 19, 2023.

For this reason, service reliability is often as important to agricultural customers as transportation price. A railroad merger that increases the frequency or duration of service disruptions can impose high costs even if freight rates do not increase.

5.4 Rail Performance Illustrates Service Risk

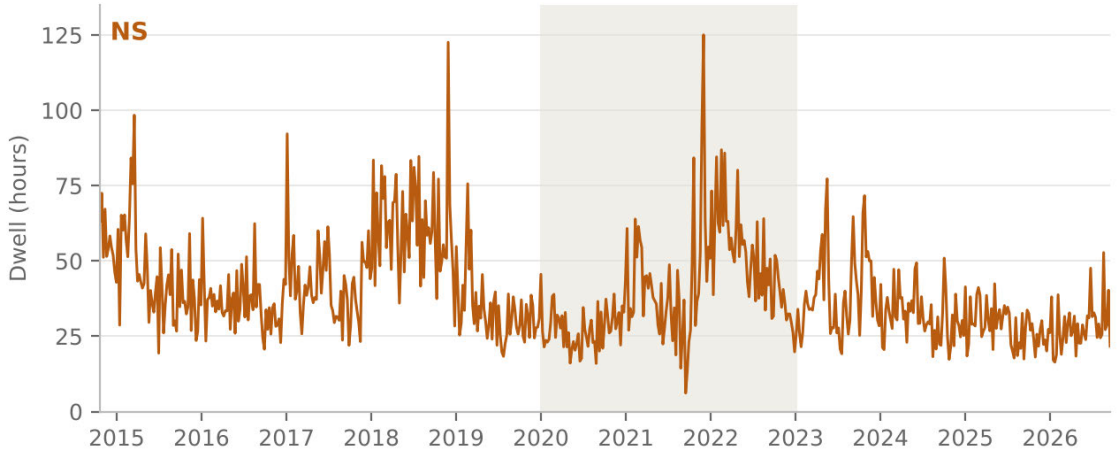
The service risk of a mega-merger to shippers of agricultural commodities is exacerbated due to the inherent variability of service, the impact of service problems on cost, and the network impact of service problems in particular areas.

Figures 5.1 to 5.6 show several important service metrics: Dwell time, train speed, and cars late for each of the UP and NS. As shown in the Figures, dwell time has substantial variability already, e.g., over this period, dwell time ranged from 10-54 hours on the UP and about 6 to 125 hours on the NS. Rail speed has a similarly wide range. NS ranged from about 11 mph to 24 mph, and for the UP ranged from 20 to 27+. Each of the performance functions is manifested in the case of grain as late car placement (Figure 5.5 and Figure 5.6).[26] As shown, there is substantial variability in this metric, resulting in huge risks for grain shippers in supply chain and shipment planning.

This variability is highly consequential. Grain shippers make sales based on expected (typically the mean) dwell and transit time in addition to car placement. If, for whatever reason, there are service interruptions, it forces the shipment to be late and disrupts the entire supply chain, ultimately raising costs as summarized above. Moreover, these figures illustrate the risks in transit time of an unmerged railroad. These are the result of numerous factors impacting shipping and show there is natural variability, causing risk to shippers. In a merged UP-NS, the concern is that this variability (or risk) will not be reduced, and if anything, based on previous mergers, it would increase.

