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Cynthia T. Brown
Chief, Section of Administration
Office of Proceedings
Surface Transportation Board
395 E Street, SW
Washington, DC 20423

Re: *Reciprocal Switching, STB Ex Parte No. 711 (Sub-No. 1)*

Dear Ms. Brown:

Attached for filing in the above-captioned matter are the Opening Comments of the Association of American Railroads ("AAR") and supporting verified statements.

Electronic workpapers supporting the verified statement of Michael R. Baranowski, which is included with the filing, will be delivered separately to the Board by FTI Consulting. Those workpapers contain confidential waybill data and should be handled in accordance with the Board's procedures governing waybill data.

Sincerely,



Samuel M. Sipe, Jr.

*Counsel for the Association of American
Railroads*

Enclosures

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Ex Parte No. 711 (Sub-No.1)

Reciprocal Switching

**OPENING COMMENTS OF THE
ASSOCIATION OF AMERICAN RAILROADS**

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October 26, 2016

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Verified Statement of Michael R. Baranowski

Verified Statement of Mark Fagan

Verified Statement of William J. Rennicke

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Ex Parte No. 711 (Sub-No.1)

Reciprocal Switching

**OPENING COMMENTS OF THE
ASSOCIATION OF AMERICAN RAILROADS**

These are the opening comments of the Association of American Railroads (“AAR”) in response to the Board’s July 27, 2016 Notice of Proposed Rulemaking (“Decision”)¹ initiating a rulemaking proceeding to address proposed new reciprocal switching rules developed by the Board. AAR opposes the proposed rules and explains in these comments why they cannot lawfully be adopted.

I. INTRODUCTION AND SUMMARY OF COMMENTS

The proposed reciprocal switching rules are unlawful. They are contrary to established law dating back well before the Staggers Act² and providing that a shipper must show “actual necessity” to obtain an order of forced switching. *Jamestown, N.Y., Chamber of Commerce v. Jamestown, Westfield & N.W. R.R. Co.*, 195 I.C.C. 289, 292 (1933). They ignore the statutory language that itself requires a showing of necessity for a switching order. The rules give no weight to provisions of the Rail Transportation Policy (“RTP”)³ directing the agency to allow market forces to govern railroad commercial activity to the maximum extent possible and to minimize regulatory intervention into the market. In contrast to the existing competitive harm

¹ *Reciprocal Switching*, STB Ex Parte No. 711 (Sub-No. 1)(served July 27, 2016).

² Staggers Rail Act of 1980, Pub. L. 96-448, 94 Stat. 1895 (1980).

³ See 49 U.S.C. § 10101.

standard of the Board’s Competitive Access Rules (“CARs”),⁴ the proposed switching rules would allow a shipper to obtain a forced switching order without any showing of need to remedy a harm. They are a “no fault” recipe for regulatory intervention that turns the existing access regime upside down. The omission of the requirement that a shipper show need to obtain an order of forced switching is particularly puzzling in light of the Board’s unambiguous statement in the Decision that a shipper seeking a switching order “would be required . . . to bear the burden of showing that reciprocal switching is needed. There would be no presumption of need.” Decision at 19.

The Board in its Decision also acknowledges that granting access “on demand” is impermissible under the governing statute, Decision at 15, but the proposed rules contain no mechanism for preventing this admittedly unlawful result. As written, the rules would allow access on demand, particularly under the second prong where a sole-served shipper would only have to show that it is located near a working interchange and served by a market dominant railroad to justify a switching order. Even under the first prong, the Board does not reflect the governing law that limits its discretion to order forced switching. The Board’s suggestion that it might tighten the access spigot on a case-by-case basis cannot remedy the rules’ infirmities when there is no mechanism for accomplishing this result, no recognition of the statutory limits on the Board’s authority, and no set of standards to guide the Board in complying with those statutory limits.

The Board avoids addressing the substance of the central policy directives that led the ICC to adopt the existing standard – the policies set forth in 49 U.S.C. § 10101(1)-(3) to rely on demand-based pricing, to “minimize the need for Federal regulatory control over the rail

⁴ 49 C.F.R. § 1144.2.

transportation system,” and to allow rail carriers “to earn adequate revenues.” The Board’s newly proposed reciprocal switching rules would undermine demand-based pricing, entail a significant increase in regulatory control, and threaten rail carriers’ revenue adequacy by substituting artificial competition for marketplace decisions involving the routing of traffic and the setting of rates. It is not lawful for the Board to launch a program of increased regulatory activity without first assessing whether the program can be reconciled with the deregulatory policies set out in the RTP.⁵

The Decision refers repeatedly to the Board’s discretion under the statute as justification for a rules change. But the Board’s predecessor recognized that Congress’s strong deregulatory intent in the Staggers Act and the RTP imposed significant constraints on the ICC’s discretion to order reciprocal switching. The ICC and the courts clearly understood that whatever discretion the agency had under the statute, it did not include the discretion to create artificial competition, to restructure the rail industry, or to permit shippers to use forced switching to circumvent statutory requirements governing rate reasonableness. ICCTA,⁶ which created the Board, reinforced the deregulatory approach Congress adopted in the Staggers Act.

The proposed rules are also legally flawed because the Board has failed to set forth a coherent rationale for moving from a model of access as a remedy for harm to a model where access can be granted without a demonstration of need. The Administrative Procedure Act requires a reasoned explanation of an agency’s change in policy. But the reasons given by the Board for reversing long-standing policy – dearth of cases under the existing standards, increased industry concentration leading to reduced “naturally occurring” switching, improved financial

⁵ See, e.g., *Association of American Railroads v. Surface Transportation Board*, 237 F.3d 676, 680-81 (D.C. Cir. 2001)(remanding case because the Board had failed to consider “important language” from the RTP regarding deregulation).

⁶ ICC Termination Act of 1995, Pub. L. 104-88, 109 Stat. 803 (1995).

health, and technological advances – are makeweights. They are not supported by salient facts. They are not connected to the substance of access policy. The Board has provided no rational explanation for changing its reciprocal switching rules.

The failure of the Board to articulate a reasonable justification for reversing established regulatory policy is accompanied by the inexplicable failure to conduct any assessment of the likely impact of its proposed switching rules. When the Board launched its original EP 711 proceeding,⁷ it believed that assessing the likely impact of the National Industrial Transportation League’s (“NITL”) proposed rules was crucial. But once the Board had collected extensive information on impact from multiple parties, it essentially ignored it. Moreover, the Board failed to make any assessment of the likely impact of its proposed rules. AAR’s witness Michael Baranowski shows that the Board’s proposed rules potentially affect a significantly greater number of carloads than the NITL proposal, and even under the second prong of the proposed rules, the number of carloads potentially subject to forced switching substantially exceeds the level that the Board considers to be “significant.” Decision at 34.

The Decision contains no analysis of the potential benefits and costs of the proposed rules, notwithstanding the clear legal requirement that an agency assess the costs imposed by new regulatory schemes. *Michigan v. EPA*, 135 S. Ct. 2699 (2015). AAR’s witness Mark Fagan explains why the Board’s failure to analyze costs and benefits in its Decision has resulted in the formulation of rules that are not rational or grounded in sound policy.

Despite its failure to address the evidence of impact in EP 711, the Board acknowledges concerns over possible service impacts of forced switching, yet appears to believe that those

⁷ *Petition for Rulemaking to Adopt Revised Competitive Switching Rules*, STB Ex Parte No. 711 (served July 25, 2012)(“EP 711 Notice”). Hereafter, citations to items of record in that proceeding are referenced as “EP 711.”

concerns can be addressed on a case-by-case basis. But as AAR’s witness William Rennicke explains, the unintended consequences of expanded use of access remedies cannot be adequately addressed through case-by-case litigation.

The proposed rules are invalid. The Board should withdraw them and terminate this proceeding.

II. BACKGROUND

The ICC’s Competitive Access Rules adopted in 1985 were an outgrowth of the RTP, including the policies to rely on market forces to the maximum extent possible, to allow demand-based differential pricing, to promote revenue adequacy, and to minimize the role of federal regulation in rail transportation markets.⁸ Those policies remain unchanged by Congress. The courts recognized, when the CARs were first adopted and the first case under them was decided, that the agency had properly understood congressional policy and that its decision to impose access remedies only when they are needed to remedy competitive harm, *i.e.*, market failure, was sound. *Midtec Paper Corp. v. United States*, 857 F.2d 1487 (D.C. Cir. 1988) (“*Midtec*”).

Despite the lack of change in congressional policies, some shipper interests have continuously pled for greater regulatory largesse, and the agency has held proceedings to explore these shipper claims that a preferable policy would be to promote access ordered by the regulator that would presumably lead to lower rail rates. The first of these proceedings, *Review of Rail Access & Competition Issues*, STB Ex Parte No. 575 (served Apr. 17, 1998), is explicitly referenced in the Board’s July 27 Decision in this docket. The Board characterizes the 1998 decision in EP 575 as “noting that [the] statute requires a showing of need for access remedies and does not permit such remedies merely ‘on demand.’” Decision at 15.

⁸ See *Intramodal Rail Competition*, 1 I.C.C.2d 822, 823 (1985), *aff’d sub nom. Baltimore Gas & Elec. v. United States*, 817 F.2d 108 (D.C. Cir. 1987).

In 2011, the Board initiated a new proceeding, *Competition in the Railroad Industry*, STB Ex Parte No. 705, “to explore the current state of competition in the railroad industry and possible policy alternatives to facilitate more competition. . . .” Decision at 4. The railroad industry presented extensive evidence showing that competition in the railroad industry remained vigorous and explained in great detail why unnecessary regulatory intervention into rail markets with the intention of “facilitating more competition” would be contrary to congressional policy and the public interest.⁹ The Board never addressed the substantive issues raised in that proceeding.

Shortly after the public hearing in EP 705, NITL filed its Petition in EP 711, *Petition for Rulemaking to Adopt Revised Competitive Switching Rules*. AAR argued that the NITL Petition should be assessed in the context of the broader EP 705 evidence.¹⁰ But the Board then terminated the EP 705 proceeding without making any substantive decision on the merits.

In EP 711, after reviewing the NITL proposal, the Board sensibly concluded that it would be unwise to embark on approving a new forced switching rule based on NITL’s petition unless it determined that such a rule would yield overall public benefits and not impose undue costs. The Board launched a major proceeding to assess the benefits and costs of NITL’s proposal.¹¹

⁹ See, e.g., Initial Comments of the Association of American Railroads, *Competition in the Railroad Industry*, STB Ex Parte No. 705, at 6-23 (filed Apr. 12, 2011); Reply Comments of the Association of American Railroads, *Competition in the Railroad Industry*, STB Ex Parte No. 705, at 6-19 (filed May 27, 2011).

¹⁰ Reply of the Association of American Railroads to the National Industrial Transportation League’s Petition for Rulemaking, EP 711 (filed July 27, 2011).

¹¹ EP 711 Notice.

Responsive parties – including AAR¹² and its member railroads¹³ – produced extensive data and evidence on the potential scope and impact of the NITL proposal. The Board has kept to itself what use, if any, it has made of the information submitted in EP 711. The Decision devotes one paragraph to the subject and draws no conclusions. Decision at 8.

AAR believes that fair consideration of the evidence submitted in EP 711 should have led the Board to conclude that it would be unwise to adopt new reciprocal switching rules that had the goal of making reciprocal switching more widely available. Instead the Board has proceeded down a path that is both unwise and unlawful.

III. THE PROPOSED SWITCHING RULES ARE UNLAWFUL BECAUSE THEY FAIL TO REQUIRE THE PROPONENT OF A SWITCHING ORDER TO SHOW THAT RECIPROCAL SWITCHING IS NEEDED TO SOLVE A PROBLEM OR REMEDY A HARM

The Board’s proposed reciprocal switching rules are invalid because they are contrary to established law that requires a showing of need for the agency to order forced switching. In its decision, the Board acknowledges that such a showing of need is required but it fails to incorporate that requirement into the proposed rules as drafted. The rules as drafted would allow switching on demand for some shippers, which is unlawful, as the Board itself recognizes.

¹² AAR submits its Opening and Reply evidence and comments from the original EP 711 proceeding as an appendix to these comments so that they will constitute part of the record in this docket, EP 711 (Sub-No. 1).

¹³ See, e.g., Opening Comments of CSX Transportation, Inc., EP 711, at 24-48 (filed Mar. 1, 2013) (“CSX 711 Op.”); Opening Comments of Kansas City Southern Railway Co., EP 711, at 14-16 (filed Mar. 1, 2013) and attached Verified Statement of Gregory Walling; Comments of Norfolk Southern Railway Co., EP 711, at 59-80 (filed Mar. 1, 2013) (“NS 711 Op.”) and attached Verified Statement of Fred M. Ehlers; Opening Comments and Evidence of Union Pacific Railroad Co., EP 711, at 22-57, 67-72 (filed Mar. 1, 2013) (“UP 711 Op.”); Reply Comments of CSX Transportation, Inc., EP 711, at 29-47 (filed May 30, 2013).

A. Established Law Requires a Showing of Need for an Order Directing Forced Switching

In exercising authority under section 11102(c), the Board is not writing on a blank slate. When it enacted the predecessor to that provision in the Staggers Act, Congress understood that the “practicable and in the public interest” language of section 11102(c) must be read to encompass the “actual necessity or compelling reason” test adopted by the ICC and endorsed by Congress. Since at least *Jamestown*, 195 I.C.C. at 292, a showing of “actual necessity” has been required before finding it in the “public interest” to require a carrier to provide terminal access under the statute. Congress intended that the standard used in applying the “practicable and in the public interest” test for reciprocal switching be “the same standard the Commission has applied in considering whether to order the joint use of terminal facilities.” H.R. Rep. No. 96-1430, at 116-17 (1980). *See also* S. Rep. No. 96-470, at 42 (1979)(same); *Central States Enterprises, Inc. v. ICC*, 780 F.2d 664, 668 (7th Cir. 1985)(same). The ICC’s decision in *Delaware & Hudson Railway Co. v. Consolidated Rail Corp.*, 367 I.C.C. 718, 720 (1983), recognized that the *Jamestown* standard of “actual necessity” applies to grants of reciprocal switching under what the Board characterizes here as the first prong.¹⁴

The pre-Staggers cases decided under the “practicable and in the public interest” language that now forms the basis for prong one of the Board’s proposed switching rules consistently addressed forced access as a remedy for inadequate service.¹⁵ In adding the

¹⁴ *Delaware & Hudson’s* analysis under the need for competitive rail service prong, which the Board characterizes as the second prong, was overruled by the ICC in *Midtec Paper Corp. v. Chicago & Northwestern Transportation Co.*, 1 I.C.C. 2d 362, 367 (1985). The ICC found that refusal to consider forms of competition other than rail when evaluating whether switching was competitively necessary was inconsistent with the statute.

