

BEFORE THE
SURFACE TRANSPORTATION BOARD

Finance Docket No. 22218

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ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY
—OPERATING RIGHTS—
SOUTHERN PACIFIC TRANSPORTATION CO.

**UNION PACIFIC RAILROAD COMPANY'S
SUBMISSION OF ADDITIONAL INFORMATION**

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EXHIBIT A – Supplemental Verified Statement of Dr. Divya Mathur

GLOSSARY OF REFERENCES TO PRIOR SUBMISSIONS

Baranowski/Zebrowski VS	Verified Statement of Michael R. Baranowski and Nathan S. Zebrowski (May 3, 2024)
BNSF Final Brief	BNSF Railway Company's Final Brief (Apr. 15, 2025)
BNSF Op.	BNSF Railway Company's Opening Statement and Evidence (May 3, 2024)
BNSF Reply	BNSF Railway Company's Reply Statement and Evidence (Mar. 14, 2025)
Hughes RVS	Reply Verified Statement of David W. Hughes (Mar. 14, 2025)
Mathur RVS	Reply Verified Statement of Dr. Divya Mathur (Mar. 14, 2025)
Mathur VS	Verified Statement of Dr. Divya Mathur (May 3, 2024)
UP Final Brief	Union Pacific Railroad Company's Final Brief (Apr. 15, 2025)
UP Reply	Union Pacific Railroad Company's Reply Statement and Evidence (Mar. 14, 2025)

In Union Pacific's Submission of Additional Information, Highly Confidential information is enclosed in double braces, and Confidential Information is enclosed in single braces. Highly Confidential and Confidential information is redacted from the public version of documents filed at the Board.

**UNION PACIFIC RAILROAD COMPANY'S
SUBMISSION OF ADDITIONAL INFORMATION**

I. Introduction and summary

In accordance with the Surface Transportation Board's Order served March 4, 2026, Union Pacific Railroad Company (Union Pacific) is hereby submitting additional information the Board requested regarding its petition to revise the prescribed interest rental BNSF Railway Company (BNSF) pays for trackage rights over Union Pacific's 67.8-mile line between Kern Junction and Mojave, California (the Tehachapis Line or Line). This submission is supported by the Supplemental Verified Statement of Dr. Divya Mathur of Analysis Group, Inc., which is attached as Exhibit A.

In this proceeding, Union Pacific calculated the interest rental BNSF should pay by faithfully applying *SSW Compensation's* capitalized earnings (CE) method, which is designed to place the tenant and the owner on an identical competitive footing. By contrast, BNSF's calculations incorporate ad hoc departures from CE: by selectively excluding categories of line earnings and asserting other positions inconsistent with CE principles, BNSF seeks to understate the Line's value by understating the revenues attributable to the Line, overstating the costs assigned to the Line, and reducing the appropriate rate of return on investment in the Line, and thereby require Union Pacific to subsidize BNSF's operations on the Line.

Union Pacific initiated this proceeding in January 2023. To initiate the proceeding, Union Pacific had to restore the interest rental payment to the level the Interstate Commerce Commission prescribed in *Atchison, Topeka & Santa Fe Railway—Operating Agreement—Southern Pacific Co.*, 331 I.C.C. 367 (1967), *modified*, 333 I.C.C. 342 (1968)—a level the ICC later found was

“clearly inequitable” to Union Pacific.¹ Until this matter is resolved, Union Pacific may charge no more than this “clearly inequitable” level and thus continues to subsidize BNSF’s operations.

Union Pacific is providing all the additional information requested by the Board. However, as discussed below, two of the scenarios for which the Board asks the parties to calculate line segment revenues—i.e., excluding Union Pacific and BNSF earnings for double-stack traffic, and reducing BNSF’s non-double-stacked traffic earnings by one-half—represent significant deviations from *SSW Compensation*’s CE method. The parties agree that application of *SSW Compensation*’s CE method is appropriate to resolve this matter, and the ICC has held that interest rental payments calculated under the CE method “assur[e] a competitive relationship” between the landlord and tenant railroads.² Calculating interest rental payments using a method that fails to account for all earnings attributable to the Line would require Union Pacific to continue subsidizing BNSF’s operations over the Tehachapis Line.

Union Pacific and its representatives will be available to discuss the calculations and conclusions in this submission and its other submissions at the technical conference scheduled for June 3, 2026.

II. Union Pacific’s additional revenue calculations in response to the Board’s Order.

Figure 1 below shows the revenue calculations required by Supplemental Data Request No. 1 in the Board’s Order. These calculations are described in more detail in the Supplemental Verified Statement of Dr. Divya Mathur.

¹ *Atchison, Topeka & Santa Fe Ry. Co.—Operating Agreement—S. Pac. Transp. Co.*, 8 I.C.C.2d 297, 303 (1992).

² *St. Louis Southwestern Ry. Co.—Trackage Rights Over Missouri Pac. R.R. Co.—Kansas City to St. Louis (SSW II)*, 4 I.C.C.2d 668, 682, 688 (1987).

Figure 1. Revenues Attributable to the Line (in USD Millions)³

<u>Year</u>	<u>[A] All Traffic</u>	<u>[B] Excluding Double-Stack</u>	<u>[C] Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED]	[REDACTED]	[REDACTED]
2022	[REDACTED]	[REDACTED]	}}

As discussed more extensively in Union Pacific’s Reply and Final Brief, the results shown in columns “B” and “C,” which reflect arguments advanced by BNSF, are fundamentally inconsistent with *SSW Compensation*’s CE method and would require Union Pacific to subsidize BNSF’s operations over the Tehachapis Line.