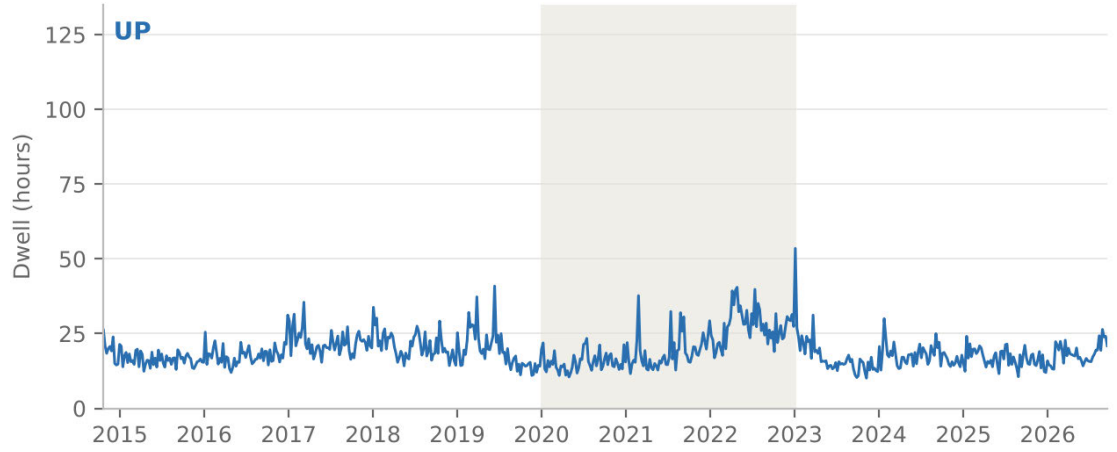
[26] The period from 2020-2023 is highlighted and was a period with crew shortages, reduced operating resources, network congestion, and severe weather. The problems varied over 2020–2024; service generally improved during 2023 before severe winter weather disrupted operations again in early 2024. (USDA AMS 2024a).

Figure 5.1 NS Dwell Time (hours)



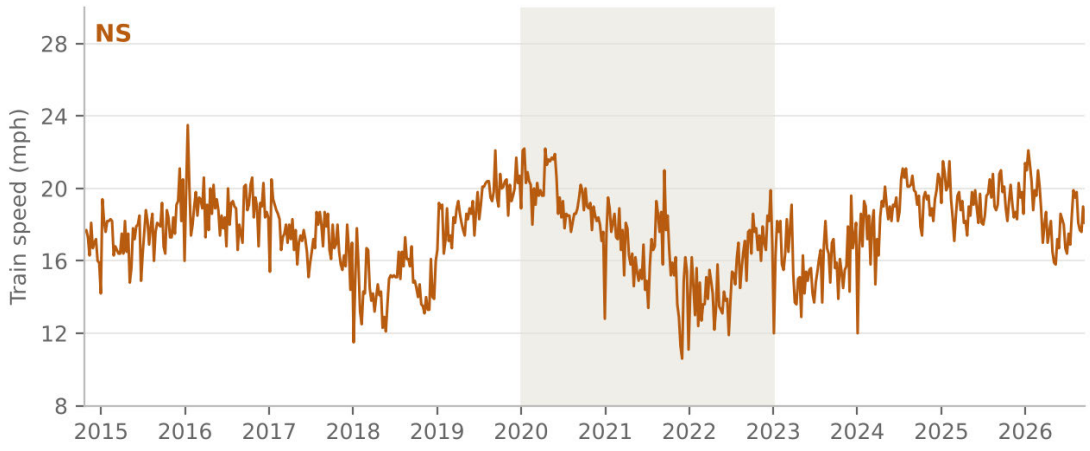
Source: STB EP 724 weekly railroad service metrics; grain unit train / grain car order data. Shaded: 2020–22.

Figure 5.2 UP Dwell Time (hours)



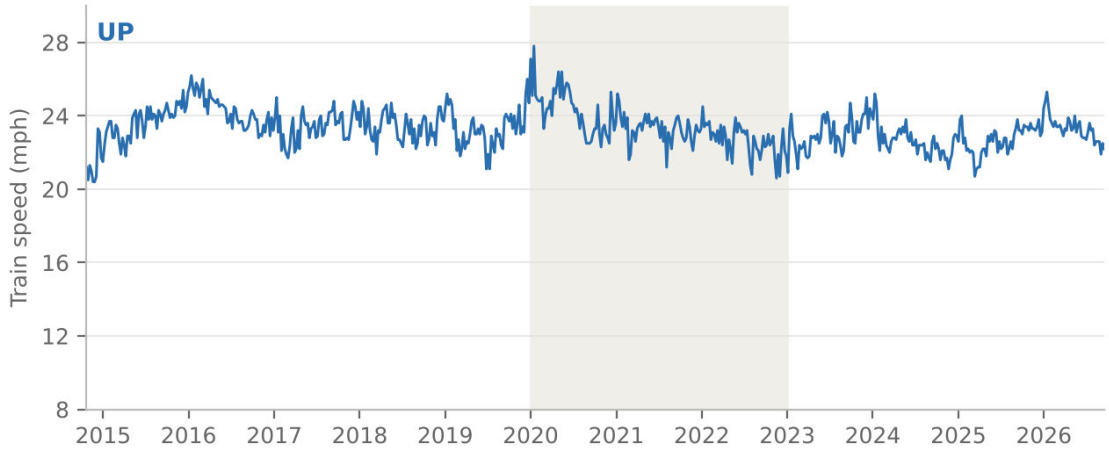
Source: STB EP 724 weekly railroad service metrics; grain unit train / grain car order data. Shaded: 2020–22.