¹⁵ *See, e.g., Spokane, Portland & Seattle Railway Co. and Union Pacific Railroad Co. – Control – Peninsula Terminal Co.*, 348 I.C.C. 109, 140 (1975)(finding “compelling reason” to grant

switching provision in Staggers, Congress recognized that “in areas where reciprocal switching is feasible, it provides an avenue of relief for shippers served by only one railroad *where service is inadequate.*”¹⁶ Accordingly, the ICC explained in its brief to the Seventh Circuit in *Central States* that “[t]he need to show inadequacy of service as a prerequisite for an award of either joint terminal use or reciprocal switching is dictated by the legislative history of Section [11102(c)] and precedent.”¹⁷

Section 11102(c) also authorizes the Board to order forced switching when “*necessary* to provide competitive rail service.” Thus, the requirement that a shipper show need to obtain the remedy of forced switching is contained in the statutory language that forms the basis for the Board’s proposed prong two. The language plainly contemplates that switching would be granted only where it is “*necessary*,” and not simply where it is desired.

The requirement that a shipper seeking forced switching show need for the remedy is grounded not only in the language of the statute at issue and the case law interpreting that language, but also in the provisions of the RTP enacted in Staggers. The RTP directed the agency to allow market forces as reflected in demand-based pricing to govern railroad commercial activity to the maximum extent possible and to minimize regulatory intervention into the market, limiting such intervention to those circumstances where it is needed to correct a market failure or abuse.¹⁸ Further, when considering regulatory intervention, the Board must be

terminal access because “current service . . . over this line of track is clearly inadequate and does not meet the needs of the shipping and receiving public”).

¹⁶ S. Rep. No. 96-470, at 42 (1979)(emphasis added).

¹⁷ Joint Brief for the Interstate Commerce Commission and the United States of America, *Central States Enterprises, Inc. v. ICC*, Docket No. 84-2005, at 37 n.31 (7th Cir.)(filed November 15, 1984).

¹⁸ See, e.g., 49 U.S.C. §§ 10101 (1), (2), (6) & (12). The Board’s Decision does not once refer to the policy set out in 49 U.S.C. § 10101(2) “to minimize the need for Federal regulatory control

mindful of the impact on revenues necessary to sustain a safe and efficient rail transportation system.¹⁹

The agency has long adhered to these statutory imperatives. In its brief to the D.C. Circuit in the *Midtec* case, the ICC explained that the “central philosophy of the Staggers Act” is that “regulation should be reserved for situations where it is needed to protect against abuses.”²⁰ The ICC adhered to this “central philosophy of the Staggers Act” as set out in the RTP in adopting rules that required that a shipper show need to obtain the remedy of forced switching. Under that standard, the role of government regulation in ordering forced switching is limited to when it is needed to rectify market failures or prevent abuse of market power. As the Board stated in the Decision, at 3, the “regulations provided that reciprocal switching would only be prescribed if the agency determines that it ‘is necessary to remedy or prevent an act that is contrary to the competition policies of 49 U.S.C. 10101 or is otherwise anticompetitive,’ and ‘otherwise satisfies the criteria of . . . 11102(c).’”

The agency and the courts have recognized that grants of access that are not predicated on the need to correct competitive harm are unlawful and could result in an impermissible restructuring of the freight rail industry:

“[W]e think it correct to view the Staggers changes as directed to situations where some competitive failure occurs. There is a vast difference between using the Commission’s regulatory power to correct abuses that result from insufficient intramodal competition and using that power to initiate an open-ended restructuring of

over the rail transportation system” or discuss why that factor, which strongly influenced the ICC’s conclusion that access must be used only “to protect against abuses,” might allow the Board to impose reciprocal switching without any showing of abuse.

¹⁹ 49 U.S.C. § 10101(3).

²⁰ Joint Brief for Respondents Interstate Commerce Commission and United States of America, *Midtec Paper Corp. v. ICC*, Docket No. 87-1032, at 25 (D.C. Cir.) (filed Mar. 14, 1988) (“ICC *Midtec* Brief”).

service to and within terminal areas solely to introduce additional carrier service.”²¹

The Board now contends that it is free to abandon its prior competitive abuse requirement – and the underlying rationale for that policy – and adopt new rules “given the absence of any suggestion that Congress intended to limit the agency’s discretion with regard to reciprocal switching.” Decision at 13. The notion that Congress gave the Board unbounded discretion under section 11102(c) to ignore binding interpretations of the statutory language and the constraints imposed by the RTP when considering the standard governing the reciprocal switching remedy is patently unreasonable. The ICC explained in its defense of the existing competitive harm standard that regulatory “intrusion into carrier operations and pricing practices in the absence of some real or threatened abuse simply cannot be squared with a fair reading of the rail transportation policy.”²² The Board does not explain why it is no longer bound by the constraints on its authority to order forced switching that were binding on its predecessor.

The constraints on discretion that the agency recognized in *Midtec* were not relaxed by ICCTA. To the contrary, they were reinforced. In ICCTA, Congress “continue[d] the deregulation theme of the past 15 years.”²³ ICCTA “builds on the deregulatory policies that have promoted growth and stability in the surface transportation sector. . . . The [Act] keeps bureaucracy and regulatory costs at the lowest possible level, consistent with affording remedies only where they are necessary and appropriate.”²⁴

²¹ *Midtec Paper Corp. v. Chicago & Northwestern Transportation Co.*, 3 I.C.C.2d 171, 174 (1986)(“*Midtec II*”), aff’d, *Midtec Paper Corp. v. United States*, 857 F.2d 1487 (D.C. Cir. 1988).

²² ICC *Midtec* Brief, at 18 n.12.

²³ S. Rep. No. 104-176, at 5 (1995).

²⁴ H.R. Rep. No. 104-311, at 93 (1995). Indeed, the Senate made it clear it did not intend to redesign the existing regulatory structure: “Beyond weeding out outdated and unnecessary provisions, the bill generally does not attempt to substantively redesign rail regulation.” S. Rep.

A critical corollary to the legal requirement that a shipper show need for the remedy of forced access is that access will not be granted merely “on demand,” or on the basis of a shipper’s desire to be served by two carriers rather than one. The Board acknowledges that the “statute requires a showing of need for access remedies and does not permit such remedies merely ‘on demand.’” Decision at 15 (citing *Review of Rail Access & Competition Issues*, STB Ex Parte No. 575, slip op. at 6 (served Apr. 17, 1998)). Moreover, according to the Board itself, “[t]here is no indication that Congress intended the agency to prescribe reciprocal switching whenever it would enhance competition.” Decision at 15 (citing *Midtec*, 857 F.2d at 1507).

The requirement of a showing of need to obtain an order forcing access through switching and the prohibition of access “on demand” are two sides of the same coin. That is, if a shipper were *not* required to show need and were able to obtain a switching order merely because it would prefer two carrier service, it would be obtaining access “on demand.” The Board’s existing competitive harm standard accommodates both principles; it requires a showing of need and precludes the grant of a switching remedy on demand. The Board’s proposal to remove and replace that standard in switching cases violates both principles.

B. The Board’s Decision Acknowledges that Need Will Not Be Presumed But Inexplicably Proposes Rules that Do Not Require a Showing of Need

The Board’s Decision recognizes that the law requires a shipper to show need to justify the remedy of forced switching.²⁵ As noted above, the Decision quotes approvingly from Ex

No. 104-176 at 6 (1995). The House stated that “The Committee intends that the Panel continue the policy of granting railroads the maximum possible freedom to set rates, routes, and divisions, so long as these actions are not anticompetitive.” H.R. Rep. No. 104-311 at 98 (1995).

²⁵ The Decision is infused with the recognition that forced switching is a “remedy,” using that term in reference to switching multiple times. *See, e.g.*, Decision at 6 (citing shipper support “to make the remedy more widely available”), 9 (“important available remedies have become dormant”), 13 (Board prefers and approach that “makes the remedy more equally available to all shippers”), 13-14 (“bright-line cut-offs would make this remedy both over inclusive and under

Parte No. 575 the statement that the “statute requires a showing of need for access remedies.” In the same paragraph of the Decision in which it addresses “removal” of the anticompetitive conduct requirement of the CARs, the Board states that, notwithstanding the removal, under the proposed new rules “shippers would be required . . . to . . . bear the burden of showing that reciprocal switching is needed. There would be no presumption of need.” Decision at 19. Furthermore, in her separate comment, Commissioner Miller, who voted in support of the Board’s 2-1 decision, states: “I believe that for shippers to obtain this [switching] remedy, a shipper should still have to demonstrate that reciprocal switching is needed based on one of the reasons articulated by Congress, rather than for it to simply be presumed to be needed.” Decision at 32.

Despite this unambiguous recognition within the text of the Board’s decision that the law requires a showing of need for a switching remedy, *the proposed rules as written omit the requirement of a showing of need*. See text of proposed 49 C.F.R. § 1145.2, Decision at 41-42. Whether or not this is an oversight, the omission of the requirement of need from the rules allows for outcomes that Congress forbade – regulatory intrusion into markets when there is no harm to be remedied and a grant of switching on demand.

C. Both Prongs of the Proposed Rules Would Impermissibly Authorize Forced Switching Without a Showing of Need

Both prongs of the Board’s proposed rules fall short of requiring the showing of need that the Board itself recognizes is required. In different ways the two prongs hold out the possibility of switching on demand, which the Board acknowledges is contrary to law.

inclusive”), 15 (“a remedy expressly authorized by Congress”), 20 (“NITL’s proposal specifically limited the proposed remedy”), 26 (“availability of a reciprocal switching remedy”). Outside the medical context, “remedy” is defined as “a successful way of dealing with a problem or difficulty.” In the legal context, “remedy” is defined as “[t]he means of enforcing a right or preventing or redressing a wrong.” *Black’s Law Dictionary* 1485 (10th ed. 2014).

1. Prong One – Practicable and in the Public Interest

As to the first prong, the Board proposes to give content to the term “practicable and in the public interest” by requiring the party seeking switching to show “that the potential benefits from the proposed switching arrangement outweigh the potential detriments.” Decision at 18. The proposed rule then lists various “relevant factors” that the Board may consider in determining whether benefits outweigh detriments. The factors identified by the Board do not require that a shipper show “actual need” for forced switching. Thus a shipper could get relief under prong one as written without a showing of need, contrary to the long-standing legal requirement of such a showing.

The Board’s proposal to implement the “practicable and in the public interest prong” through an open-ended benefits/detriments determination is unexplained and at odds with the accepted interpretation of this statutory language. As discussed above, “practicable and in the public interest” has been consistently construed as requiring a showing of “actual necessity” to obtain the remedy of forced switching. The Board cannot simply ignore this long-standing construction of the statutory language.

Without a showing that a remedy is needed, a shipper could obtain an order of forced switching under prong one simply because it wants lower rates that might result from access by a second carrier. Reciprocal switching, however, is not an alternative vehicle for rate relief.²⁶ Moreover, the mere transfer of revenue from a railroad to a customer yields no public benefits; it is a private wealth transfer. As Mr. Fagan explains, public benefits are those that have value to society; they are broader than benefits realized by private parties. Fagan V.S. at 1 n.1.

²⁶ *Midtec*, 857 F.2d at 1505-06.

Although outcomes are completely unpredictable under the Board’s first prong as drafted, a shipper could obtain a switching order with no showing of need. This outcome would amount to access implemented by regulatory intrusion into the market without good reason, contrary to the law and the RTP.

2. Prong Two – Necessary to Provide Competitive Rail Service

As to the second prong, “necessary to provide competitive rail service,” the Board fails to give any weight to the word “necessary” that appears in the statute. The Board does not require that a shipper seeking an order of forced switching under prong two make a showing of need nor does it specify particular needs (*e.g.*, the need to remedy competitive harm or inadequate service) that could support a request for switching. Instead the actual requirements of prong two as written effectively say that the Board will *presume need* from a showing that a shipper is served by a single rail carrier that has market dominance. (Proposed 49 C.F.R. §1145.2(a)(2) (i, ii)). This is contrary to law and precisely the opposite of how the Board says the new rules would work in the text of the decision: “There would be no presumption of need.” Decision at 19.

The status of being the sole rail carrier serving a shipper facility was a common one, not a problem in need of a remedy, at the time of the enactment of Staggers and it remains so today.²⁷ It would be unlawful and contrary to years of precedent for the Board to assume that the status of being sole served creates the need for a regulatory remedy. The Board’s merger jurisprudence repeatedly recognizes the existence of shippers served by only a single carrier and adheres rigorously to the principle that merger conditions should not be used to create multiple service

²⁷ See, e.g., ICC *Midtec* Brief, at 17 n.11 (“The repercussions of an open-ended use of forced switching, as Midtec and intervenors advocate here, should not be underestimated. The majority of the shippers in this country that receive rail service are served directly by a single rail carrier.”).

options for those sole-served shippers.²⁸ Importantly, from the perspective of economic efficiency, the existence of sole-served shippers may represent an efficient, market-determined allocation of resources in many circumstances. AAR's witness Robert Willig explained in EP 705 that the existence of sole-served facilities is a logical result of rail industry economics and does not suggest any market failure requiring a regulatory remedy:

A market where there is no evidence of abusive conduct and where there are also no competitive rail alternatives available to shippers may well indicate that there is no efficient role for a competitor. If there were an efficient competitive alternative, the market would either support two independent facilities *or* the incumbent railroad, recognizing the efficiency of a competitive entrant, would have incentives to agree to a negotiated access agreement. Therefore, in markets where there is only one participant and no competitive concern, regulator-imposed access coercively mandates arrangements for sharing facilities that are not sufficiently efficient to have emerged from market forces.²⁹

Nor is a showing of market dominance sufficient to demonstrate a need for the remedy of reciprocal switching. Congress took pains to instruct the agency that a finding of market dominance “does not establish a presumption that . . . the proposed rate exceeds or does not exceed a reasonable maximum.” 49 U.S.C. § 10707(d)(2). In other words, a finding of market dominance alone *cannot* establish even a presumption that a railroad has abused its market power by charging unreasonable rates. The complainant must separately prove that the rate exceeds a

²⁸ See, e.g., *Union Pacific Corp., et al. – Control and Merger – Southern Pacific Rail Corp., et al. (Houston/Gulf Coast Oversight)*, 3 S.T.B. 1030, 1032 (1998) (“Well established transportation law recognizes that some shippers are served by a single railroad. . . . Because the railroad industry is not an open-access industry, and because some shippers may pay more than others under the law that we administer, merger proceedings are not used as vehicles to equalize the competitive positions of shippers generally. . . . [C]onditions that the Board imposes in a merger proceeding are designed to ameliorate specific merger-related harm, not to simply add more competitors.”).