Exclusion of Earnings from Double-Stack Traffic. As discussed in Union Pacific’s Reply and Final Brief, excluding double-stack traffic is fundamentally inconsistent with CE.⁴ Under the CE method, a line’s fair market value is determined based on the earnings attributable to the line.⁵ Excluding earnings from double-stack traffic moving over the Line significantly understates the Tehachapis Line’s fair market value, violating the *SSW Compensation* principle that “valuation should be based on fair market value.”⁶ Understating the Line’s fair market value in calculating interest rental payments would mean that BNSF, as the renting carrier, is “subsidized by the owning road,” Union Pacific, which is expressly contrary to *SSW Compensation*’s objective.⁷

³ Supplemental Verified Statement of Dr. Divya Mathur (“Mathur SVS”), Figure 1.

⁴ See UP Reply at 18–19; Mathur RVS at 23–27; UP Final Brief at 8–10.

⁵ See *SSW II*, 4 I.C.C.2d at 684; see also Baranowski/Zebrowski VS at 9–10 (“Under this CE approach, the value of the trackage rights line segment to the landlord is based on the earnings attributable to the line for shipments that use the line.”); BNSF Final Brief at 13 (“The CE method values a railroad line segment by multiplying the specific earnings assigned to the line segment by an earnings multiplier.”); BNSF Op. at 13–14 (“The CE method values the line at issue by multiplying the specific earnings assigned to the line at issue by an earnings multiplier.”).

⁶ *SSW II*, 4 I.C.C.2d at 674.

⁷ *Id.* at 682.

As also discussed in Union Pacific’s Reply and Final Brief, BNSF’s factual arguments for excluding double-stack earnings are flawed.⁸ BNSF claimed that excluding double-stack earnings in developing the interest rental base is appropriate because “ATSF alone paid for the \$6.3 million in tunnel improvements”⁹ and “[w]ithout [ATSF’s] investment, the double-stack intermodal trains that move routinely over the Line would not have been possible, and thus no earnings associated with those double-stack trains would have accrued.”¹⁰ First, Union Pacific compensated BNSF for SP’s share of the costs of the tunnel improvements when it acquired SP—that is why Union Pacific has equal rights to use the tunnel improvements. Second, Union Pacific would have made the tunnel improvements after acquiring SP, even if it had to pay their full cost. As Mr. Hughes explains, Union Pacific had begun improving tunnel clearances on its intermodal routes in the late 1980s before acquiring SP.¹¹ Further, following Union Pacific’s merger with SP, Union Pacific spent approximately {{ [REDACTED] }} to increase clearances in tunnels and on bridges on other portions of its I-5 Corridor and approximately {{ [REDACTED] }} to increase tunnel clearances on the former-SP Central Corridor.¹² For anyone but the financially struggling SP, \$6.3 million would have been a small price to pay to take full advantage of double-stack efficiencies on the Tehachapis Line.¹³

⁸ See UP Reply at 26–27; Mathur RVS at 27–31; UP Final Brief at 8–10.

⁹ BNSF Op. at 15.

¹⁰ Baranowski/Zebrowski VS at 12–13.

¹¹ See Hughes RVS at 10.

¹² See *id.* at 11.

¹³ In addition, even if the tunnel improvements had been physically impossible, at least some traffic currently moving in double-stack configuration would still be moving over the Tehachapis Line. As Mr. Hughes explained, the tunnel improvements were needed to accommodate cars with two layers of domestic intermodal containers. Domestic intermodal traffic could move through the original tunnels in a single-layer or in a stacked configuration where one layer was a shorter international container. See *id.* at 9–10. Along with its many other flaws, BNSF’s exclusion of (continued...)

As further discussed in Union Pacific's Reply and Final Brief, BNSF's economic and legal arguments for excluding double-stack earnings are flawed.¹⁴ BNSF's own witnesses acknowledged that using *SSW Compensation's* CE method, rather than the RCNLD method, eliminates the need to decide how much each railroad may have contributed over time to the value of the Line when establishing the interest rental payment:

CE moves away from the question of how to develop a valuation based on asset inventory that fully accounts for BNSF/ATSF's capital contributions and focuses instead on the relevant earnings over the joint users generated by the Line as it has developed over time.¹⁵

Additionally, using CE rather than RCNLD to establish BNSF's interest rental payment is consistent with SP's and ATSF's agreement not to increase the Line's interest rental base by the cost of tunnel improvements. As BNSF's witnesses acknowledged, CE does not involve adjusting the interest rental base to reflect the costs of improvements.

Finally, as discussed in Union Pacific's Reply and Final Brief, BNSF's proposal to effectively attribute all double-stack earnings to the tunnel improvements would deprive Union Pacific of an appropriate return on its vastly greater amount of investment in all the other infrastructure BNSF and Union Pacific use to move double-stack traffic over the Line.¹⁶ BNSF's proposal to exclude all earnings from double-stack traffic from the interest rental base would also

double-stack earnings is unprincipled because it fails to account for such traffic. Union Pacific notes this as an unresolved issue in Part VI in response to the Board's final request (Supplemental Data Request No. 5).

¹⁴ See UP Reply at 19–24; UP Final Brief at 8–10.

¹⁵ Baranowski/Zebrowski RVS at 2.