Figure 5.3 NS Train Speed (mph)



Source: STB EP 724 weekly railroad service metrics; grain unit train / grain car order data. Shaded: 2020–22.

Figure 5.4 UP Train Speed (mph)



Source: STB EP 724 weekly railroad service metrics; grain unit train / grain car order data. Shaded: 2020–22.

Figure 5.5 UP Car Fulfillment—Unfilled orders (1-10 days past due)



Source: STB EP 724. Shaded: 2020–22. Weeks reported as zero (34%) omitted:
zeros alternate with ~2,000-car weeks in 2021–22, which looks like a reporting artifact.

Figure 5.6 UP Car Fulfillment—Unfilled orders (11+ days past due)



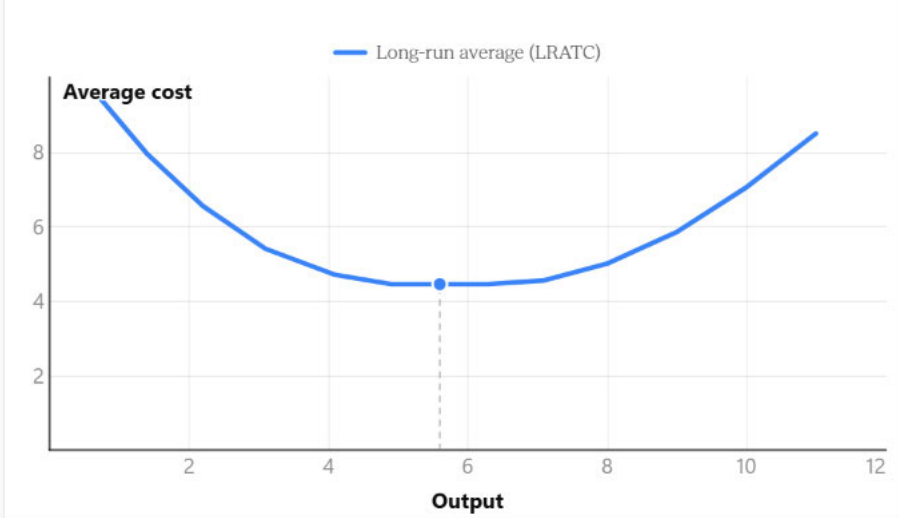
Source: STB EP 724 weekly railroad service metrics; grain unit train / grain car order data. Shaded: 2020–22.

The service risk of a merger is best viewed from the shipper's side of the market. A shipper with access to two independent carriers holds, in effect, a portfolio of two sources of service. If there are changes in service performance, the shipper can reallocate volume toward the carrier that is performing better. In fact, this provides a dramatic incentive for carriers to compete on improved service performance. If the merger leaves the shipper with a single carrier, that ability is gone, and the shipper bears the full effect of the variability of one carrier's performance.

5.5 Economies of scale and diseconomies of scale: Merger Effects

Rail mergers in the past have been justified by expected efficiencies, including improved network density, reduced interchange, better asset utilization, and administrative savings. However, industrial economics also recognizes the possibility of diseconomies of scale. As networks become larger and more interconnected, coordination costs, congestion risks, management complexity, and recovery costs from disruptions may increase. Figure 5.7 illustrates the concept of a diseconomy of scale in which, although costs decrease with increases in output, at some point, costs begin to increase.

Figure 5.7 Stylized Economies and Diseconomies of Scale in a Rail Network: Network complexity, congestion, coordination and disruption risk



The central question is whether the operational benefits claimed for the UP-NS merger will outweigh the added complexity of integrating two very large rail systems. Previous merger experience suggests that coordination difficulties and network disruptions can impose substantial costs, particularly during integration. Agricultural shippers bear a disproportionate share of these costs because of the time-sensitive nature of agricultural production and logistics.