²⁹ Initial Comments of the Association of American Railroads, *Competition in the Railroad Industry*, STB Ex Parte No. 705, Verified Statement of Robert Willig, at 17 (filed Apr. 12, 2011).

reasonable level.³⁰ The concept of market dominance in the statute is a threshold that must be cleared prior to showing that a rate is unreasonable, not, on its own, the basis for any regulatory relief. The Board proposes to extend its use of the concept of market dominance from the rate reasonableness context, where it is a statutory threshold requirement, and to treat a finding of market dominance as a justification for forced switching. It is completely illogical to propose, as the Board does, that a concept that does not even establish a presumption of market abuse with respect to rates could alone justify the remedy of reciprocal switching. Again, under the Board's second prong as drafted, a shipper could obtain a switching order with no showing of need.

The Board's proposed reliance on market dominance as the basis for forced switching under prong two is also irrational because market dominance as that concept is currently applied by the Board does not show the absence of effective competition. The Board's market dominance test excludes consideration of product and geographic competition.³¹ Thus, under the current market dominance standards, the Board can find market dominance where no market power exists.³² At least in the rate reasonableness context, the complainant must still prove that the challenged rates are unreasonable using standards that reflect competitive market principles. In the switching context, a finding of market dominance without evidence of harm, as proposed by the Board, would throw open the door to forced switching notwithstanding the presence of effective competition, a plainly arbitrary outcome.

³⁰ The use of forced switching as an alternative vehicle for obtaining lower rates is unlawful because it circumvents the required showing of unreasonableness.

³¹ *Market Dominance Determinations – Product & Geographic Competition*, 3 S.T.B. 937 (1998).

³² See *Midtec*, 857 F.2d at 1513 (“it could hardly be doubted as a matter of economics that intermodal and geographic competition are relevant in determining whether there is the potential for anticompetitive conduct in a particular market”).

If rates and service are both reasonable, it is not “necessary to provide competitive rail service” through a forced switching remedy and there is no justification for regulatory intrusion into rail transportation markets. However, the Board states in its Decision that “[t]he purpose of ordering reciprocal switching under this prong [two] is to encourage competition between two carriers.” Decision at 27. This form of encouragement is contrary to the Board’s own precedent. The Board previously explained in the *Bottleneck* cases³³ that the idea of “encouraging competition” does not extend to the creation of artificial competition.³⁴

The Board was not breaking new ground in rejecting artificial competition in the *Bottleneck* cases. The D.C. Circuit had already ruled in its *Midtec* decision that artificial competition in the form of agency mandated switching is not permitted under Staggers and the RTP: “If the Commission were authorized . . . to prescribe reciprocal switching . . . whenever such an order could enhance competition between rail carriers, it could radically restructure the railroad industry. We have not found even the slightest indication that Congress intended the

³³ *Central Power & Light Co. v. S. Pac. Transp. Co.*, 1 S.T.B. 1059 (1996) (“*Bottleneck I*”), clarified, *Central Power & Light Co. v. S. Pac. Transp. Co.*, 2 S.T.B. 235 (1997) (“*Bottleneck II*”), aff’d sub nom. *MidAmerican Energy Co. v. STB*, 169 F.3d 1099 (8th Cir. 1999).

³⁴ *Bottleneck II*, 2 S.T.B. at 239. The distinction between naturally occurring competition and artificial competition is an important one that the Board itself recognizes. In the Decision, for example, the Board points to the phenomenon of “naturally occurring” switching that involves market transactions between consenting rail carriers. Decision at 9. Competition that occurs naturally is the “competition and . . . demand for rail services” that the Board is supposed to encourage under section 10101(1). Another example of market-based competition that the Board might properly encourage would be a proposed build-in to a sole-served facility by a second rail carrier. In contrast, artificial competition to create two carrier service where it would not otherwise exist is not authorized by the RTP except as a remedy for a competitive harm. As the D.C. Circuit stated in *Midtec*, “competition policy is not a matter of regulators handicapping would-be competitors in order to create an evenly matched contest.” *Midtec*, 857 F.2d at 1503.

Commission in this way to conform the industry more closely to a model of perfect competition.” 857 F.2d at 1507.³⁵

For a significant category of shippers – those who are solely served by a market dominant rail carrier and within a reasonable distance of an interchange – the express requirements of prong two, which omit a showing of need, would allow for switching on demand, which is unlawful.

IV. THE BOARD’S PROPOSED RULES ARE NOT THE PRODUCT OF REASONED AGENCY DECISIONMAKING

When an agency changes long-standing policy, the Administrative Procedure Act (“APA”) requires that the agency provide a reasoned explanation of the change in policy. *Motor Vehicle Mfrs. Assn of United States Inc. v. State Farm Mut. Automobile Ins. Co.*, 463 U.S. 29, 43 (1983). The Supreme Court recently called this obligation “[o]ne of the basic procedural requirements of administrative rulemaking.” *Encino Motor Cars, LLC v. Navarro*, 136 S. Ct. 2117, 2125 (2016). Further, when an agency reverses existing regulatory policy, the “agency must explain why ‘it now reject[s] the considerations that led it to adopt that initial policy.’” *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 535 (2009)(Kennedy, J., concurring, agreeing with and quoting the dissent at 550). The agency must “‘show that there are good reasons for the new policy.’” *Encino*, 136 S. Ct. at 2126 (quoting *Fox*, 556 U.S. at 515).

The Decision here does not meet the requirements of the APA. The Board points to very few facts that purportedly support its change in policy, and there is no rational connection

³⁵ The Board tries to avoid the holding of *Midtec* by asserting that it is not authorizing “full” open access, but the substance of its proposed rules suggests that it is creating some version of access on demand, notwithstanding its recognition that “the statute . . . does not permit such [access] remedies merely ‘on demand.’” Decision at 15. A rule that would grant access on demand without a showing of need for some shippers is not rendered lawful because it is a less egregious violation of the RTP than full open access.

between those facts and the Board’s conclusion that the reciprocal switching rules need to be changed. The Decision also fails to consider the potential impact of a change in reciprocal switching rules on railroads and shippers, notwithstanding the Board’s own recognition in EP 711 of the importance of knowing how a change in reciprocal switching rules would affect the industry and the legal requirements under the APA to consider the costs of new regulation.

Finally, the Decision is flawed because the Board has failed to provide a coherent statement of what the new policy is.

A. The Board’s Reasons for Reversing Policy Do Not Withstand Scrutiny

The Decision acknowledges, as it must, that the proposed new rules reflect a fundamental change in regulatory policy. The Board claims that it has the discretion to change the rules “because nothing in the plain language of § 11102 [formerly § 11103] required the agency in 1985 to adopt the anticompetitive act framework proposed by AAR and NITL.” Decision at 10. AAR explains above that the statute and the RTP constrain the Board’s discretion and the proposed rules are not consistent with those constraints. But even if the Board were correct that it has broad discretion to change the existing rules, the Board would be required by the APA to provide a rational explanation for its change in regulatory policy and for its adoption of the new approach. Here, the Board never identifies or explains the problem it is seeking to solve. The Board’s perfunctory explanation of the reasons for a fundamental shift in policy falls far short of what is required under the APA.

1. “Dearth of Cases”

The primary reason cited by the Board for its reversal of policy is “[t]he sheer dearth of cases brought under §11102(c) in the three decades since Intramodal Rail Competition, despite continued shipper concerns about competitive options and quality of service.” Decision at 8-9. According to the Board, the lack of litigation activity “suggests that part 1141 and Midtec Paper

Corp. have effectively operated as a bar to relief rather than as a standard under which relief could be granted.” *Id.* The Board’s inference that the regulatory standard is flawed based on the lack of cases is not reasonable and indeed makes no sense.

First, the railroad industry is a mature industry. Railroads and shippers have had decades to establish acceptable commercial arrangements. There have been build-ins and build-outs where economically feasible. There are voluntary reciprocal switching arrangements in locations where they make economic and operational sense. There are many voluntary interline arrangements where the market calls for multi-carrier service. Since the market already provides for multi-carrier access where such access is economically viable, there is no reason to expect many cases seeking to require it.

Second, the lack of cases under the existing standard merely confirms that railroads comply with the law. Under the current rules, carriers cannot engage in anticompetitive conduct without being subject to a claim for forced access. Where rail carriers comply with the law, very few, if any, cases should be expected. Indeed, given the RTP “to minimize the need for Federal regulatory control over the rail transportation system,” 49 U.S.C. § 10101(2), it would be reasonable and desirable that an access remedy like reciprocal switching would be used sparingly. The lack of cases requiring regulatory intervention would suggest that the existing rule is valid because it is acting as a restraint both on carrier misconduct and on unnecessary regulatory intervention, not that it needs to be changed.

The lack of cases could also be explained by the fact that there is no underlying problem that needs to be addressed through the grant of forced access. The Board does not contend that the existing standard is too narrowly drawn to reach a commercial problem that could be remedied with an order of forced switching. Nor does the Board offer any basis for the inference

that the lack of litigation means that the existing standard is too complicated. There are many provisions in the statute that provide remedies that are used only rarely, if at all.³⁶ In fact, the case law that has arisen under the existing rules suggests that it is not the difficulty of establishing grounds for relief that has resulted in few cases but that shippers have not had a valid basis for seeking forced access relief under the existing standard.

For example, in *Midtec*, the shipper was denied an access remedy because it was clear that “Midtec’s claim is really nothing more than a grievance that the C&NW’s rates are too high.” *Midtec*, 857 F.2d at 1508. But forced access is not a remedy for concern over rate levels.³⁷ If shippers have chosen not to pursue access relief because the ICC and the courts have made clear that access remedies are not available for complaints over rate levels, that would not be evidence of a problem with the existing rules. Instead, it would be evidence that the existing rules are doing precisely what they were intended to do, which is to limit access remedies to situations where access is needed to address a market failure and not to allow access to be used simply as an alternative to rate regulation.

Furthermore, the Board presents no evidence of recurring problems of competitive abuse that could justify a change to the existing rules. The Board cites “continued shipper concerns about competitive options and quality of service,” Decision at 9, but most of the alleged

³⁶ See, e.g., 49 U.S.C. § 10742 (failure to provide proper facilities for interchange of traffic); § 11123 (directed service order).

³⁷ The same desire for rate relief was the factor driving other shippers that have sought reciprocal switching remedies. In *Central States*, the shipper sought reciprocal switching because “it could save approximately \$948 in shipping charges per three car unit.” 780 F.2d at 669. In *Vista Chem. Co. v. Atchison T. & S.F. Ry.*, 5 I.C.C.2d 331, 332 (1989), the shipper sought reciprocal switching because the incumbent railroad, Santa Fe, “allegedly uses its market power to maintain a high local rate for traffic moving between Vista’s plant and Santa Fe’s closest interchange points.” The shipper also alleged that Santa Fe was foreclosing a more efficient route, but the shipper submitted no evidence other than mileage on this issue and the ICC found the allegation not to be meritorious.

“concerns” are so vague and general that they cannot be given any weight at all.³⁸ Where there is any concrete description of the actual concerns about a supposed lack of competition, it is clear that the concerns relate to rates. For example, the USDA statement cited by the Board refers to a concern over the supposed lack of “competitive rates provided through a well-functioning market based system.”³⁹ If shippers’ supposed concerns over competition are really concerns over rates, then the lack of forced access litigation can easily be explained by the fact that access is not a remedy for rate-related concerns, and the shippers therefore know that they would lose any rate-focused access case they brought. The lack of litigation is not the result of the supposed inadequacy of the regulatory standard but rather the result of shippers’ realization that they will not succeed under the existing access standards in seeking forced access as a back-door mechanism to reduce rates.

The Board ignores relevant evidence showing that there has been no widespread abuse of market power by railroads that would be expected to lead to claims for forced access. The most comprehensive evidence available on this issue comes from a study that the Board itself commissioned – the Christensen Study. In response to vague and general complaints by shippers about supposed abuses of market power by railroads, Congress directed the GAO to study the issue. The GAO was unable to find evidence of widespread abuse of market power, but recommended that the Board conduct a more extensive empirical analysis to explore the

³⁸ See, e.g., Initial Comments of Consumers United for Rail Equity, *Competition in the Railroad Industry*, STB Ex Parte No. 705, at 12 (filed Apr. 12, 2011)(complaining without detail or support that the current rules have “prevented the free flow of traffic”); Comments of E.I. du Pont de Nemours & Co., *Competition in the Railroad Industry*, STB Ex Parte No. 705, at 12 (filed Apr. 12, 2011) (contending that absence of cases “indicates the excessive nature of these rules”). The Board cannot possibly rely on such insubstantial evidence as the basis for reversing a policy that has been in place for over three decades.

³⁹ Comments of the U.S. Department of Agriculture, EP 711, at 2 (filed Mar. 1, 2013).

shippers' accusations.⁴⁰ The Board commissioned Christensen Associates, an independent research organization, to provide an unbiased analysis.

The Christensen Study concluded that there was no evidence of widespread abuse of market power by railroads.⁴¹ As the Department of Transportation acknowledged, “[t]he Study’s most fundamental conclusions are that railroad deregulation has been a success, that the industry must be able to engage in differential pricing to remain viable, and that overall there is no probative evidence of market power abuse – rate increases in recent years notwithstanding.”⁴² Thus, to the extent there is any probative evidence regarding the reasons for a scarcity of litigation over forced access, the evidence reveals no abuse of market power by railroads that might be expected to lead to such litigation. It is fundamentally irrational for the Board to ignore that evidence and assume instead, based on vague and unsubstantiated claims by shippers, that the lack of litigation results from an inappropriate regulatory standard governing reciprocal switching remedies.

At bottom, the logic of relying on the dearth of cases is mystifying. Commissioner Miller herself states that even under the new rules, she does not expect many cases to be brought. Decision at 33. Thus, the Board itself implicitly acknowledges that an effective rule is not one that results in widespread litigation, but just the opposite. And, the Board already has an effective rule that is fully consistent with Congress’s intent regarding forced access and the RTP directives.

⁴⁰ Government Accountability Office, *Freight Railroads: Industry Health Has Improved, But Concerns About Competition and Capacity Should Be Addressed*, 3-4 (Oct. 2006).

⁴¹ See Laurits R. Christensen Associates, *A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals that Might Enhance Competition: Revised Final Report*, ES-5 (2009) (“Christensen Study”).

⁴² Comments of U.S. Department of Transportation, *Study of Competition in the Freight Railroad Industry*, STB Ex Parte No. 680, at 1 (filed Dec. 19, 2008).