¹⁶ See UP Reply at 26–27; Mathur RVS at 27–31; UP Final Brief at 10.

reduce the value of the Line's interest rental base by an amount far exceeding the value of ATSF's contribution to the tunnel improvements.¹⁷

Exclusion of Half of BNSF's Non-Double-Stack Earnings. As discussed in UP's Reply and Final Brief, excluding 50% of line earnings from BNSF's non-double-stack traffic is also fundamentally inconsistent with *SSW Compensation's* CE method.¹⁸ Excluding BNSF non-double-stack earnings conflicts with the CE method and violates *SSW Compensation* principles for the same reason as its exclusion of double-stack earnings: the CE method uses line-specific earnings, not some reduced portion of those earnings, to develop a line's fair market value,¹⁹ and *SSW Compensation* principles require basing interest rental payments on a line's "fair market value."²⁰ No adjustment to earnings is required to produce an equitable result. On the contrary, doing so would subsidize BNSF and be inequitable to Union Pacific.

BNSF claimed the earnings exclusion addresses "circularity."²¹ But BNSF's opening evidence confirmed that both parties constructed their CE valuations to avoid creating a circularity issue. As BNSF explained, in the context of the CE method, "[t]he circularity issue would only arise . . . if we used the . . . current BNSF interest rental payment to determine the new interest rental amount that BNSF should pay UP."²² Yet both parties use BNSF's line-specific earnings, not BNSF's current interest rental payment, in their CE valuations of the Line.²³

¹⁷ See UP Reply at 24; Mathur RVS at 31–32; UP Final Brief at 9–10.

¹⁸ See UP Reply at 27–28; Mathur RVS at 33–38; UP Final Brief at 11–12.

¹⁹ See *SSW II*, 4 I.C.C.2d at 684.

²⁰ *Id.* at 674.

²¹ See BNSF Op. at 15.

²² Baranowski/Zebrowski VS at 11.

²³ See Mathur RVS at 33–34.

BNSF also claimed the earnings exclusion produces a result that is “equitable.” But Board precedent recognizes that a straightforward application of CE produces “a reasonable and *equitable* basis of compensation.”²⁴

Finally, BNSF claimed on reply that the exclusion recognizes a portion of its earnings are properly allocated to its non-roadway assets. However, BNSF’s argument is inconsistent with CE. CE values a line based on earnings and does not require attributing earnings to roadway assets, non-roadway assets, or other factors. Excluding 50% of BNSF’s line earnings from CE means BNSF would not pay rent based on the Line’s fair market value, placing Union Pacific in a position where it would be subsidizing BNSF’s use of the Line.²⁵

III. Union Pacific’s additional operating expense calculations in response to the Board’s Order.

Figure 2 and **Figure 3** below show the calculations of line-segment operating expenses required by Supplemental Data Request No. 2 in the Board’s Order. These calculations are described in more detail in the Supplemental Verified Statement of Dr. Divya Mathur. **Figure 2** reflects the approach used in Union Pacific’s case in chief; **Figure 3** reflects the approach used in BNSF’s case in chief.

²⁴ *St. Louis Southwestern Ry.—Trackage Rights Over Missouri Pac. R.R.—Kansas City to St. Louis (SSW IV)*, 8 I.C.C.2d 80, 95 (1991) (emphasis added).

²⁵ The Board’s Order incorrectly connects Union Pacific’s arguments against excluding BNSF’s non-double-stack line earnings to arguments regarding BNSF’s tunnel investments costs. *See* Order at 3. Union Pacific argued that excluding Union Pacific’s and BNSF double-stack line earnings would reduce the value of the Line’s interest rental base by an amount far exceeding the value of ATSF’s contribution to the tunnel improvements, and that the only adjustment to the interest rental base that could possibly be justified would be to subtract half of BNSF’s tunnel investment costs from the interest rental base. *See* UP Reply at 23; Mathur RVS at 31–32.

Figure 2. Operating Expenses Attributable to the Line Calculated Based on the Methodology in Union Pacific’s Case in Chief (in USD Millions)²⁶

<u>Year</u>	<u>[A] All Traffic</u>	<u>[B] Excluding Double-Stack</u>	<u>[C] Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED] }}	[REDACTED]	[REDACTED]
2022	[REDACTED]	[REDACTED]	[REDACTED] }}

Figure 3. Operating Expenses Attributable to the Line Calculated Based on the Methodology in BNSF’s Case in Chief (in USD Millions)²⁷

<u>Year</u>	<u>[A] All Traffic</u>	<u>[B] Excluding Double-Stack</u>	<u>[C] Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED] }}	[REDACTED]	[REDACTED]
2022	[REDACTED]	[REDACTED]	[REDACTED] }}

As discussed in Union Pacific’s Final Brief and Dr. Mathur’s accompanying supplemental statement, the differences between the results in the two figures reflect differences in the parties’ approaches to excluding return on investment (ROI) costs when calculating the operating expenses attributable to the Tehachapis Line.

BNSF’s approach assigns higher operating costs to the Line, which ultimately produces lower line earnings and thus a lower interest rental. BNSF assigns higher operating costs to the Line by excluding ROI costs using an approach that implicitly assumes system-wide cost relationships are representative of the Line, despite the Line’s relatively higher density and correspondingly lower fixed costs. BNSF’s approach to operating expenses is inconsistent with its approach to revenues: BNSF correctly accounts for the Line’s relatively higher density and thus allocates relatively lower revenues to the Line.²⁸ BNSF’s methodological inconsistency in

²⁶ Mathur SVS, Figure 3.

²⁷ Mathur SVS, Figure 4.

²⁸ See UP Final Brief at 23–24.

accounting for the Line's density is explained by its consistent legal strategy: apply whatever method produces the lowest revenues and the highest costs, so as to reduce the interest rental.

By contrast, Union Pacific excluded ROI costs using an approach that reflects the Line's relatively higher density and lower fixed costs, which correctly assigns lower operating expenses to the Line.