5.6 Concerns for Agriculture Shippers and the Grain Marketing Industry

Agricultural shippers have legitimate concerns regarding merger-related service risk. Historical experience demonstrates that major rail mergers can create prolonged service disruptions requiring regulatory intervention. When service deteriorates, agricultural customers often experience delayed shipments, storage congestion, higher transportation costs, inventory shortages, and lost commercial opportunities.

The evidence also shows that rail service disruptions frequently propagate across the broader rail network and that rail-performance metrics have measurable commercial value. While the proponents of the UP-NS merger claim that the merger may generate certain operating

efficiencies, there is no question that it also creates risks associated with network integration, organizational complexity, congestion, and reduced flexibility to address service disruptions from weather or market changes. These risks are particularly important to agriculture because the industry depends heavily on transportation flexibility, reliable service, and uninterrupted product flows.

6. Canadian Transcontinental Railroads Are Not a Model for the United States

6.1 Background and Evolution

UP argues that a transcontinental railroad is necessary to compete with Canada's railroads and that a coast-to-coast U.S. carrier would produce similar benefits for shippers. [27] In my opinion, that comparison is incomplete. The Canadian experience cannot be evaluated solely by looking at the existence of transcontinental railroads. It must also be evaluated together with the extensive regulatory framework that Canada developed to constrain the market power of those railroads and protect shippers from abuse. The claim that a transcontinental rail merger should be approved because there two transcontinental railroads in Canada discounts the fact that the Canadian rail system has a companion regulatory regime designed to protect shippers from the market power wielded by those transcontinental railroads, which differs substantially from that in the United States.

Canada's freight rail system is dominated by two transcontinental carriers, Canadian National (CN) and Canadian Pacific Kansas City (CPKC). Because these railroads span large geographic areas and control access to substantial portions of the transportation network, Canadian policymakers have long recognized the risk that shippers could become dependent on a single carrier. As a result, Canada did not simply permit consolidation and rely on market forces to protect shippers. Instead, it developed a series of statutory mechanisms to protect shippers, and to provide remedies when market power arises. The existence of large transcontinental railroads in Canada and the existence of extensive shipper-protection regulations are not separate developments. They evolved together. Canadian policymakers viewed regulation as necessary precisely because transcontinental railroads possess substantial market power over captive shippers and receivers.

6.2 Key features of Canadian Rail Regulations

The basic philosophy of the Canadian rail regulatory regime is to ensure commercial rail pricing supplemented by statutory shipper remedies. Features of the Canadian regulatory regime

[27] UP and Norfolk Southern announcement: the July 29, 2025, UP–Norfolk Southern merger announcement).

designed to constrain the exercise of market power and preserve competitive transportation options include but are not limited to:[28]

1) Competitive line rates allowing a shipper to seek a regulated rate for a portion of its movement, if eligible.
2) Interswitching rights for eligible shippers to access another railway, supported by regulated switching rates and an equal-service obligation.
3) Formal dispute-resolution mechanisms, including final-offer arbitration and service remedies.
4) An additional layer of protection for grain shippers through the Maximum Revenue Entitlement (MRE),[29] which limits the aggregate revenue that railroads may earn on qualifying Western Canadian grain movements.

   If the railway revenue exceeds its cap, the railway pays the excess plus a penalty to the Western Grains Research Foundation, a farmer-funded organization

A central feature of the Canadian rail regulatory regime is interswitching, a shipper-protection mechanism that has existed in various forms since 1904 and was adopted nationally in 1918. Interswitching was developed to curb monopoly power and promote competition by giving captive shippers access to competing railroads. Under the regime, a railroad serving a shipper's facility can be required to transfer traffic to a competing railroad at a nearby interchange, allowing the shipper to obtain service from another carrier. Importantly, the Canadian Transportation Agency ("CTA") establishes regulated interswitching rates, generally on a per-car basis and using railway cost data, thereby preventing the serving carrier from using switching charges to undermine competitive access.