2. Rail Carrier Consolidation

The Board also seeks to justify its reversal of regulatory policy on grounds that rail carrier consolidation since the Staggers Act “likely reduces” the amount of reciprocal switching that occurs: “[T]he consolidation of Class I carriers and the creation of short lines that may have strong ties to a particular Class I likely reduces the chance of naturally occurring reciprocal switching as carriers seek to optimize their own large networks.” Decision at 9. The Board presents no evidence at all to support its speculation. Regulatory policy should not be based on speculation, particularly where the agency proposes to fundamentally change a policy that has been in place for over 30 years.

The facts do not support the Board’s speculation. The Board’s long-standing policy in merger cases has been to preserve competition.⁴³ Moreover, the logic underlying the Board’s speculation that the consolidation of railroads or the growth of short lines with ties to a particular Class I railroad would likely reduce reciprocal switching is highly questionable, and at the very least, totally unexplained. Even in short line spinoffs, the customers on the line being spun off have ended up with exactly the same number of carriers serving them as they had to start with.

Most important, the Board also fails to explain why it believes that a decline in “naturally occurring” switching would show a problem that requires replacing the existing competitive abuse standard. As traffic levels fluctuate, locations that might have been commercially attractive to carriers for reciprocal switching may become less so, which is why changes in switching (even if there were evidence of it) would not suggest there is a problem with the current standards. Moreover, introducing a switch into a movement increases the costs of a

⁴³ See, e.g., *Norfolk Southern Railway Co. – Acquisition and Operation – Certain Rail Lines of the Delaware and Hudson Railway Co.*, Docket No. FD 35873, slip op. at 17-18 (served May 15, 2015). See also *Union Pac. Corp. – Control & Merger – S. Pac. Rail Corp.*, 1 S.T.B. 233, 351 (STB served Aug. 12, 1996).

movement and potentially reduces the efficiency of the movement. Indeed, the ICC's and the Board's approval of rail consolidation in the past has been based in large part on the agency's recognition of the efficiency of single-line movements.⁴⁴

A decline in "naturally occurring" switching would therefore be consistent with the public interest goals that the ICC and the Board specifically sought to achieve in approving past rail consolidations, not evidence of a problem that needs to be addressed through a change in reciprocal switching rules. Even if the Board had a valid reason for concluding that the decline in "naturally occurring" switching is a problem (and it does not), the Board would still need to balance the impact of that problem against the recognized benefits of extended single-line service that have resulted from rail consolidations. Shippers, including shippers served by a single carrier, have benefitted substantially from enhanced single-line service. If the net benefit of increased single-line service outweighs the harm from loss in "naturally occurring" switching, then it would be arbitrary to promote artificial switching at the expense of efficient single-line rail service.

⁴⁴ See, e.g., *Burlington Northern, Inc. – Control and Merger – St. Louis-San Francisco Railway Co.*, 360 I.C.C. 788, 940 (1980) ("One of the major benefits from this merger will be a reduction in the number of currently interlined shipments"); *CSX Corp. – Control – Chessie System, Inc. & Seaboard Coast Line Industries Inc.*, 363 I.C.C. 521, 552-53 (1980) (shift to single-line service would eliminate costs and enhance "speed, reliability, and handling"); *Union Pacific Corp. – Control – Missouri Pacific Corp. & Missouri Pacific Railroad Co.*, 366 I.C.C. 462, 489 (1982) (noting shipper preference for single line service); *Burlington Northern Railroad Co. – Control and Merger – Santa Fe Pacific Corp. & the Atchison, Topeka & Santa Fe Railway Co.*, 10 I.C.C. 2d 661, 741 (1995) (noting the importance of single-line service to shippers due to reduced costs, improved transit times, and the elimination of uncertainty from interchanging traffic); *Union Pacific Corp., Union Pacific Railroad Co. & Missouri Pacific Railroad Co. – Control and Merger – Southern Pacific Rail Corp., et al.*, 1 S.T.B. 233, 381 (noting "unprecedented opportunities for improved routings and new single-line routes"). Union Pacific's opening comments in the original 711 proceeding provide a concise history of the joint efforts undertaken by railroads and regulators to shift to a national rail network with more single-line service. UP 711 Op., at 10-14.

It would also be arbitrary as a matter of law for the Board to seek to expand reciprocal switching as a counterbalance to large railroads' exercise of their congressionally recognized right to favor long hauls. There is a clear statutory policy allowing railroads to favor long-haul movements. *See* 49 U.S.C. § 10705. Since the early 20th century, regulation of rail carriers has been based on the policy that “[t]he road that initiates the freight and starts it on its movement in interstate commerce should not be required . . . to transfer its business from its own road to that of a competitor . . . when the commerce initiated by it can be as promptly and safely transported. . . by its road as by the line of its competitor.” *Chicago, Milwaukee, St. Paul & Pac. R.R. v. U.S.*, 366 U.S. 745, 750-51 (1961) (quoting 45 Cong. Rec. 3475-3476). The Board’s *Bottleneck* decisions recognize that Congress, in the Staggers Act, “retained and strengthened the specific statutory provisions allowing carriers to select their routes and to protect their long-hauls.”

Bottleneck I, 1 S.T.B. at 1067.

3. Improved Financial Health

The Board points to the railroad industry’s improved financial health as an additional justification for a reversal of policy regarding reciprocal switching. The Board cites a recent Senate report noting that ““the industry has evolved and the railroads’ financial viability has drastically improved.”” Decision at 9 (quoting S. Rep. No. 114-52, at 1-2 (2015)). But the Board fails to explain why the railroads’ improved financial health justifies grants of reciprocal switching in the absence of a market failure. The RTP makes the Board responsible for helping carriers attain adequate revenues “to promote a safe and efficient rail transportation system.” 49 U.S.C. § 10101(3). Indeed, Congress recently expanded this responsibility to include a requirement that the Board help carriers attain adequate revenues “for the infrastructure and

investment needed to meet the present and future demand for rail services.”⁴⁵ Any notion that the railroads are healthy enough to withstand a few cuts imposed through forced access would be directly contrary to the RTP mandate of promoting sustained revenue adequacy and minimizing the role of federal regulation in railroads’ commercial activity.

The Board’s focus on the financial condition of the railroad industry as a justification for a change in the reciprocal switching rules is also flawed because the Board failed to consider recent changes in rail markets that have had a negative impact on railroad financial health. And Vice Chairman Miller acknowledged that “the railroads are currently facing changing economic conditions” and “railroads today find themselves in a difficult environment.” Decision at 33. As Commissioner Begeman pointed out, “rail volumes have been down all of 2016, and are currently down nearly six percent from just a year ago.” Decision at 36. But if the Board believes that past improvements in railroad financial health somehow justify a change in the rules (which they do not), the Board should have considered whether possible future changes in financial conditions, based on changing market factors that are known and present today, would counterbalance and perhaps outweigh those improvements.

The recent changes in freight rail markets make it particularly important for the Board to avoid creating new regulatory uncertainties that could impede railroads’ ability to adapt to changing circumstances.⁴⁶ As traditional traffic patterns change, railroads need to have the flexibility to adjust spending and operating practices to new rail industry realities and they must continue to have the incentive to make the investments necessary to meet changing traffic flows

⁴⁵ See, Surface Transportation Board Reauthorization Act of 2015, Pub. L. 114–110, § 16, 129 Stat. 2228, 2238 (2015).

⁴⁶ See, e.g., Association of American Railroads, *Rail Time Indicators*, at 1, 3-4 (Oct. 7, 2016)(reporting lowest year to date railroad carload totals since before 1988 and describing pronounced shift in traffic patterns away from coal and petroleum products).

and changing demand. More aggressive regulation by the Board would be counterproductive because it would increase the costs and risks associated with investment and innovation that will be necessary to meet changing market conditions.

4. Increased Productivity and Technological Advances

The Board provides no rationale for its reliance on “increased productivity and technological advances” in the rail industry as a justification for a reversal of switching policy. Reciprocal switching by its very nature generates inefficiencies. The public interest would not be served by deliberately undermining through forced switching the recent improvements in productivity. In fact, by forcing railroads to surrender line-haul volumes and the associated economies of density, forced switching would prevent railroads from fully utilizing their investments in facilities such as state-of-the-art classification yards and distributed power for manifest trains which have contributed to recent productivity improvements.

B. The Board Failed to Consider the Impact of the Proposed Rules on Railroads and Shippers

In 2012, in response to NITL’s petition, the Board determined that it lacked sufficient information to evaluate the impact that an increase in forced switching would have on industry stakeholders. As the Board explained, it was not able to “fully gauge [the] potential impact” of the NITL proposal.⁴⁷ According to the Board, “additional information is needed before we can determine how to proceed.”⁴⁸ The Board initiated EP 711 to collect information that would allow it to assess the potential impacts of the NITL proposal.

The Board’s decision in EP 711 to seek information on impact is consistent with the Board’s recognition in other areas of the need to assess the impact of proposed regulation before

⁴⁷ EP 711 Notice, at 2.

⁴⁸ *Id.*

taking regulatory action, including the need to conduct cost-benefit analyses to ensure that regulation will advance the public interest. In Ex Parte 712, the Board asked commenters to provide, in connection with a review of existing regulations, “evidentiary support to help the Board analyze the costs and benefits (both quantitative and qualitative) of any proposed changes.”⁴⁹ In the Board’s recent Supplemental NPRM concerning URCS, the Board invoked the cost-benefit principle from the Final Report of the Railroad Accounting Principles Board (RAPB), noting that it would be “guided by the ‘practicality principle’ set forth in the Final Report of the Railroad Accounting Principles Board (RAPB), which states that cost and related information . . . must generate benefits that exceed the costs of providing it.”⁵⁰ The Board’s focus on the potential impact of regulation in these proceedings is consistent with Executive Order 13579, which is addressed to independent agencies and provides that “[t]o the extent permitted by law, [regulatory] decisions should be made only after consideration of their costs and benefits (both quantitative and qualitative).”⁵¹

The Supreme Court recently concluded in *Michigan v. EPA*, 135 S. Ct. 2699 (2015), that an administrative agency acts arbitrarily when it ignores the potential costs of the regulations it proposes to adopt. There, the divided Court agreed that the EPA acted unreasonably when it

⁴⁹ Reducing Regulatory Burden; Retrospective Review Under E.O. 13563, STB Ex Parte No. 712 (served Oct. 12, 2011).

⁵⁰ Review of the General Purpose Costing System, STB Ex Parte No. 431 (Sub-No. 4), at 6 (served Aug. 4, 2016).

⁵¹ Executive Order 13579, Regulation and Independent Regulatory Agencies, 76 Fed. Reg. 41,587 (July 11, 2011).

“refuse[d] to consider cost” when finding that it was “appropriate and necessary” to regulate certain emissions from power plants. 135 S. Ct. at 2704.⁵²

Justice Scalia, writing for the majority, held that an agency is obligated to engage in reasoned decisionmaking, that an agency does so only when the process by which it reaches its result is “logical and rational,” and that the agency must therefore consider “the relevant factors” in reaching its decision. *Id.* at 2706. The agency failed in its obligation when it refused to consider cost: “reasonable regulation ordinarily requires paying attention to the advantages *and* the disadvantages of agency decisions.” *Id.* at 2707. Similarly, Justice Kagan writing for the dissenters, agreed with the majority (“let there be no doubt about this”) that EPA’s regulation would be unreasonable if EPA gave no thought to cost. *Id.* at 2714. Justice Kagan explained that “[c]ost is almost always a relevant – and usually, a highly important – factor in regulation.” *Id.* at 2716. According to Justice Kagan, unless following a contrary congressional directive, an agency acts unreasonably when it ignores costs because that could easily lead to imposing regulations where the costs far exceed the benefits. *Id.* at 2717. Justice Kagan concluded that unless Congress has dictated otherwise, “an agency must take costs into account in some manner before imposing significant regulatory burdens.” *Id.*

AAR’s witness Mark Fagan explains in his supporting verified statement that rational decisionmaking requires an evaluation of benefits and costs before adopting new regulations, particularly where an agency is changing long-standing rules. Mr. Fagan explains that “the rationale for using [a benefit-cost] analysis rests on simple logic. Any policy action undertaken by the government should generate more benefits than costs from a societal perspective.” Fagan

⁵² The core disagreement between the majority and the dissent was not whether the EPA *should have* considered cost, *but whether it did*. All of the justices agreed that the EPA was required to consider the potential cost its regulations would impose.

V.S. at 3. Without a benefit-cost analysis, the agency cannot determine whether the public interest will be advanced by the proposed regulatory action. Mr. Fagan explains why it would be particularly important to consider potential costs in the area of new access regulation given the experience in other countries where more aggressive access regulation has produced net public harm. *Id.* at 5.

Notwithstanding the Board's recognition in EP 711 of the importance of assessing the potential impacts of a change in reciprocal switching rules, the Board failed to address any of the EP 711 impact evidence in its Decision. The Decision summarizes the impact evidence that was developed in EP 711 in a single paragraph, Decision at 8, without any discussion of what the Board learned from it or how that evidence influenced the development of the Board's proposed rules. Indeed, Vice Chairman Miller acknowledged that the Board effectively ignored the comments and testimony developed in EP 711: “[T]oday’s decision could have been made without this additional evidence, which was not heavily relied on in reaching today’s decision.” Decision at 33. As Commissioner Begeman similarly notes in her dissent from the Board’s Decision, Decision at 36, the Board made no effort to gauge the impact of its proposed rule:

We have no idea how the proposed rule would or even could be utilized. We don’t know its potential impact on the shippers that would be granted a reciprocal switch or its potential impact on shippers that wouldn’t benefit from a reciprocal switch. We also don’t know the proposal’s potential impact on the rail carriers. Nor do we know its potential impact on the fluidity of the rail network. *All* of these impacts matter.

Ignoring how a rule will affect the regulated entities and stakeholders who rely upon services offered by the regulated entities is not consistent with reasoned decisionmaking. As Commissioner Begeman pointed out in her dissent from the Decision, “[t]he Department of Transportation estimated that NITL’s proposal would affect 2.1 percent of revenue and 1.3 percent of carloads, figures that are considered significant within the agency.” Decision at 34.

The Board’s proposed rules differ from the rules proposed by NITL that were the subject of EP 711. In fact, prong one on its face is broader than the NITL proposal. But the Board made no effort to determine how much larger the impact of its proposal would be than the original NITL proposal, which, even at the very modest level indicated by DOT, was at a level “considered significant within the agency.” As explained below, the Board also failed to consider other important evidence developed in EP 711 regarding the possible impact of expanded mandatory switching on the industry and failed even to ask the question whether there were any public benefits that might justify the risk of adverse impacts on the rail network from relaxed standards for forced switching.