IV. Union Pacific's additional earnings calculations in response to the Board's Order.

Figure 4, Figure 5, Figure 6, and Figure 7 below show the calculations of line-segment earnings "with and without negative earnings" as required by Supplemental Data Request No. 3 in the Board's Order. These calculations are described in more detail in the Supplemental Verified Statement of Dr. Divya Mathur. As Dr. Mathur explains, because line-segment earnings are calculated as revenues less operating expenses and the Board directed that operating expenses be calculated using two different methodologies, four sets of earnings calculations are required to respond to Supplemental Data Request No. 3.

Figure 4 below shows earnings attributable to the Line including negative earnings for the three revenue scenarios with operating expense calculated using Union Pacific's methodology (i.e., **Figure 2** above). **Figure 5** shows earnings attributable to the Line excluding negative earnings for the same scenarios.

Figure 4. Earnings Attributable to the Line Including Negative Earnings and Operating Expense Calculated Based on the Methodology in Union Pacific's Case in Chief (in USD Millions)²⁹

<u>Year</u>	<u>All Traffic</u>	<u>Excluding Double-Stack</u>	<u>Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{		
2022			}}

²⁹ Mathur SVS, Figure 5.

Figure 5. Earnings Attributable to the Line Excluding Negative Earnings and Operating Expense Calculated Based on the Methodology in Union Pacific's Case in Chief (in USD Millions)³⁰

<u>Year</u>	<u>All Traffic</u>	<u>Excluding Double-Stack</u>	<u>Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED] }}	[REDACTED]	[REDACTED]
2022	[REDACTED]	[REDACTED]	[REDACTED] }}

Figure 6 below shows earnings attributable to the Line including negative earnings for the three revenue scenarios with operating expense calculated using BNSF's methodology (i.e., Figure 3 above). Figure 7 shows earnings attributable to the Line excluding negative earnings for the same scenarios.

Figure 6. Earnings Attributable to the Line Including Negative Earnings and Operating Expense Calculated Based on the Methodology in BNSF's Case in Chief (in USD Millions)³¹

<u>Year</u>	<u>All Traffic</u>	<u>Excluding Double-Stack</u>	<u>Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED] }}	[REDACTED]	[REDACTED]
2022	[REDACTED]	[REDACTED]	[REDACTED] }}

Figure 7. Earnings Attributable to the Line Excluding Negative Earnings and Operating Expense Calculated Based on the Methodology in BNSF's Case in Chief (in USD Millions)³²

<u>Year</u>	<u>All Traffic</u>	<u>Excluding Double-Stack</u>	<u>Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED] }}	[REDACTED]	[REDACTED]
2022	[REDACTED]	[REDACTED]	[REDACTED] }}

³⁰ Mathur SVS, Figure 6.

³¹ Mathur SVS, Figure 7.

³² Mathur SVS, Figure 8.

V. Union Pacific’s additional years of data for the earnings multiplier, inflation index, and usage factor in response to the Board’s Order.

Figure 8 below provides enterprise value-based earnings multipliers, inflation indices, and usage factors for the years 2019 and 2020, as required by Supplemental Data Request No. 4, as well as figures for 2021 and 2022 for completeness. **Figure 8** also includes the inflation adjustment needed to convert 2019–2022 dollars into 2023 dollars. These calculations are described in more detail in the Supplemental Verified Statement of Dr. Divya Mathur.

Figure 8. Earnings Multipliers, Inflation Indices, and Usage Factor³³

<u>Year</u>	<u>Earnings Multiplier</u>	<u>Inflation Index</u>	<u>2023 Inflation Adjustment</u>	<u>Usage Factor</u>
2019	{{			
2020				
2021				
2022				}}

As discussed in Union Pacific’s Reply and Final Brief, a market-based earnings multiplier incorporates the market’s expectations of future earnings growth. Using a market-based multiplier to convert the Tehachapis Line’s earnings into the Line’s fair market value is thus more consistent with *SSW Compensation*’s CE objective of “relat[ing] corporate earnings to corporate value”³⁴ than using a multiplier based on the inverse cost of capital, which assumes no earnings growth.³⁵ Further, Union Pacific’s Final Brief explains that BNSF was wrong when it claimed that Union

³³ Mathur SVS, Figure 9.

³⁴ *St. Louis Southwestern Ry. Co.—Trackage Rights Over Missouri Pac. R.R. Co.—Kansas City to St. Louis (SSW I)*, 1 I.C.C.2d 776, 787 (1984).

³⁵ See UP Reply at 32–33; Mathur VS at 26–28, 58–60; UP Final Brief at 13.

Pacific's market-based earnings multiplier would triple count inflation because inflation has no impact on the earnings multiple developed by Dr. Mathur.³⁶

As also discussed in Union Pacific's Final Brief, *SSW Compensation* expressly holds that the tenant's share of interest rental should be based on the tenant's "percentage usage," which "places the parties on [an] identical and competitive footing and ensures continued joint provision of service an adequate investment."³⁷

VI. Outstanding issues requiring resolution.

As required by Supplemental Data Request No. 5, the list below identifies all outstanding issues that Union Pacific believes must be resolved. Union Pacific will be prepared to discuss these at the scheduled technical conference.

1. **Rate of Return:** BNSF contends that the rate of return on the value of the Tehachapis Line should be based on the 30-year Treasury rate, while Union Pacific contends that the rate of return should be based on the industry-wide railroad pre-tax cost of capital, as established by *SSW Compensation*.³⁸
2. **Usage Factor:** As discussed in connection with Request No. 4, BNSF contends that BNSF's usage factor should be one-half, while Union Pacific contends that BNSF's share should be based on its percentage usage, as established by *SSW Compensation*.³⁹

³⁶ See UP Final Brief at 19. Union Pacific's final brief also explains why Dr. Mathur's other calculations do not double-count inflation and why Dr. Mathur correctly accounted for inflation using an AAR railroad price index. See *id.* at 19–21.