The geographic scope of interswitching has evolved over time, expanding from a four-mile interchange radius in the early twentieth century to 18 miles in 1987, 99 miles during a temporary expansion from 2014 to 2017, and currently 19 miles under ordinary rules, subject to CTA authority to extend eligibility in appropriate circumstances.[30] Finally, although

[28] These are in addition to 2 additional features important in agriculture: 1) growers have the right to order and load their own rail cars off-line, commonly referred as 'producer cars' (Canadian Grain Commission); and 2) a rail car allocation mechanism which is overseen by the Canadian Transport Agency.

[29] These mechanisms are described in detail in Canada Transport and Wilson (2020).

[30] For a reference supporting the current ordinary limit, see Canada Transportation Act, section 127(2)–(4)**.** For the most recent temporary expansion and its expiry, see Transport Canada, "Extended Interswitching," May 30, 2025.

interswitching is often discussed from the perspective of origin shippers, the statutory framework also permits receivers to seek comparable relief. [31]

The reason interswitching is important in this merger case is that it is one (of several) mechanisms that are used to provide a mechanism to protect shippers. In Canada, these have evolved over 100 years and have been refined and seem to serve their purpose.

I understand BNSF is proposing a switching remedy in the event the Board approves the merger. The proposed remedy would create a permanent open access switching right for shippers at qualifying UP/NS solely-served facilities within 20 miles of a working interchange with another Class I railroad, at a cost-based fee. The purpose of the proposal is to provide some protection for shippers and resembles Canadian interswitching in material ways and would address some of the harms stemming from foreclosure and reduced optionality that I have described above.

6.3 No Comparable US Regulatory Framework to Mitigate Competitive Harm

Canadian regulations for rail shipping have no close U.S. equivalent. The U.S. framework relies more heavily on commercial railroad competition and STB remedies, while Canada's framework deliberately supplements commercial pricing with regulated competitive access—and, for qualifying Western grain, an additional aggregate revenue constraint.

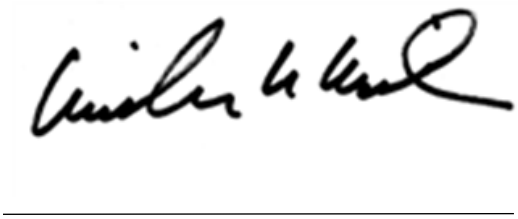
The Canadian experience demonstrates that transcontinental railroads can become so powerful that governments find it necessary to create extensive regulatory protections for shippers. Absent comparable safeguards, the risks of foreclosure, reduced optionality, and increased market power discussed throughout this report would remain significant concerns for US agricultural shippers and receivers. Because grain production is concentrated in regions that often depend on a limited number of transportation corridors, grain shippers are especially vulnerable to these risks.

[31] A receiver can also seek an interswitching order from the CTA as an interested person; section 127 expressly covers both origins and destinations. Canada Transportation Act, section 127.

VERIFICATION

I, William Wilson, 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 17 day of November, 2026.



William Wilson

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Appendix: Dr. Wilson Vitae Summary (Sept 2025)

Dr. William W. Wilson received his PhD in Agricultural Economics from the University of Manitoba in 1980. Since then, he has been a Professor at North Dakota State University in Agribusiness and Applied Economics with periodic sabbaticals at Stanford University. Recently, he was named as a *University Distinguished Professor* at NDSU which an honorary position is, and a great achievement. And, in 2016 he was named the *CHS Chair in Risk Management and Trading* at NDSU which is an endowed position. In 2017 he was awarded the *AAEA 2016 Distinguished Teaching Award (Chicago July 2017)*

His focus is risk and strategy as applied to agriculture and agribusiness with a particular focus on procurement, transportation and logistics, international marketing and competition. He teaches classes in Commodity Trading, Risk and AgriBusiness Strategy and has taught his Risk Class at Purdue University; and is a visiting scholar at Melbourne University where he visits 2 times/year and advises PhD students in risk and agbiotechnology. Finally, he has now created the NDSU Commodity Trading Room which is a state of art facility for teaching and research in commodity marketing, logistics and trading.

He routinely has projects and/or overseas clients and travels internationally 1 week per month. He led a project for the United States on privatization of the grain marketing system in Russia in the early 1990's. He currently has projects and/or clients in US, Russia, Ukraine, Mexico, Argentina and Australia. He regularly advises a number of large Agribusiness firms, the Panama Canal, the US Army Corp of Engineers, several major railroads, and several major food and beverage companies and/or governments in other countries. He served as a Board member of the Minneapolis Grain Exchange for 12 years, on the FGIS Advisory Board, and currently serves as a Board member of several regional firms in agtechnology and venture capital (701X, AMITY), in addition to NCH Capital (New York City which is one of the largest investors in world agriculture) and is now Board Chairman.