1. Scope of the Impact of the Proposed Rules

AAR’s witness Michael Baranowski of FTI explains in his supporting verified statement that the potential scope of the Board’s proposed rule is considerably broader than the potential scope of the NITL proposed rule that was the subject of evidence in EP 711. In particular, the Board’s “public interest” test in prong one permits shippers to seek a forced switching order regardless of market conditions, rate levels, or current availability of transportation alternatives. Mr. Baranowski determined that over 75% of non-exempt carloads in the 2014 Waybill Data are originated or terminated within a station that is served by multiple carriers or within 10 miles of an interchange with another rail carrier, thus falling within the universe of carloads potentially subject to forced switching under the Board’s proposed rules. Even under prong two, which limits the availability of forced switching to shippers served by a single carrier with market dominance, Mr. Baranowski shows that the number of carloads potentially subject to forced switching is more than three times the level that the Board considers to be “significant.”

Decision at 34 (Commissioner Begeman noting that a proposal affecting 1.3 percent of carloads is considered “significant” by the agency).⁵³

2. Impact on Network Cost and Efficiency

The Board is clearly aware that an expansion of mandated switching could adversely affect the efficiency of the rail network and the quality of rail service. Reduced efficiency and reduced quality of service impose costs on all rail shippers. The Board itself noted in EP 711 that “we need more precise information about whether increasing the availability of mandatory competitive switching would affect efficiencies or impose costs on the railroads’ network operations.” EP 711 Notice, at 8. The evidence presented in EP 711 showed that an expansion in reciprocal switching could have a substantial adverse impact on the efficiency of rail service and service quality. The evidence presented in that proceeding was compelling and remains unrebutted.

AAR’s witness William Rennicke explained in testimony he presented on behalf of AAR in EP 711 and reiterates in his supporting statement here how post-Staggers railroad service and productivity improvements were linked to rationalization of rail networks and reduction of interchanges, switches, and car handlings.⁵⁴ As Mr. Rennicke explains, “mandated switching would erode the operating cost and efficiency gains made by the rail industry since the 1980s.” Rennicke V.S. at 7. Mr. Rennicke further explains that mandated switching requires an increase in car-handlings that inevitably increases the risk of a service failure, and the risk increases substantially as the complexity of the required switching operations increases, as it would in many terminal areas. *Id.* at 8-12.

⁵³ Mr. Baranowski explains that, due to limitations in the Waybill Data, his estimate of impact under prong 2 is likely understated.

⁵⁴ See Opening Comments of the Association of American Railroads, EP 711, Verified Statement of William J. Rennicke (filed Mar. 1, 2013)(“Rennicke 711 Op. V.S.”).

In EP 711, AAR's member railroads also submitted substantial evidence on the impact of mandated switching on operations. CSX described the many steps railroads have taken to increase operating efficiency since the passage of Staggers, including the extensive use of "run-through" trains in interline movements, blocking of cars into groups that go to the same intermediate yard, serving yard, interchange point, or ultimate destination, focusing efforts on a limited number of high-volume interchange points, and, in general, aggressively managing traffic to ensure that traffic moves across the network as fluidly as possible.⁵⁵ CSX then detailed how mandated switching would disrupt these operations, degrading service and adversely affecting yard operations.⁵⁶ NS and UP submitted extensive comments emphasizing the same points.⁵⁷

Railroad witnesses also testified at the March 26, 2014 hearing in EP 711 that such switching would disrupt service and congest the rail network and they described the vulnerability of the complex U.S. rail network to congestion.⁵⁸ Less than two weeks later, many of the same witnesses addressed in Ex Parte 724 the Board's questions about the serious service issues arising from the weather and the resulting Chicago-based congestion and its effects on rail service in much of the country. At the same hearing, shippers described how much they depended on reliable rail service and many expressed frustration about the lack of rail capacity

⁵⁵ CSX 711 Op., at 27-33.

⁵⁶ *Id.* at 29-37, 43-47.

⁵⁷ NS 711 Op., at 73-79, and attached Verified Statement of Fred M. Ehlers, at 6-9; UP 711 Op., at 22-28.

⁵⁸ See, e.g., Testimony of Cressie Brown, CSX Transportation Inc.'s Vice President of Service Design, Tr. at 13-24; Testimony of Rush Bailey, Norfolk Southern Corp. Assistant Vice President of Service Management, Tr. at 24-33; Testimony of Tom Haley, Union Pacific Assistant Vice President, Networking Capital Planning, Tr. at 33-43.

adequate to deal with 2014 traffic surge compounded by weather-related disruptions.⁵⁹ The Board’s Decision ignores all of this evidence.

For comparable movements, single-line service provided without a switch to another railroad is ordinarily more efficient and cost-effective than service involving a switch or interchange to another railroad. NITL itself admitted as much in its opening comments in the original 711 proceeding. Service involving a mandated switch is less efficient because, “[b]y its definition, it requires a switch to another carrier, a switch that costs both time and money.”⁶⁰ NITL further acknowledged that “at the end of the day the transportation provided by the accessing carrier is unlikely in all cases to be as timely as the service provided by the carrier actually serving the shipper’s facility, because of the need for the switch.”⁶¹ There is nothing new in these observations. As discussed above (*see* footnote 44), the advantages of single-line service were widely recognized and cited as justifications by the ICC and the Board for the consolidations and network rationalizations that occurred post-Staggers.

In addition to an overall degradation in the efficiency and productivity of the rail network, forced switching could produce damaging service failures. In the Decision, the Board expresses concern about the “potential for operational challenges in gateways and terminals that are vital to the fluidity of the rail network.” Decision at 17. Indeed, the Board even cites service crises that are “stark reminders that local congestion can turn quickly into regional and national backlogs, affecting shippers of all commodities.” *Id.*

⁵⁹ See, e.g., *United States Rail Service Issues*, STB Ex Parte No. 724, April 10, 2014 Hearing Tr. at 32, 42-44, 47-49, 52, 92-95, 123-24, 126, 128, 130, 330, 332.

⁶⁰ Opening Submission of the National Industrial Transportation League, EP 711, at 49 (filed Mar. 1, 2013).

⁶¹ *Id.*

The Board's concern over the potential for a widespread decline in service as a result of expanded use of forced switching is well founded, as explained by Mr. Rennicke in EP 711 and in support of AAR's comments here. But instead of confronting the potential degradation in service and efficiency due to mandated switching, the Board offers nothing more than the expectation that its proposed "case-by-case" approach will permit "a greater degree of precision . . . mitigating the chance of operational challenges in a given area." Decision at 17. As Mr. Rennicke explains in his supporting verified statement here, a case-by-case approach to assessing potential network service impacts is wholly inadequate, even if the Board permitted broad evidence on potential network effects outside of the area directly involved in the switching operation.⁶² It is very difficult to predict how inefficiencies or switching-induced delays in one part of the network will affect other areas of the network. Moreover, litigation in individual cases will not permit an evaluation of the cumulative impact of forced switching over time. In complex networks like the railroads, it is next to impossible to determine when the next delay or inefficiency will bring about widespread congestion.

3. Impact on Railroad Revenues and Ability to Invest

The Decision is silent concerning how the proposed rule would affect railroad revenues and the ability and willingness of railroads to continue to invest in infrastructure necessary to meet national transportation goals. The absence of any discussion of the impact of expanded switching orders on rail revenues and investments is particularly troubling given that the Board is required by statute to "make an adequate and continuing effort to assist" carriers in attaining

⁶² The Decision, at 18, suggests that the Board would limit evidence of impact to the specific switching arrangement at issue: "Individual reciprocal switching proceedings would not be an appropriate forum to litigate, for example, the general merits of reciprocal switching as a statutory remedy, the general health of the rail industry, or revenue adequacy. Accordingly, we expect the parties' presentations would be focused on the particular proposed switching arrangement and would not attempt to litigate broad regulatory policies."

adequate revenue levels. 49 U.S.C. § 10704(a)(2). Through this provision, Congress has expressly directed the Board to consider the costs its regulations will impose on railroads. The Board cannot possibly satisfy its duty of assisting railroads in attaining adequate revenues if it has no idea, and has not even considered, what the effect of proposed regulations would be on railroad revenues.

Once again, the Board was keenly aware of the potential for mandated switching to adversely affect railroad revenues when it requested comments in the original EP 711 proceeding. The Board recognized that an expansion of forced switching would reduce or eliminate the ability of the incumbent railroad to engage in differential pricing, which the ICC and the Board have long understood to be critical for railroads to reach and sustain financial viability. The Board was explicit about its concern:

[T]his Board must consider the impact of the proposal on the financial health of the railroad industry. To remain financially sound, carriers must be allowed to engage in “demand-based differential pricing” – that is, in order to recover the substantial joint and common costs of its network, a railroad must be able and permitted to charge different customers different prices based on their different levels of demand for transportation services. If a railroad is unable to recover these joint and common costs, it will not be able to earn adequate revenues.⁶³

Responding to railroad concerns expressed in EP 705 that curtailing differential pricing through reciprocal switching orders would adversely affect railroad revenues, the Board indicated: “That concern merits careful consideration, as we want to ensure the rail industry is able to continue to invest adequately in rail network infrastructure improvements.”⁶⁴ Despite the Board’s recognition of the likely adverse impact on the availability of revenue to make investments, there

⁶³ EP 711 Notice, at 7.

⁶⁴ *Id.*

is no consideration of the revenue impact of the proposed rules in the Board’s Decision. And the Decision does not even mention differential pricing.

The Decision also makes no effort to assess the impact of the proposed rules on the willingness and ability of railroads to make necessary investments.⁶⁵ Again, this is a factor that the Board is bound by statute to consider. The statute includes as part of its definition of “adequate” revenues those revenues sufficient “to support prudent capital outlays” and “permit the raising of needed equity capital.” 49 U.S.C. § 10704(a)(2). More recently, Congress emphasized the point by adding language requiring that adequate revenues must cover “the infrastructure and investment needed to meet the present and future demand for rail services.”⁶⁶

Mandated switching could have serious adverse effects on investment. As Mr. Rennicke explained in his testimony in EP 711, railroad capital investment generally tracks revenues. Therefore, the reduction of revenues that would be produced by expanding mandated switching would inevitably affect the level of capital spending on rail infrastructure.⁶⁷ But perhaps more important, the uncertainty created by giving shippers the ability to seek forced switching without any showing of need would make it difficult to develop and implement an effective investment plan. The possibility that investments would be made available to a railroad’s competitors could create disincentives to invest in areas potentially subject to forced switching even where market

⁶⁵ Inclusion of an “investment” factor under the public interest prong does not satisfy the Board’s obligation to evaluate the extent to which the proposed rule would impair the willingness and ability of railroads to make investments. Given the strictures the Board has placed on the evidence to be considered in individual cases, there might be no forum in which railroads could raise concerns about the broader impact of mandated switching on investment.

⁶⁶ The language was added to section 10704(a)(2) by the Surface Transportation Board Reauthorization Act of 2015, Pub. L. 114–110, § 16, 129 Stat. 2228, 2238 (2015).

⁶⁷ See, e.g., Rennicke 711 Op. V.S., at 73–83. See also the comments of other railroads, including CSX 711 Op., at 47–48; UP 711 Op., at 67–72.

conditions would otherwise justify investments. The Board failed to consider any of these potentially serious impacts of the proposed rules.

4. Failure to Consider Reliance Interests

As the Supreme Court recently stated, when an agency reverses an existing rule, it must “be cognizant that long standing policies may have ‘engendered serious reliance interests that must be taken into account.’” *Encino*, 136 S. Ct. at 2126 (quoting *Fox*, 556 U.S. at 515). Railroads’ reliance on the Board’s existing access standards in configuring their networks and targeting their capital investments should be readily apparent to the Board. Many of today’s railroads made substantial investments in mergers in reliance on the basic configuration of the networks. They enhanced the value of these networks through post-merger investments that increased their ability to handle traffic efficiently. Given the CARs, there was no reason to expect that the Board would restructure these networks through forced switching orders, stranding the investments the railroads had made. There is plentiful evidence of railroad reliance. UP, for example, explained in its opening comments in EP 711 how it went to great lengths to reconfigure its network to provide efficient, single-line service.⁶⁸ Similarly, when approving the Conrail transaction, the Board recognized that the new opportunities for single-line service created by the transaction would “spur both CSX and NS to make substantial new investments in improving rail infrastructure.”⁶⁹ The Board failed even to consider railroad reliance on the CARs.

⁶⁸ See UP EP 711 Op., at 14-19. See also Comments of Union Pacific Railroad Co., *Competition in the Railroad Industry*, STB Ex Parte No. 705, Verified Statement of Lance M. Fritz (filed Apr. 12, 2011).

⁶⁹ *CSX Corp. and CSX Transp., Inc., Norfolk Southern Corp. and Norfolk Southern Ry. Co. – Control and Operating Leases/Agreements – Conrail Inc. and Consolidated Rail Corp.*, 3 S.T.B. 196, 249 (1998) (emphasis added).

5. Lack of Public Benefits

In addition to the Board's failure to estimate the magnitude of costs that would result from the proposed rules, the Board failed to consider whether there would be any countervailing public benefits. Mark Fagan explains in his supporting verified statement that the identification of potential public benefits from new regulation is key to ensuring rational regulatory policy. Particularly where costs could result from new regulation, it is critical not just to estimate the magnitude of those costs but to ensure that there are benefits to the public that would outweigh them.

To determine whether there are benefits to the public from a proposed regulation, it is first necessary to identify the problem sought to be addressed. Mr. Fagan explains that the fundamental flaw in the Board's Decision here is the failure to identify the problem to be solved with expanded forced switching, which makes it impossible to determine whether *any* public benefits will result from the proposed rules, let alone benefits that would outweigh the potential costs of more intrusive regulation. As Mr. Fagan explains, "there is no demonstration of the problem that has arisen in the intervening years, no discussion of the range of possible solutions to that problem or why mandated switching is the best of the possible solutions. In the absence of a clear problem statement, there is no basis for a reasoned analysis." Fagan V.S. at 2.

C. The Board's Failure to Articulate any Coherent Policy Underlying the Proposed Rules Renders Them Vague and Violates the APA

The Board's proposal to examine individual switching requests on a case-by-case basis is not a substitute for determining in advance of the proposed rule change whether the new rules will advance the public interest. In cases brought under prong two, the proposed rules do not even provide for an assessment of the public interest. Prong one calls for evidence relating to public interest considerations, but the Board provides no guidance on how it will assess the

evidence. The lack of any coherent policy underlying the proposed rules renders the rules impermissibly vague and inadequate under the APA.