³⁷ See UP Final Brief at 3, 8 (quoting *St. Louis Southwestern Ry.—Trackage Rights Over Missouri Pac. R.R.—Kansas City to St. Louis (SSW III)*, 5 I.C.C.2d 525, 530 (1989)).

³⁸ UP Reply at 10–15; Mathur RVS at 13–20; UP Final Brief at 3–8.

³⁹ UP Reply at 15–16; Mathur RVS at 20–22; UP Final Brief at 3–8.

3. ***Exclusion of Double-Stack Earnings:*** As discussed in connection with Request No. 1, BNSF contends that line earnings from double-stack traffic should be excluded in calculating line-specific earnings, while Union Pacific contends that all earnings should be included, as established by *SSW Compensation*.⁴⁰
4. ***Double-Stack Traffic in the But-For World:*** If the Board were to accept BNSF's argument for potentially excluding certain earnings from double-stack traffic, the Board would have to address disputes about whether Union Pacific would have removed tunnel clearance limitations on the Line, whether Union Pacific compensated BNSF for its share of the costs of removing the clearance limitations, and whether some traffic currently moving in double-stack configuration would be moving over the Line even without any investment by BNSF.⁴¹
5. ***Exclusion of Non-Double-Stack Earnings:*** As discussed in connection with Request No. 1, BNSF contends that one-half of BNSF's non-double-stack line earnings should be excluded in calculating line-specific earnings, while Union Pacific contends that all earnings should be included, as established by *SSW Compensation*.⁴²
6. ***Earnings Multiplier:*** As discussed above in connection with Request No. 4, BNSF contends that the Board should calculate the Tehachapis Line's fair market value using a multiplier based on the inverse cost of capital, which assumes no earnings growth, while Union Pacific contends that the Board should use a market-based multiplier, which incorporates the market's expectations for future earnings growth, in order to "relate[] corporate earnings to corporate value," as required by *SSW Compensation*.⁴³

⁴⁰ UP Reply at 18–27; Mathur RVS at 23–27; UP Final Brief at 8–10.

⁴¹ UP Reply at 26–27; Hughes RVS at 10–11.

⁴² UP Reply at 27–30; Mathur RVS at 33–38; UP Final Brief at 11–12.

⁴³ UP Reply at 32–33; Mathur RVS at 49–52; UP Final Brief at 13–18.

7. ***Inflation Adjustment:*** As discussed above in connection with Request No. 4, BNSF contends that the Consumer Price Index should be used to adjust interest rental payment for inflation, while Union Pacific contends the Board should use the railroad-specific Annual Index of Chargeout Prices and Wage Rates – “Material prices, wage rates and supplements combined (excl. fuel)” published by the AAR.⁴⁴
8. ***Time Period for Calculations:*** BNSF contends that data from 2019 through 2022 should be used to calculate line earnings, while Union Pacific uses data from 2021 and 2022, which better captures current economic conditions on the Line by focusing on the most recent years of data available and avoiding idiosyncrasies caused by the COVID-19 pandemic in 2020 that are not representative of the valuation of the Line going forward.⁴⁵
9. ***Operating Expenses:*** As discussed above in connection with Request No. 2, BNSF and Union Pacific disagree over the method that should be used to remove the effects of ROI when calculating operating costs for the Tehachapis Line. BNSF’s method ignores the higher-density nature of the Line when calculating line-specific costs but accounts for it when calculating line-specific revenues, while Union Pacific’s method considers the higher-density nature of the Line in both calculations.⁴⁶

VII. Conclusion

Faithful application of the *SSW Compensation* principles and the CE method will produce an interest rental payment that services the public interest by correcting the current imbalance benefiting BNSF.

⁴⁴ Mathur VS at 65; UP Final Brief at 18–21.

⁴⁵ Mathur VS at 32; Mathur RVS at 55.

⁴⁶ UP Reply at 31; Mathur RVS at 42; UP Final Brief at 23–24.

Respectfully submitted,

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April 20, 2026

CERTIFICATE OF SERVICE

I hereby certify that on this 20th day of April, 2026, I caused a copy of the foregoing document to be served by email on all parties of record.

/s/ Michael L. Rosenthal

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ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY
—OPERATING RIGHTS—
SOUTHERN PACIFIC TRANSPORTATION CO.

SUPPLEMENTAL VERIFIED STATEMENT OF DR. DIVYA MATHUR

April 20, 2026

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1. My name is Divya Mathur. I submitted a verified statement in this matter on May 3, 2024 (hereafter “Mathur Statement” or “my initial statement”)¹ and a reply verified statement in this matter on March 14, 2025 (hereafter “Mathur Reply Statement” or “my reply statement”).²
2. I submit this Supplemental Verified Statement in response to the Board’s decision served on March 4, 2026 (hereafter “STB Decision”), which directed the parties to provide additional calculations and information associated with the Mojave-Kern Line (or “Line”) under the capitalized earnings (“CE”) approach. Specifically, the Board requested that the parties provide supplemental calculations and information regarding: (i) revenues attributable to the Line under certain scenarios; (ii) operating expenses attributable to the Line under certain scenarios; (iii) earnings attributable to the Line under certain scenarios; (iv) enterprise value-based multipliers, inflation indices, and usage factors for the years 2019 through 2020, and (v) a list of all outstanding issues that each party believes still need to be resolved.³
3. In this statement, I describe the calculations performed in response to the Board’s request. The resulting values are provided in the accompanying figures.