He regularly consults with major agribusiness firms on topics related to above and works extensively in the following industries: agtechnology, logistics, procurement strategy, railroads, barges, ocean shipping, elevators (shuttle development), and processed products (malting and beer, durum and pasta, wheat and bread).

He was recognized as one of the top 10 Agricultural Economists in 1995 and more recently as *one of the top 1% of agricultural economists by RePEc (Research Papers in Economics).* Finally, he has students who are in senior positions in a number of large agribusinesses including commodity companies, railroads and food and beverage companies.

Board of Director/Advisor:

- 701X, DIGITAL BEEF MANAGEMENT
- AMITY, APPOINTED DEC 2017-CURRENT, FARGO (FARM MACHINEARY AND PRECEISINO AG SOFTWARE)
- MYRIAD MOBIL 2017-CURRENT (BUSHEL), MOBILE DEVELOPERS, DESIGNERS, ARCHITECTS, STRATEGISTS, AND INDUSTRY THOUGHT LEADERS DEDICATED TO ANDROID, IOS, AND MOBILE WEB SOFTWARE SOLUTIONS.
- NCH Capital (one of the largest private equity funds invested in Russia/Ukraine agriculture), Board of Directors, Chairman. Appointed 2015-current.

PAST BOARD MEMBERS:

- Board Member, Colvin & Co. LLP New York, NY AMERICAN FARM SHARES, DECEMBER 2014.
- Advisor, to Linn Grove Growth Funds, a fund for investing in agricultural technology, 2012-currenmt.
- Wheat Advisory Committee, Monsanto 2010-current
- Wheat Industry Biotechnology Council, 2008-current
- WCCO Belting, Wahpeton, ND 2005 to 2012
- Board Member, Minneapolis Grain Exchange, 1991-2003.

Consulting/Vitae:

Recent: Nippn, 2025-current; Bunge, 2024-2025 (Viterra acq); AgroTerra (FSU Farm corp) 2009-current (risk and strategy); Miller Milling/Nisshen Flour Company, 1989-2017; Tablex Mexico, 1996-current; Bunge, 2014-2016, 2024; Monsanto, 2001-2004, 2007; 2015-2017; Panama Canal Authority, 2003, current; North Dakota Mill and Elevator 2009-current.

Past: Burlington Northern Railroad, 1988-91; 1999-2000; 2005-2007;2010-2015; Barilla Pasta, Parma 2005, 2009, 2012; Michael Foods, 2006 General Mills, 2005-2006; Molsa (El Salvador), 2005; Army Corps of Engineers/IWR, 2005-2007; 2009-2011. Busch Agricultural Resources (Anheuser-Busch), 1994/95, 2000-2008; Rich Products Company, August-December 2000; Canadian Pacific Railway, 1998; James Richardson International (Canada) 1996; Polar CV (Venezuela), 1982-2002, 2007-2010; Industry Canada, 1996; Canada Malting International, 1995/96; Farmland Industries, 1995; Alberta Wheat Pool, 1995; Canadian National Railway, 1993, 1994, 1996, 1998, 2000; International Multifoods, 1991; Agribusiness Associates, Inc., 1988; Central Bank for Cooperatives, 1986; Genesee Brewing Co., 1985; U.S. Wheat Associates, 1985.

Vitae Summary: Dr. William W. Wilson		
Item	Number	
Grants (to 2019)	**125**	**$51 million**
Journal Articles (refereed)	175	
Books	2	
Book Chapters –not updated	21	
Miscellaneous Publications–not updated	303	
Presentations: International Professional Associations	179	Not updated
National Professional Associations	219	
Regional Professional Associations	124	
Industry and Commodity Firms	178	
Outreach/Service	37	
Northern Crops Institute Training Programs	111	
Other Presentations	18	

- Includes that Dr. Wilson raised $13 + $6 million for the Commodity Trading Room (a research and teaching laboratory) in 2015.