Moreover, the Board fails to explain why it has chosen to eschew any regulatory framework for reciprocal switching orders and instead plans to rely on case-by-case litigation under broad and non-specific statutory language. The APA requires a reasoned and well explained justification for a change in regulatory policy. As the Supreme Court recently explained, “[o]ne of the basic procedural requirements of administrative rulemaking is that an agency must give adequate reasons for its decisions.” *Encino*, 136 S. Ct. at 2125. But the Board fails to provide any explanation of why it is appropriate to leave the industry without any guidance as to how reciprocal switching requests will be addressed in the future.⁷⁰

Commissioner Begeman’s observations are directly on point here: “The question of impact, and the burden of analyzing that impact, cannot simply be avoided by promising to adjust or improvise other or new results on the fly.”⁷¹ The Board has not presented a clear vision of what it seeks to accomplish with the new rules or how it will avoid the problems and potential harms that could result from a change in the rules. When an agency does away with a regulatory framework that has existed for decades, it is imperative that the agency have a defined goal and a clear set of guidelines as to future implementation of its regulatory responsibility. The Board’s reliance on case-by-case litigation is an excuse to avoid setting a clear regulatory agenda and it renders the Board’s proposed rules invalid.

⁷⁰ In contrast, when the ICC chose, in 1983, to rely on case-by-case litigation of reciprocal switching rather than adopt a regulatory framework, the ICC expressly justified its regulatory approach on grounds that there was no evidence of a problem in rail markets that would lead to significant litigation. *Standards for Intramodal Rail Competition*, ICC Ex Parte No. 445 slip op. at 8-10 (served July 7, 1983). Here, the Board appears to want to encourage the use of forced switching, which makes it all the more irrational to leave the rail industry and its users without a regulatory framework.

⁷¹ Decision, at 35 n.31.

In many other ways, the proposed rules are impermissibly vague, as briefly outlined below:

Definition of Reciprocal Switching: The Board has confined the new rules to reciprocal switching, but it has not attempted to define the limits of reciprocal switching or explain how the Board will distinguish or address requests for forced switching that are really attempts to prescribe alternative through routes. Through route prescriptions remain subject to the existing competitive abuse standard.

Eligible Traffic/Facilities: The second prong of the proposed rule requires a showing of market dominance, which must be made with respect to individual traffic movements between specified origins and destinations. Thus, it appears that the Board considers switching orders under the second prong to be traffic-specific. But the first prong contains no express provision limiting the use of switching to particular movements, raising the question whether the Board intends for switching remedies under the first prong to cover all movements to or from a particular facility, and if so, what the rationale would be for imposing such a broad switching order.

TIH Traffic: The Decision recognizes that the safety of a forced switch would be relevant in determining whether to grant a switching request but the proposed rules do not indicate how the safety risks associated with the increased handling of TIH through forced switching will be evaluated or if TIH movements will be excluded because of the risks of subjecting those movements to increased handling.

Facilities Owned or Financed by Railroads: The proposed rules cover switching arrangements involving “the facilities of the shipper(s) and/or receiver(s) for whom such switching is sought.” The language of the proposed rules suggests that the rule is intended to

cover only facilities owned by shippers, but it is unclear whether a shipper could also seek a switching order from facilities that are owned by or have been financed by the railroad being ordered to provide a switch.

Labor Protection Costs: Railroads ordered to provide switching service could experience significant disruption in work assignments within and across yards, with railroads needing to increase work in some yards, perhaps over short or indeterminate time periods, and cutting back on job assignments in other yards. The proposed rules could also result in changed volumes of line-haul traffic, thereby affecting crew requirements on line-haul movements. The proposed rules are silent on the responsibility for any required labor protection costs.

Duration of Relief: The Board chose not to specify a limit on the duration of relief, choosing instead to leave access relief in place “as long as the criteria for each prong are met.” Decision at note 21. This approach is inconsistent with the Board’s primary remedial power under the statute to address unreasonable rail rates. There are defined time limits on rate prescriptions based on the recognition that regulatory interference is supposed to be limited in scope and time. Particularly since shippers appear to view forced switching as an alternative to rate regulation, there is no justification for an open-ended switching remedy that would remain in place indefinitely.

Further, given the broad and ambiguous nature of the criteria that might be considered under prong one, the Board’s approach could leave switching orders in place indefinitely. A railroad seeking removal of a switching order would effectively have to mount an entire “public interest” case, which is the burden of the party seeking regulatory intervention. And, since the second prong of the proposed rules requires only a showing of market dominance, a forced switching order would effectively restructure the facility from a single-served facility to a facility

served by multiple railroads. As noted previously, it is clear that access remedies were not intended to be a vehicle to restructure the rail industry.

V. SPECIFIC ISSUES ON WHICH THE BOARD HAS SOUGHT COMMENT

For the reasons discussed above, AAR does not believe that the Board has justified any change in the existing CARs. Subject to this caveat, AAR provides the following comments on specific aspects of the Board's proposed rules in response to the Board's request for comments on these issues.

A. Reasonable Distance

Under both prongs of the proposed rules, the shipper seeking a reciprocal switching order must show that "there is or can be a working interchange between the Class I carrier servicing the party seeking switching and another Class I rail carrier within a reasonable distance of the facilities of the party seeking switching." The Board specifically invited parties to comment on the "reasonable distance" standard "in an effort to provide guidelines to parties that may seek switching under the proposed regulations." Decision at 21.

There is no basis in the statute for using the "reasonable distance" concept to expand reciprocal switching beyond terminal areas. In the terminal access context, section 11102(a) provides that terminal access rights may include access to "main-line tracks for a reasonable distance outside of a terminal." Section 11102(c), which authorizes the Board to order reciprocal switching, does not contain any "reasonable distance" language or other language suggesting that forced switching could be used to create what is in effect a forced interchange outside a terminal area.

Limiting reciprocal switching to terminal areas would also be consistent with the historical understanding of the term "reciprocal switching." The term "reciprocal switching" was a term of art in 1980, when Congress added the predecessor to § 11102 to the statute, that

spoke about switching within a terminal area. *See, e.g., Switching Charges and Absorption Thereof at Shreveport, LA*, 339 I.C.C. 65, 70 (1971). “It has long been a common practice among the railroads to participate at commonly served terminal areas in what is called reciprocal switching. In practice this means that one line-haul carrier operating within the terminal area will act only as a switching carrier in placing cars at industries on its own trackage for loading or unloading, as an incident of the line-haul movement of those cars over another carrier whose trackage in that terminal area does not extend to the serviced industry.” The Seventh Circuit recognized that the language of the provision referring to “reciprocal switching,” had significance in determining the scope of the new remedy: “Reciprocal switching occurs at stations or terminals served by more than one carrier. A common station or terminal area is, therefore, a prerequisite for such switching.” *Central States*, 780 F.2d at 675. The ICC, in *Midtec II* noted that “[i]t is not clear whether reciprocal switching can be required outside a terminal area.” 3 I.C.C. 2d at 178 n.17.

Restricting reciprocal switching orders to terminals would also distinguish them from requests for prescription of through routes under section 10705. Forcing a carrier to establish an alternative through route must follow the directives Congress laid out in section 10705, which are expressly designed to protect the long haul. An order to perform any switching services outside a terminal area should be required to satisfy the express terms of 10705(2)(b). It would not be appropriate to allow shippers to avoid the statutory requirements of section 10705 by simply calling such an interchange a “switch.”

B. Compensation

The Board is supposed to play a limited role in setting compensation for switching agreements. Congress directed the Board to set compensation for a forced reciprocal switching agreement only “if the rail carriers cannot agree upon such conditions and compensation within a

reasonable period of time.” 49 U.S.C. § 11102(c)(1). Although the agency’s role is limited, the Board has acknowledged the “importance of the issue” of compensation because of “the impact of the [forced access] proposal on the financial health of the railroad industry.” EP 711 Notice, at 7. The Board’s reasoning was sound:

To remain financially sound, carriers must be allowed to engage in “demand-based differential pricing” – that is, in order to recover the substantial joint and common costs *of its network*, a railroad must be able and permitted to charge different customers different prices based on their different levels of demand for transportation services. If a railroad is unable to recover these joint and common costs, it will not be able to earn adequate revenues.

Id. (emphasis added).

The Board asks for comments on two alternative access pricing methodologies, but neither satisfies the recognized need to preserve railroad differential pricing. The first methodology is based on a fully-allocated cost approach set out in *Switching Charges & Absorption Thereof at Shreveport, LA*, 339 I.C.C. 65 (1971), which the ICC already rejected as “arbitrary and economically unsound.” *Intramodal Rail Competition*, 1 I.C.C.2d at 835. The second approach, based on the agency’s SSW methodology, has generally been restricted to circumstances “where trackage rights have been imposed to remedy anticompetitive effects of a consolidation.” *Id.* Those circumstances are not relevant here.

Any consideration of compensation must be based on recognition of the central role of differential pricing in rail markets and the statutory directive for the agency to promote rail carriers’ revenue adequacy and their ability to make investments necessary to meet demand. The ICC and the Board “have consistently recognized that differential pricing is crucial to the viability of the industry.” *Intramodal Rail Competition – Proportional Rates*, 1990 MCC LEXIS 70 at * 7-8 (April 17, 1990). The agency has explained over and over why this is so:

We start with the basic principle that rail carriers must differentially price their services. As explained more fully in *Coal Rate Guidelines*, there is a large amount of common (unattributable) costs inherent in the railroad industry cost structure, and the mix of competitive and captive traffic handled by railroads prevents a carrier from being able to recover a pro rata portion of those common costs from all traffic. Therefore, railroads must be able to price their services differentially so as to recover a greater percentage of their common costs from traffic with a greater degree of captivity (i.e., less demand elasticity).

Amstar Corp. v. ATSF, 1995 ICC LEXIS 256 at * 12-13 (Sept. 15, 1995) (internal citation omitted). As such, “the core regulatory principle in the rail industry is that a railroad must be able to engage in some form of demand-based differential pricing to have the opportunity to earn adequate revenues.” *See Major Issues in Rail Rate Cases*, STB Ex Parte No. 657 (Sub-No. 1), at 20 (served Oct. 30, 2006). The federal courts agree.⁷²

Any mandatory compensation scheme that focuses only on the costs of switching, including the required reasonable return on the terminal facilities, misses the big picture. Privately owned and maintained U.S. freight railroads move the economy and drive commerce by safely, efficiently, and affordably connecting businesses, goods, and people with an expansive rail network. These networks are the backbone of the nation’s economy and an enabler to many other industries. The rail industry proudly serves its role as the engine of economic growth by

⁷² See, e.g., *Union Pacific R.R. Co. v. United States*, 637 F.2d 764, 767, n.2 (10th Cir. 1981) (Pursuant to the 4-R Act, “the railroads may propose a rate which includes a price increment over and above fully allocated costs in order to assist them [sic.] attain adequate revenue levels. This method of ‘differential pricing’ has been judicially approved as a valid means of achieving the ultimate goal of the 4 R Act which is to financially regenerate the nation’s railroads.”); *Mr. Sprout, Inc. v. United States*, 8 F.3d 118, 124-125 (2d Cir. 1983) (explaining that “Congress in the Staggers Act recognized that railroads must engage in ‘differential pricing.’”); *MidAmerican Energy Co. v. STB*, 169 F.3d 1099, 1106 (8th Cir. 1999) (explaining that the “Board has recognized that an important part of achieving revenue adequacy is differential pricing.”); *Union Pacific R.R. Co. v. STB*, 628 F.3d 597, 600 (D.C. Cir. 2010) (by “statute, rail carriers are authorized to engage in a certain amount of demand-based differential pricing in order to earn ‘adequate revenues’”).

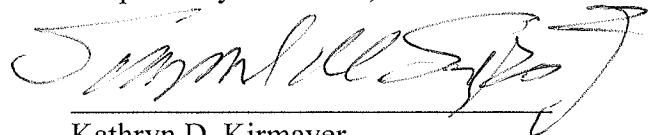
making massive private investment into these massive networks – more than \$600 billion in the past 35 years, including \$30 billion in 2015 alone. To remain financially sound, to continue to make these extraordinary levels of private investment, and to keep on driving economic growth in our economy, the Board must protect railroads’ ability to engage in “demand-based differential pricing” to recover the substantial joint and common costs *of their networks*.

The Board must conform any compensation scheme to the core regulatory principle demanded by Congress since 1980. Forced access cannot be used as a regulatory cudgel to beat down the proper and lawful exercise of demand-based differential pricing that is “crucial to the viability of the industry.” *Intramodal Rail Competition – Proportional Rates*, 1990 MCC LEXIS 70 at * 7-8 (April 17, 1990).

VI. Conclusion

The Board should repudiate its proposed rules and retain its existing competitive abuse standard. That standard clearly comports with the legal requirement that a shipper show need to justify an order of forced switching. The Board has identified no substantive defect with the existing competitive abuse standard. Nor did the Board provide any rational justification for replacing the existing rule. Replacing a valid standard with one that would allow some shippers to obtain forced switching on demand and that could fundamentally restructure the rail industry is contrary to law. A desire for two carrier service to artificially reduce rates does not rise to the level of a need for the regulator to mandate a switch. The DC Circuit *Midtec* decision is clear on this point: “If the Commission were authorized . . . to prescribe reciprocal switching . . . whenever such an order could enhance competition between rail carriers, it could radically restructure the railroad industry. We have not found even the slightest indication that Congress intended the Commission in this way to conform the industry more closely to a model of perfect competition.” 857 F.2d at 1507.

Respectfully submitted,



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October 26, 2016

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Ex Parte No. 711 (Sub-No.1)

Reciprocal Switching

**Verified Statement
of**

Michael R. Baranowski

October 26, 2016

I. INTRODUCTION

I am Michael R. Baranowski of FTI Consulting, Inc. I am a Senior Managing Director and head of FTI Consulting's Network Industries Strategies (NIS) practice. I have been asked by the Association of American Railroads (AAR) to review the Surface Transportation Board's ("Board") July 27, 2016 decision in Ex Parte 711 (Sub-No. 1) Petition for Rulemaking to Adopt Revised Competitive Switching Rules and to estimate the number of 2014 carloads potentially subject to the reach of the new proposals outlined therein.