¹ Atchison, Topeka & Santa Fe Railway Company - Operating Rights - Southern Pacific Transportation Company - Verified Statement of Dr. Divya Mathur, Finance Docket No. 22218, May 3, 2024 (“Mathur Statement”) (or “my initial statement”).

² Atchison, Topeka & Santa Fe Railway Company - Operating Rights - Southern Pacific Transportation Company - Reply Verified Statement of Dr. Divya Mathur, Finance Docket No. 22218, March 14, 2025 (“Mathur Reply Statement”) (or “my reply statement”).

³ Atchison, Topeka & Santa Fe Railway Company - Operating Rights - Southern Pacific Transportation Company - Decision, Finance Docket No. 22218, March 4, 2026 (“STB Decision”).

I. REVENUES ATTRIBUTABLE TO THE LINE

4. In response to the Board's decision, I calculated revenues attributable to the Line under three scenarios requested by the Board.⁴ These calculations are shown in **Figure 1** below.

Figure 1. Revenues Attributable to the Line (in USD Millions)⁵

<u>Year</u>	<u>[A] All Traffic</u>	<u>[B] Excluding Double-Stack</u>	<u>[C] Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED] }}	[REDACTED]	[REDACTED]
2022	[REDACTED]	[REDACTED]	[REDACTED] }}

5. Column A of **Figure 1** shows revenues attributable to the Line for all traffic that traverses the Line, which are {{ [REDACTED] }} and {{ [REDACTED] }} for 2021 and 2022, respectively.

6. Column B of **Figure 1** shows revenues attributable to the Line under a scenario that excludes UP and BNSF earnings associated with intermodal containers moving in double-stack service. I identify and remove such traffic by isolating AAR U-type containers transported on AAR S-type cars.⁶ Under this approach, revenues attributable to the Line are {{ [REDACTED] }} and {{ [REDACTED] }} for 2021 and 2022, respectively.

⁴ STB Decision, pp. 2-3.

⁵ Mathur Supplemental Workpaper 4.01, "Backup to Figure 1 and Figures 3-8.xlsx." In **Figure 1** and **Figures 3 through 8**, I show total values across both UP and BNSF combined. See Mathur Supplemental Workpaper 4.01, "Backup to Figure 1 and Figures 3-8.xlsx," tab "Calculations for Figures," for the breakdown of revenues, operating expenses, and line earnings for UP versus BNSF.

⁶ I understand from Union Pacific that AAR Z-type trailers cannot be double-stacked even if they are transported on AAR S-type cars. Union Pacific, "What is Intermodal Equipment?" June 29, 2021, available at <https://www.up.com/news/service/tr060821-what-is-intermodal-equipment> ("To move by rail, trailers are loaded onto flatcars. Like containers, trailers can be transferred between trucks and rail cars. However, because they have wheels, they cannot be stacked.").

7. Column C of **Figure 1** shows revenues attributable to the Line under a scenario in which BNSF's non-double-stacked traffic earnings are reduced by one-half. To implement this scenario, I first exclude earnings associated with intermodal containers moving in double-stack service (as in Column B), and then reduce BNSF's remaining non-double-stack earnings by one-half. Under this approach, revenues attributable to the Line are {{ [REDACTED] }} and {{ [REDACTED] [REDACTED] }} for 2021 and 2022, respectively.

II. OPERATING EXPENSES ATTRIBUTABLE TO THE LINE

8. In response to the Board's decision, I calculated operating expenses attributable to the Line under the six scenarios requested by the Board. Specifically, the Board directed that line-segment operating expenses be calculated: (i) "based on the methodology described in each party's case in chief, including ROI" and (ii) "based on the methodology described in each party's case in chief, using fully allocated URCS less ROI[,]" for each of the three revenue scenarios.⁷

9. I note that both my initial statement and the methodology used by BNSF's experts exclude ROI costs when calculating operating expenses attributable to the Line.⁸ The difference between my approach and that of BNSF's experts lies in *how* ROI costs are removed.

10. In my initial statement, I begin with the total URCS cost allocated to the Mojave-Kern Line (shown in the black box in the first equation in **Figure 2** below) including ROI. This total—which is the sum of URCS variable cost and density-adjusted URCS fixed cost—is the same total cost I use for revenue allocation in my application of the ATC method. I then convert this

⁷ STB Decision, p. 4.

⁸ Mathur Reply Statement, footnote 111 ("Both the BZ Statement and I agree that ROI expenses should be removed from the costs used in Step 1 when calculating line operating expenses in Step 2.").

total URCS cost (which includes ROI) into operating expense (which excludes ROI) by applying a scaling factor, calculated as firmwide operating expense reported in each railroad's Form 10-K (which excludes ROI) divided by firmwide URCS total cost (which includes ROI).⁹