II. PROPOSED CHANGE TO RECIPROCAL SWITCHING REGULATION

The Board proposes new regulations in Docket No. EP 711 (Sub-No. 1) that would allow a party to seek a reciprocal switching prescription that, according to the Board, is either practicable and in the public interest or necessary to provide competitive rail service. Specifically, the Board is proposing a two-pronged approach that includes a practicable and in the public interest prong and a necessary to provide competitive service prong. For the practicable and in the public interest prong, the Board proposes three eligibility criteria that shippers must satisfy to obtain a switching prescription: (1) that the facilities of the shipper(s) and/or receiver(s) for whom such switching is sought are served by Class I rail carrier(s); (2) that there is or can be a working interchange between the Class I carrier servicing the party seeking switching and another Class I rail carrier within a reasonable distance of the facilities of the party seeking switching; and (3) that the potential benefits from the proposed switching arrangement outweigh the potential detriments. It also proposes three criteria that shippers must satisfy to show that switching is necessary to provide competitive rail service: (1) that the facilities of the shipper(s) and/or receiver(s) for whom such switching is sought are served by a single Class I rail carrier; (2) intermodal and intramodal competition is not effective with respect to the

movements of the shipper(s) and/or receiver(s) for whom switching is sought; and (3) there is or can be a working interchange between the Class I carrier servicing the party seeking switching and another Class I rail carrier within a reasonable distance of the facilities of the party seeking switching.

III. OVERVIEW OF ANALYSIS

A. Data Sources

For this proceeding the Board has made available to AAR the 2014 Carload Waybill Sample (CWS) data. The CWS is a stratified sample of carload waybills compiled by the Board for all U.S. rail traffic submitted by those rail carriers terminating 4,500 or more revenue carloads annually. The file contains some details of each railroad shipment including the origin, destination, commodity, revenue, identification of railroads participating in each shipment, the junction points between railroads for interline moves, miles, railroad car type and a host of other shipment related data. It is not possible, due to data limitations, to carry out a shipper-specific or terminal-specific analysis of the potential impact of the Board's proposals using the 2014 CWS. This is because the CWS does not associate movement data with specific shippers or otherwise disclose the identity of specific shippers. Therefore, while the effects of the Board's proposal will occur at the specific shipper level, the analysis using the CWS must be carried out at the reported station location level.

In addition, although the CWS identifies stations or junctions at which traffic was interchanged during 2014, it does not provide a complete list of working interchanges or pinpoint their geographic locations. Because the CWS did not contain this data, my analysis relied on location information in the Centralized Station Master ("CSM") and Junction Interchange File ("JI") to identify the relative proximity of junctions to stations reported in the CWS. The CSM is a geographic location file which contains data about rail and motor carrier points for North

America and international areas. This file is primarily used by railroads to help plan freight movements from origin to destination in an efficient and timely manner. CSM rail station records are uniquely identified by combination of the Standard Carrier Alpha Code (SCAC) field and Freight Station Accounting Code (FSAC) field. They can also be identified uniquely by their respective Standard Point Location Code (SPLC). The CSM contains geographic latitude and longitude coordinates for corresponding locations identified in the CWS.

The JI file is the basis for identification of inter-carrier activities. This file contains records for each junction that identify the reporting marks of the railroad carriers that interchange at that junction. It also describes physical locations and defines the types of activities which occur at that location including boundary crossings, per diem relief points, rail to rubber interchange, shop interchange, water interchange and traditional rail to rail interchange.

There are limitations within the available datasets that affect my estimates of the number of carloads potentially affected under the two prongs of the Board's proposal. As mentioned above, the CWS does not identify individual shippers. As such, it is not possible to use it to identify particular shippers located at multi-served stations that might today be closed to reciprocal switching or may not be otherwise accessible to all of the carriers serving a particular station. My analysis does not consider any carloads originated or terminated at multi-served stations to be served by only one railroad and therefore my estimate understates the potential carloads eligible under the competitive access prong for shippers that are open only to one rail carrier at stations that are served by more than one railroad. It is also not possible from the CWS to identify specific shippers whose facilities are currently accessed by more than one carrier that might not have an incentive to seek a switching prescription even if they are eligible to do so. As

a result, my analysis may overstate the number of shippers potentially affected under the Board's public interest prong.

B. Analysis Details

For the analysis, I started with the confidential, unmasked, version of the 2014 CWS provided by the Board to identify SPLCs served in 2014 by single rail carriers. I removed all intermodal shipments since intermodal rail traffic originates and terminates at facilities owned by railroads rather than at shipper facilities. I also removed other exempt traffic that is not currently subject to Board jurisdiction. In addition to the CWS, I relied on the CSM and JI files to identify active railroad junctions and publicly-available information from railroad websites regarding the location and types of various rail-related facilities, such as automotive terminals, coal wharves, and iron ore wharves. These steps produced the starting point for my analysis of the potential carloads affected under Prong 1 – the public interest prong and Prong 2 – the competitive rail service prong.

1. Public Interest Prong

For my analysis of the number of carloads potentially affected by the Board's public interest prong, I identified all of the non-exempt Class I railroad carloads originating or terminating at stations served by more than one Class I railroad and at single-served stations within three distinct rail mileage bands from junctions. The mileage bands I used are 10, 15 and 30 rail miles from the nearest junction. Table 1 below summarizes my results.

Table 1
Summary of 2014 Non-Exempt Carloads Potentially Affected by Board's Prong 1 Proposal

| | Distance to Junction | | |
|--|----------------------|----------------------|----------------------|
| | Within 10-Rail Miles | Within 15-Rail Miles | Within 30-Rail Miles |
| Potentially Affected Non-Exempt Class I Carloads Under Public Interest Prong | 11,344,308 | 11,764,416 | 12,548,942 |
| Percent of All Class I Carloads | 55.8% | 57.9% | 61.8% |
| Percent of Non-Exempt Class I Carloads | 75.7% | 78.5% | 83.7% |

As Table 1 shows, approximately 76 percent of non-exempt carloads are potentially affected by the Board's Prong 1 proposal at the 10 mile mileage threshold.

2. Competitive Access Prong

For my analysis of the potential number of carloads affected by the Board's competitive rail service prong, I identified all of the non-exempt Class I railroad carloads originating or terminating at single-served stations with revenue to variable cost ratios at or above 180 percent within the same three distinct rail mileage bands from junctions. Table 2 below summarizes my results.

Table 2
Summary of 2014 Non-Exempt Carloads Potentially Affected by Board's Prong 2 Proposal

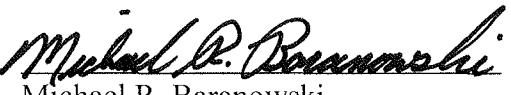
| | Distance to Junction | | |
|---|----------------------|----------------------|----------------------|
| | Within 10-Rail Miles | Within 15-Rail Miles | Within 30-Rail Miles |
| Potentially Affected Non-Exempt Class I Carloads Under Competitive Access Prong | 992,435 | 1,477,304 | 2,454,418 |
| Percent of All Class I Carloads | 4.9% | 7.3% | 12.1% |
| Percent of Non-Exempt Class I Carloads | 6.6% | 9.9% | 16.4% |

As Table 2 shows, almost seven percent of non-exempt carloads are potentially affected by the Board's Prong 2 proposal at the 10 mile mileage threshold.

VERIFICATION

I, Michael R. Baranowski, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed: October 26, 2016


Michael R. Baranowski

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Ex Parte No. 711 (Sub-No.1)

Reciprocal Switching

**Verified Statement
of**

Mark Fagan

October 26, 2016

VERIFIED STATEMENT OF MARK FAGAN

1. Introduction

I am Mark Fagan. I am a Lecturer in Public Policy at Harvard Kennedy School, Harvard University, where I teach courses on management, policy and advocacy. Previously I was a Senior Fellow at the Center for Business and Government at Harvard Kennedy School where I conducted research on the impacts of open access on the railroad industry. I am also a founding partner of Norbridge, Inc., a management consulting firm with distinctive expertise in transportation and logistics.

My research at Harvard University includes examining the impact of regulation on markets. A recent focus has been the impact of open access regulation on public value creation. In prior research, I wrote about the impact of deregulation in the railroad industry, including a paper published by *Transportation* examining the impact of regulatory differences on rail freight share between the United States and the European Union. I have also published research results on the risk externality of hazardous materials transportation. I have also examined the impact of electricity restructuring in the United States. The electricity work has been published in the *Electricity Journal* and cited in the *New York Times*.

I have worked with shippers and carriers as a management consultant for more than 30 years. As Vice President of Mercer Management Consulting (now operating as Oliver Wyman), I helped clients in a range of industries improve their supply chain efficiency and cost effectiveness. During my time at Mercer, I developed a distinctive expertise in sourcing strategy, helping clients negotiate lower total lifecycle costs with suppliers, including transportation providers. Since co-founding Norbridge, Inc., I have worked with Class I and shortline railroads in the United States and a major freight railroad in Australia to enhance their operational and commercial performance.

I submitted a verified statement to the Surface Transportation Board (STB) in Ex Parte No. 711, *Petition for Rulemaking to Adopt Revised Competitive Switching Rules*, on behalf of the Association of American Railroads. That submission highlighted the need for a benefit-cost analysis to determine if the mandated switching proposal under consideration in that proceeding was in the public interest. The statement also identified the concern that mandated switching would likely lead to a wealth transfer from railroads to shippers, not a gain in social welfare.¹ The basis for these conclusions was research I conducted evaluating the impacts of Australia's mandated access regulation.

¹ The term “public value creation” refers to an actual increase in economic value rather than a simple transfer of wealth between entities. Thus, to create public value, competition must lead to sustained competition-driven efficiencies, cost reductions, service improvements, investments, innovations and/or expansion of rail traffic attracted from more expensive transportation modes, not simply reduced railroad margins.

The purpose of this submission is to highlight four critical flaws in the STB’s Notice of Proposed Rulemaking (NPR)² in this proceeding regarding mandated switching. First, the NPR fails to clearly define the problem that the rule is intended to solve. Without a clear articulation of the problem, it is impossible to create effective policy. Second, the NPR lacks a macro-level benefit-cost analysis to support mandated switching. Sound policy making requires a rigorous evaluation, especially of a change in longstanding policy to ensure that a change in policy is necessary and that the policy change will produce net public benefits. Third, the Board’s proposed methodology for evaluating mandated switching on a case-by-case basis is not a substitute for macro-level benefit-cost analysis. The railroad system is a network; failure to look at mandated switching in total rather than case-by-case can lead to suboptimal decisions. Finally, the STB does not learn from failings of mandated access in Australia, where costs of mandated access outweighed public benefits.

The STB’s mission is to promote reliable service, reasonable rates, and a financially healthy railroad industry within the confines of its statutory power, court interpretations of that power, the structure of the industry, the economic foundations of scale, scope, and density and differential pricing, and the need for a network industry to cover its fixed and common costs. Paraphrasing Vice Chairman Miller, the goal of the STB in this rule making proceeding is to define a proposal for reciprocal switching that satisfies this mission.³ In my opinion, however, the proposed rules fail to achieve this goal as outlined above and endanger the financial and operational future for rail transport in the United States. These failures are detailed below.

2. Lack of Clear Problem Definition

The STB acknowledges that its proposed rule represents a significant change in decades of policy on reciprocal switching and that such a dramatic shift in statutory interpretation must be based on “reasoned analysis.” Yet it never offers such an analysis – there is no demonstration of the problem that has arisen in the intervening years, no discussion of the range of possible solutions to that problem or why mandated switching is the best of the possible solutions. In the absence of a clear problem statement, there is no basis for a reasoned analysis – and the Board never provides such an analysis.

The STB seems to be acting for the sake of acting. What aspect of the STB’s mission is not being fulfilled under the current and long-standing reciprocal switching rules? The Board already has the authority to require switching “if the agency determines it ‘is necessary to remedy or prevent an act that is contrary to the competition policies of 49 U.S.C. 10101 or is otherwise anticompetitive.’”⁴ Moreover, the Board has authority to use its rate reasonableness process to ensure rates reflect competitive conditions. Why is change needed? This question is not answered in the NPR. In the absence of a clearly articulated problem, it is impossible know that the proposed policy will address a valid

² *Reciprocal Switching*, STB Ex Parte No. 711 (Sub-No. 1)(served July 27, 2016).

³ NPR at 31.

⁴ NPR at 3.

concern that needs to be addressed. Moreover, without problem clarity it is impossible to analyze the range of possible solutions to that problem or why mandated switching is the best of the possible solutions. Again, the NPR lacks such an analysis.

3. Lack of Benefit-Cost Analysis

Benefit-Cost Analysis (BCA) has been an important tool for developing public policies for more than 40 years. From President Nixon to Presidents Ford, Carter, Clinton and Obama, BCA has been a core principle of rulemaking for Cabinet departments and independent agencies codified thorough a mix of legislation and Executive Orders.⁵

The rationale for using BCA rests on simple logic. Any policy action undertaken by the government should generate more benefits than costs from a societal perspective. While it is not always easy to calculate benefits and costs, a variety of agencies from the Environmental Protection Agency to the Securities and Exchange Commission to the Federal Communications Commission, have defined approaches to BCA.⁶ These approaches often reflect not only quantitative but also qualitative factors.

Complementing the logic for BCA is the associated benefit of forcing policy makers to establish a rigorous thought process for defining and evaluating the proposed policy. This begins with an articulation of what is to be accomplished – what is the problem to be solved? As I noted above, this critical step for ensuring appropriate regulatory action is missing here. The BCA continues with an enumeration of the policy evaluation criteria – how will we know the policy is a success? A detailed specification of policy options is defined. Finally, the options are evaluated and policy is set.

Over the span of four decades, the process for conducting BCA has been formalized with guiding principles and structured methodologies. A good example is OMB Circular A-4.⁷ The circular highlights the need to (1) clearly define the need for the proposed action; (2) demonstrate that the agency examined relevant alternatives; and (3) evaluate the benefits and costs of the proposed action.⁸

The STB itself calls for a BCA, although not by that name in the NPR: “...the Board must appropriately balance the competing policy considerations in proposing new regulations.”⁹ BCA is a routinely used methodology to meet the Board’s own standard. The Board references the need for a reasoned analysis and to appropriately balance competing policy considerations in its EP 711 Decision. However, the Board fails to offer an approach for achieving these objectives. Specifically, the STB fails to provide a

⁵ Cost-Benefit and Other Analysis Requirements in the Rulemaking Process, Maeve Carey, Congressional Research Service, 7-5700, December 9, 2014 (“Cost-Benefit Requirements”).

⁶ *Id.*

⁷ OMB Circular A-4, “Regulatory Analysis,” September 17, 2003.

⁸ See Cost-Benefit Requirements, note 5 above.

⁹ NPR at 13.

concrete and measureable objective for the policy change, at least in part because it has failed to specifically identify the underlying problem. Moreover, the STB does not consider a range of policy options to achieve the objective. Finally, the order fails to include a BCA of the options. In the absence of a rigorous application of the BCA methodology used by numerous government agencies and regulators, the STB is “flying blind” in its proposed mandated switching rule.