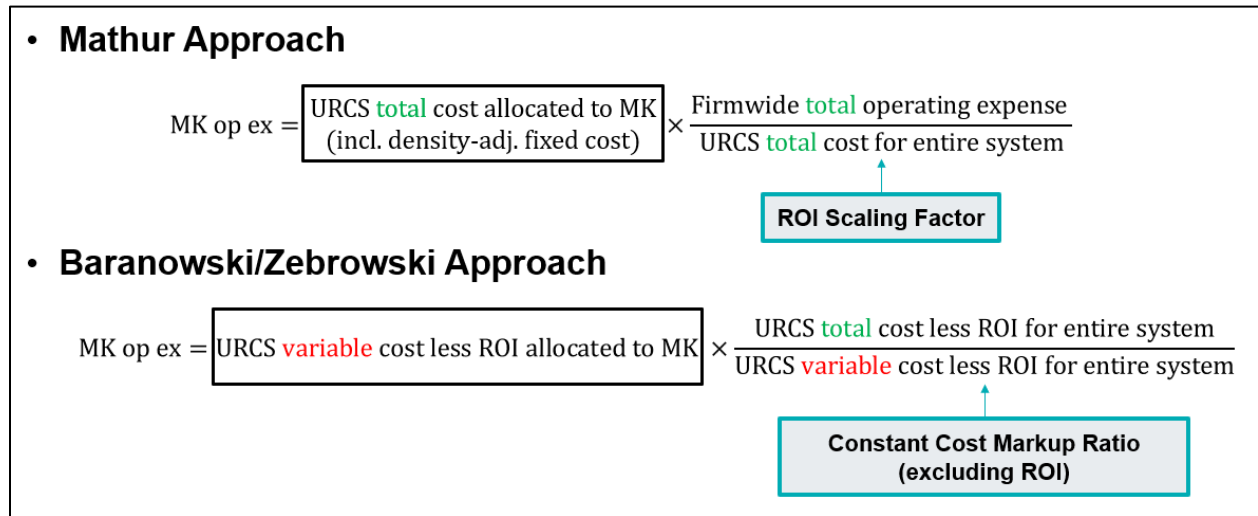
11. BNSF's experts take a different approach. They begin with URCS variable cost excluding ROI allocated to the Mojave-Kern Line (shown in the black box in the second equation in **Figure 2** below) and apply a constant cost mark-up ratio defined as firmwide URCS total cost less ROI divided by firmwide URCS variable cost less ROI.¹⁰ This approach implicitly assumes that system-wide cost relationships are representative of the Mojave-Kern Line, despite the Line's higher density and correspondingly lower fixed costs. BNSF's experts refer to their methodology as "fully allocated URCS less ROI."¹¹

⁹ Mathur Statement, p. 46 ("I take UP's system-wide operating expenses as reported in its 10-K and allocate them to the Mojave-Kern Line using the ratio of on-segment total costs estimated under the ATC method to UP's system-wide total costs from URCS."); Mathur Reply Statement, footnote 111 ("The only difference between the fixed and variable costs I use in Step 1 [allocating revenue to the Line] and Step 2 [calculating Line-specific operating expenses] is that the costs in Step 2 are scaled down relative to Step 1 to remove Return on Investment ('ROI') expenses. [...] My line earnings calculations from my initial statement remove ROI expenses in Step 2 by taking the exact fixed and variable costs I calculated in Step 1 and scaling these costs down by the relevant railroad's ratio of system-wide operating expenses (which exclude ROI expenses) to system-wide URCS total costs (which include ROI expenses).").

¹⁰ See Atchison, Topeka & Santa Fe Railway Company - Operating Rights - Southern Pacific Transportation Company - Reply Verified Statement of Michael R. Baranowski & Nathan S. Zebrowski, Finance Docket No. 22218, March 14, 2025 ("BZ Reply Statement"), p. 75, workpaper "7a. Define On and Off Segment URCS VC and On Segment OE (2019).sql," "7b. Define On and Off Segment URCS VC and On Segment OE(2020).sql," "7c. Define On and Off Segment URCS VC and On Segment OE(2021).sql," "7d. Define On and Off Segment URCS VC and On Segment OE(2022).sql," and "7. Define On and Off Segment URCS VC and On Segment OE.sql."

¹¹ BZ Reply Statement, p. 75 ("When reviewing Dr. Mathur's allocation of operating expenses relative to URCS costs that includes ROI, we also identified a mismatch in our initial development of operating expenses based on fully allocated URCS costs less ROI. [...] Accordingly, we calculate a constant cost markup based on the relationship of total costs to variable costs in URCS excluding ROI, and use this in place of the unadjusted constant cost markup in URCS which includes ROI amounts.").

Figure 2. Operating Expenses Allocated to Mojave-Kern (“MK op ex”)



12. I interpret the Board’s request for operating expenses calculated “based on the methodology described in each party’s case in chief, including ROI” to refer to my approach of removing ROI costs, which begins with URCS total cost including ROI.¹² **Figure 3** below shows operating expenses attributable to the Line for the three revenue scenarios based on this understanding.

¹² STB Decision, p. 4.

Figure 3. Operating Expenses Attributable to the Line Calculated Based on the Methodology “Including ROI” (in USD Millions)¹³

<u>Year</u>	<u>All Traffic</u>	<u>Excluding Double-Stack</u>	<u>Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED] }}	[REDACTED]	[REDACTED]
2022	[REDACTED]	[REDACTED]	[REDACTED] }}

13. I interpret the Board’s request for operating expenses calculated “based on the methodology described in each party’s case in chief, using fully allocated URCS less ROI[,]” to refer to BNSF’s experts’ approach of removing ROI costs, which they describe as “fully allocated URCS less ROI.”¹⁴ **Figure 4** below shows operating expenses attributable to the Line for the three revenue scenarios based on this understanding.

Figure 4. Operating Expenses Attributable to the Line Calculated Based on the Methodology “Using Fully Allocated URCS Less ROI” (in USD Millions)¹⁵

<u>Year</u>	<u>All Traffic</u>	<u>Excluding Double-Stack</u>	<u>Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED] }}	[REDACTED]	[REDACTED]
2022	[REDACTED]	[REDACTED]	[REDACTED] }}

III. EARNINGS ALLOCATED TO THE LINE

14. The Board directed that line-segment earnings be calculated “with and without negative earnings for each of the scenarios listed in the ‘Revenues’ section[.]”¹⁶ Because line-segment

¹³ Mathur Supplemental Workpaper 4.01, “Backup to Figure 1 and Figures 3-8.xlsx.”

¹⁴ STB Decision, p. 4; BZ Reply Statement, p. 75.

¹⁵ Mathur Supplemental Workpaper 4.01, “Backup to Figure 1 and Figures 3-8.xlsx.”

¹⁶ STB Decision, p. 4.

earnings are calculated as revenues less operating expenses, and the Board directed that operating expenses be calculated using two different methodologies as discussed above, I present earnings “with and without negative earnings” for each of the six scenarios listed in the “Operating Expenses” section.

15. **Figure 5** below shows earnings attributable to the Line *including* negative earnings for the three revenue scenarios with operating expenses calculated based on my understanding of what the Board referred to as the “methodology described in each party’s case in chief, including ROI” (*i.e.*, operating expense values from **Figure 3**).¹⁷ **Figure 6** below shows earnings attributable to the Line *excluding* negative earnings for these same three scenarios.

Figure 5. Earnings Attributable to the Line Including Negative Earnings and Operating Expense Calculated Based on the Methodology “Including ROI” (in USD Millions)¹⁸

<u>Year</u>	<u>All Traffic</u>	<u>Excluding Double-Stack</u>	<u>Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED]	[REDACTED]	[REDACTED]
2022	[REDACTED]}}	[REDACTED]	[REDACTED]}}

Figure 6. Earnings Attributable to the Line Excluding Negative Earnings and Operating Expense Calculated Based on the Methodology “Including ROI” (in USD Millions)¹⁹

<u>Year</u>	<u>All Traffic</u>	<u>Excluding Double-Stack</u>	<u>Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED]	[REDACTED]	[REDACTED]
2022	[REDACTED]}}	[REDACTED]	[REDACTED]}}

¹⁷ STB Decision, p. 4.

¹⁸ Mathur Supplemental Workpaper 4.01, “Backup to Figure 1 and Figures 3-8.xlsx.”

¹⁹ Mathur Supplemental Workpaper 4.01, “Backup to Figure 1 and Figures 3-8.xlsx.”

16. **Figure 7** below shows earnings attributable to the Line *including* negative earnings for the three revenue scenarios with operating expenses calculated based on my understanding of what the Board referred to as the “methodology described in each party’s case in chief, using fully allocated URCS less ROI” (*i.e.*, operating expense values from **Figure 4**).²⁰ **Figure 8** below shows earnings attributable to the Line *excluding* negative earnings for these same three scenarios.

Figure 7. Earnings Attributable to the Line Including Negative Earnings and Operating Expense Calculated Based on the Methodology “Using Fully Allocated URCS Less ROI” (in USD Millions)²¹

<u>Year</u>	<u>All Traffic</u>	<u>Excluding Double-Stack</u>	<u>Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED] }}	[REDACTED]	[REDACTED]
2022	[REDACTED]	[REDACTED]	[REDACTED] }}

Figure 8. Earnings Attributable to the Line Excluding Negative Earnings and Operating Expense Calculated Based on the Methodology “Using Fully Allocated URCS Less ROI” (in USD Millions)²²

<u>Year</u>	<u>All Traffic</u>	<u>Excluding Double-Stack</u>	<u>Reducing BNSF Non-Double-Stack by One-Half</u>
2021	{{ [REDACTED] }}	[REDACTED]	[REDACTED]
2022	[REDACTED]	[REDACTED]	[REDACTED] }}

²⁰ STB Decision, p. 4.

²¹ Mathur Supplemental Workpaper 4.01, “Backup to Figure 1 and Figures 3-8.xlsx.”

²² Mathur Supplemental Workpaper 4.01, “Backup to Figure 1 and Figures 3-8.xlsx.”

IV. EARNINGS MULTIPLIERS, INFLATION INDICES, AND USAGE FACTOR

17. **Figure 9** below shows enterprise value-based earnings multiplier, inflation indices, and usage factors for the years 2019 and 2020, as requested by the Board,²³ as well as for 2021 and 2022 for completeness. For comparability with my previous statements, **Figure 9** also includes the inflation adjustment needed to convert 2019-2022 dollars into 2023 dollars, as my prior statements reported the underlying index values only in the workpapers. These “2023 Inflation Adjustment” percentages are calculated as the percentage difference between 2019-2022 annual cost index (Annual Index of Chargeout Prices and Wage Rates – “Material prices, wage rates and supplements combined (excl. fuel)”) published by the Association of American Railroads (“AAR”) for the Western District and the 2023 index value of 701.0.²⁴

Figure 9. Earnings Multipliers, Inflation Indices, and Usage Factor²⁵

<u>Year</u>	<u>Earnings Multiplier</u>	<u>Inflation Index</u>	<u>2023 Inflation Adjustment</u>	<u>Usage Factor</u>
2019	{{			
2020				
2021				
2022				}}

²³ STB Decision, p. 5.

²⁴ Mathur Statement, p. 65; Mathur Reply Statement, pp. 53-54; “AAR Railroad Cost Indexes,” Association of American Railroads, March 2024, p. 8.

²⁵ Mathur Supplemental Workpaper 4.02, “Backup to Figure 9.xlsx.”

VERIFICATION

I, Divya Mathur, declare under penalty of perjury that the foregoing is true and correct.

Further, I certify that I am qualified and authorized to file this Verified Statement.

Executed on April 20, 2026.

A handwritten signature in black ink, appearing to read "D Mathur", is positioned above a horizontal line.

Divya Mathur, Ph.D.
April 20, 2026