4. Case-by-Case Litigation Is Not a Substitute for Macro-Level BCA

The Board proposes a case-by-case process, after the rules are adopted, as its means to “weigh and balance the various rail transportation policy factors...”¹⁰ Case-by-case sounds appealing in as much as it recognizes that the best remedies often depend on the specific circumstances. However, the case-by-case approach is not a substitute for BCA when establishing macro-level policy such as mandated switching. Policy making requires analysis of proposed actions and their impacts on social welfare before an idea is adopted as a policy. Macro-level BCA would enable the STB to understand its proposed rules’ impacts prior to their adoption. Such insight would increase the likelihood the right rule is enacted.

Once the right macro-level policy is determined based on BCA, a case-by-case approach might be appropriate for implementing a rule. However, the case-by-case methodology in lieu of BCA is especially troubling considering Prong 2 of the NPR. Here there will be no BCA, not even a consideration of the case-by-case issues that the Board is substituting for a macro-level BCA under Prong 1. The second “necessary to provide competitive rail service” prong provides for no weighing of costs and benefits. Prong 2 requires only that the STB find that intermodal and intramodal competition is not effective for the shipments in question. This criterion has been developed in the STB’s rate reasonableness proceedings. In the name of reducing the burden of the rate reasonableness proceedings, geographic and product competition have been excluded despite the important leverage they provide shippers in many situations.

The case-by-case approach is not a substitute for BCA even in the case of Prong 1. First, the STB must show that compelled access generates benefits greater than costs to justify the mandate. The BCA framework enables this determination. Second, the Board has stated that it does not even intend to consider in case-by-case litigation the broad and important policy objectives that would be the subject of a macro-level BCA, like Congress’s desire to minimize regulatory intrusion into rail markets.¹¹ Third, even where the Board looks at a case and determines that mandating reciprocal switching is justified, the cumulative impact of many such rulings could negatively impact service quality to shippers and efficiency of the rail system as a whole. Railroads are networks. Small

¹⁰ NPR at 15.

¹¹ NPR at 18 (“we expect the parties’ presentations would be focused on the particular proposed switching arrangement and would not attempt to litigate broad regulatory policies.”)

impacts in one area can quickly permeate the entire system as was seen during some merger consolidations and as recently as during the winter of 2013/14.

5. Failings of Mandated Access in Australia

The STB should learn from the failings of mandated access in Australia. A comprehensive BCA assessment of the mandated access policy was not conducted in Australia. However, a retrospective BCA that I conducted revealed that the costs of coordination were greater than the benefits once wealth transfer was eliminated.¹²

Mandated access had been in place for over a decade in Australia at the time of my study. There were some rate reductions but social welfare gains were questionable at best. The rate reductions appeared to be small relative to the increased coordination problems and costs associated with access including increased handlings, wheel-rail interface issues, access prioritization, etc.¹³ Moreover, the Australian experience suggests that the rate reductions, which were concentrated on the heavyhaul segment of the rail freight market, did not increase the volume shipped by rail. Given that prices for Australia's key rail commodities, coal and ore, are world market prices, the rail rate reductions were largely a wealth transfer from railroads to shippers rather than a welfare or efficiency gain for society as a whole.¹⁴

A summary of my study findings are: (1) the primary outcome of mandating access was a wealth transfer from railroads to shippers, rather than public value creation; (2) the costs of coordination (a term used to refer to the full range of costs associated with access, from redundant terminal capacity to extra interchange expenses to longer transit times for shippers) were significant; (3) the promise of competition leading to efficiency, investment, innovation, new services and the like had not materialized.

The bottom line is that a thoughtful BCA, that recognized that access driven rate reductions are merely a wealth transfer not a creation of public value, could have led to better public policy decisions.

6. Conclusion

I suspect that the unspoken motive for mandated switching is that the Board has heard from shippers that some of them do not like their rates. If that is the problem to be addressed, then the Board must clearly define the problem, determine whether it is a

¹² Introducing Competition into Natural Monopoly Industries: An Evaluation of Mandated Access to Australian Freight Railroads, Mark Fagan, Regulatory Policy Program, Mossavar-Rahmani Center for Business and Government, Harvard Kennedy School, RPP-2007-05, 2007.

¹³ See Reply Comments of the Association of American Railroads, *Petition for Rulemaking to Adopt Revised Competitive Switching Rules*, STB Ex Parte No. 711, Verified Statement of Mark Fagan (filed May 30, 2013).

¹⁴ See id.

legitimate problem, assess the options, and then measure the benefits compared to the costs, which would include undermining differential pricing and the ability of railroads to have revenues to contribute to fixed and common costs. The STB also must ensure that the benefits are social welfare gains not wealth transfers.

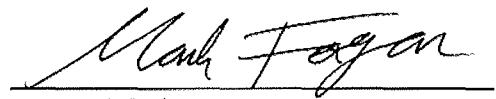
The introduction of the proposed rules in the absence of a BCA represents a significant risk for both shippers and railroads. In the words of Commissioner Begeman, detailed analysis is required to ensure “unintended consequences” will not result.¹⁵ Defining the problem, conducting a benefit-cost analysis, and learning from the failings of Australia’s mandated access policy can lead the STB to the right policy.

¹⁵ NPR at 34.

VERIFICATION

I, Mark Fagan, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed: October 26, 2016



Mark Fagan

BEFORE THE SURFACE TRANSPORTATION BOARD

STB EX PARTE NO. 711 (SUB-NO. 1)

RECIPROCAL SWITCHING

**OPENING COMMENTS OF
William J. Rennicke**

October 26, 2016

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1. Introduction

I, William J. Rennicke, submit this verified statement in support of the Opening Comments of the Association of American Railroads (“AAR”) in response to the Notice of Proposed Rulemaking (“NPRM”) issued by the Surface Transportation Board (“Board”) on July 27, 2016.

I have 40 years of experience in operations and network planning, with a focus on improving railroad operations and profitability. I began my direct involvement with railroad network planning in 1978, when I was a vice president in the executive department at the Boston & Maine Railroad; it was at this time that the railroad hosted the Federal Railway Administration’s Freight Car Utilization Program (FCUP). I was directly responsible for the multi-year joint government and industry effort and was a member of the Class I steering committee. FCUP addressed the catastrophic rail operating problems in the 1970s and became the government-funded foundation for many of the positive network and operations changes that were pursued by most Class I railroads in the ensuing decades.

Oliver Wyman, where I have been a partner for 20 years, is a leading management consulting firm to the rail industry with decades of experience in rail operations and network planning and firsthand knowledge of the penalties that could be incurred for shippers and service levels in the event of random and unplanned-for changes to switching. In addition, Oliver Wyman’s Multimodal specialty unit has provided network and operations planning software to five of the seven North American Class I railroads to enhance network performance.

On March 1, 2013, I provided a Verified Statement to the STB on behalf of AAR in the matter of Ex Parte 711, *Petition for Rulemaking to Adopt Revised Competitive Switching Rules*, and on May 30, 2013, I provided a Reply Verified Statement in the same proceeding. In this

proceeding, the AAR asked me to review the NPRM, and to comment on how the proposed mandated switching rules might impact the operating issues I presented in my prior statements. After reviewing the NPRM for the current proceeding, I continue to have serious reservations regarding the potential impairment of US railroads' operating performance that would follow from the implementation of mandated switching. Mandated switching would increase operating complexity and the risk of service failures and ultimately would reduce the capital available for the nation's freight rail infrastructure.

Furthermore, I have new concerns about the Board's belief that addressing requests for switching on a case-by-case basis would "allow the Board a greater degree of precision when mandating reciprocal switching."¹ Railroads are not a collection of isolated yards that can be reviewed independently, but rather a highly interconnected network. Without careful, centralized planning, a change at one location can have negative consequences in multiple other locations – and changes in multiple locations can engender compounding effects that lead to widespread service failures. Case-by-case examination of individual switching requests will not enable a full or adequate review of potential service impacts, to the detriment of all users of the rail network.

In summary, the potential issues raised by the current proposed rulemaking approach include:

- Inevitable reductions in efficiency and increased risk of service failures: The Board's decision clearly contemplates an increase in mandated switching. As stated in the NPRM, "The proposed regulations would revise the Board's reciprocal switching rules to promote

¹ Surface Transportation Board, Decision, Docket No. EP711 (Sub-No.1), Reciprocal Switching, July 26, 2016, p. 15 ("Reciprocal Switching NPRM").

further use and availability of reciprocal switching.”² Thus, there can be no doubt that the Board’s objective is to expand reciprocal switching under the proposed rules, and since every switch adds additional work and complexity, mandated switching will have a negative effect on railroad efficiency and lead to an increased risk of service failures.

- Increased railroad uncertainty due to greater shipper control: The lack of specificity in the NPRM would provide shippers with more control over terminal and traffic routing decisions, creating a less stable environment for railroad planning and operations, since railroad operating and infrastructure planners would not be able to predict where and when mandated switching would occur. Shippers would act in their own best interests and likely exploit the rules by frequently altering volumes and carrier choice when they perceive there are tactical advantages in doing so. This creates a situation where the railroads would be faced with a lack of even basic volume planning information at potential mandated switching locations.
- Risk of cumulative service problems: The Board assumes it can adequately identify service problems that would arise from switching on a case-by-case basis. But operational failures are inherently unpredictable, and network effects could arise almost anywhere. The service meltdowns arising after even well-planned mergers or the escalating collection of one-off service failures from a major weather event have shown how easily fragile operating plans can be disrupted. Similarly, compounding service failures could be an unintended consequence of a case-by-case approach. These effects cannot be identified or dealt with in case-by-case litigation over particular switching requests.

² *Id.* at p. 16.

It is undeniable that decreased efficiency and inferior service would result from mandated switching. But nothing the Board says about proceeding on a case-by-case basis mitigates concerns about efficiency and service at all. An insular focus on switch locations provides no opportunity to effectively address broader service implications, particularly those which may be cumulative or that would require complex analysis to weigh service and network impacts. And the rules do not even contemplate that decreased efficiency would be a factor in deciding whether to impose a switch in particular cases under Prong 2 of the Board's proposed rules.

2. Incremental Switching Unavoidably Reduces Efficiency and Increases Risk of Service Failures

The Board's proposal to adopt relaxed switching standards contemplates increased switching operations on the nation's rail network, in the form of government-mandated, non-consensual switching. No one knows exactly how much incremental switching would occur as a result of the proposed rules, but the Board's premise seems to be that there is insufficient government-mandated switching under its current rules. The Board's objective in changing the rules is apparently to increase government-mandated switching. It is indisputable that increased switching would result in:

- Increased operating costs: A switch involves both direct expenses (crew time, locomotive time, track time, fuel usage, etc.) and indirect expenses (train delays due to congestion, increased fleet size due to lower railcar utilization, etc.), just to move the same number of loads.
- Reduced operating efficiency: Railcars that are switched have longer trip times. This reduces car velocity and increases track occupancy, just to move the same number of loads.

- Increased risk of service failure: Every event that occurs on the railroad has a probability of being successfully executed. As the number of events increases – such as the multiple events involved in an added switching move – the cumulative probability of all events for a trip being successful would decrease, thus leading to more service failures.

A. Historical Improvement in Efficiency Through Reduced Interchanges

The operating and financial performance of the US railroad industry has dramatically improved over the past several decades. This performance improvement has been the result of many interrelated factors, but two key drivers have been: 1) the ability of the railroads to simplify their operations by reducing the amount of traffic interchanged with other railroads, and 2) achieving economies of density and scale by concentrating volume. Improving performance by reducing switching is a well-known fact in the industry, as the Board’s predecessor, the Interstate Commerce Commission (“ICC”) observed over 35 years ago:

“Interchanging traffic adds to the total cost of handling traffic, including operational cost (car-switching) and clerical costs (recordkeeping). Interchanging freight also adds significantly to delivery time, since the time a railcar spends in a yard or terminal is most of its time in transit and an inefficient use of cars.”³

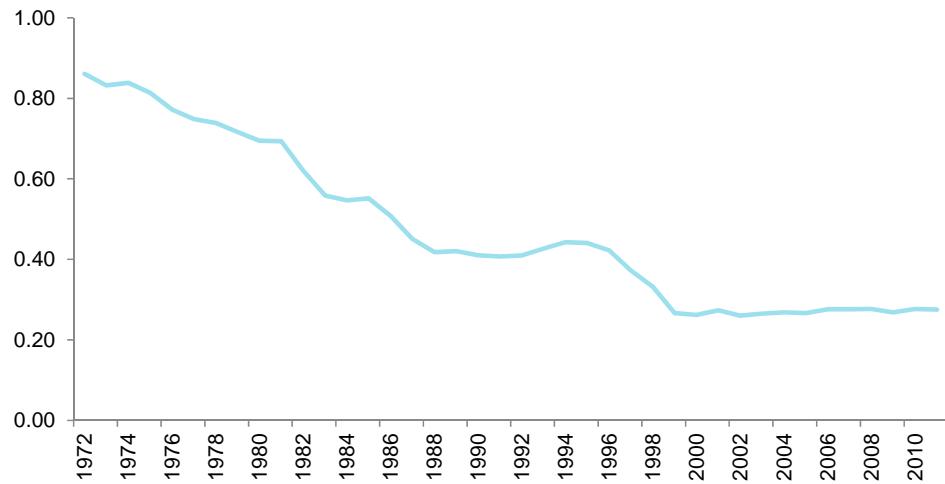
A more recent analysis of potential service degradation and increased service failures presented below confirms that the ICC observations remain true today.

A reduction in the number of Class I railroads, combined with the elimination of inefficient and often duplicative routes and efforts to close redundant and little-used interchange locations,

³ Burlington Northern, Inc. – Control and Merger – St. Louis-San Francisco Ry. Co., 360 I.C.C. 788, 940 (1980) (“BN/Frisco”).

has over time reduced the amount of traffic interchanged between railroad operators. Exhibit 1 presents the historical perspective: a steady decline in the average number of interchange events per railcar through the late 1990's and the maintenance of these low interchange event levels since.⁴ Between 1972 and 2011, the average number of interchange events per railcar declined from 0.86 to 0.28. This reduction greatly streamlined railroad operations, making them more reliable, and helped support the change to more schedule-based operating plans that offered improved customer service.

Exhibit 1: Average Interchange Events per Car, 1972-2011⁵



Much of the improvement in railroad efficiency is attributable to the rationalization and consolidation of railroad network flows, which has permitted railroads to move increasing amounts of traffic over a network of efficient, high-density main lines with fewer work events per shipment. As shown in Exhibit 2, historically there has been an almost perfect negative

⁴ Interlining is defined as moving on more than one railroad. A railcar moving from origin to destination over three different railroads is counted as one interline move and two interchanges.

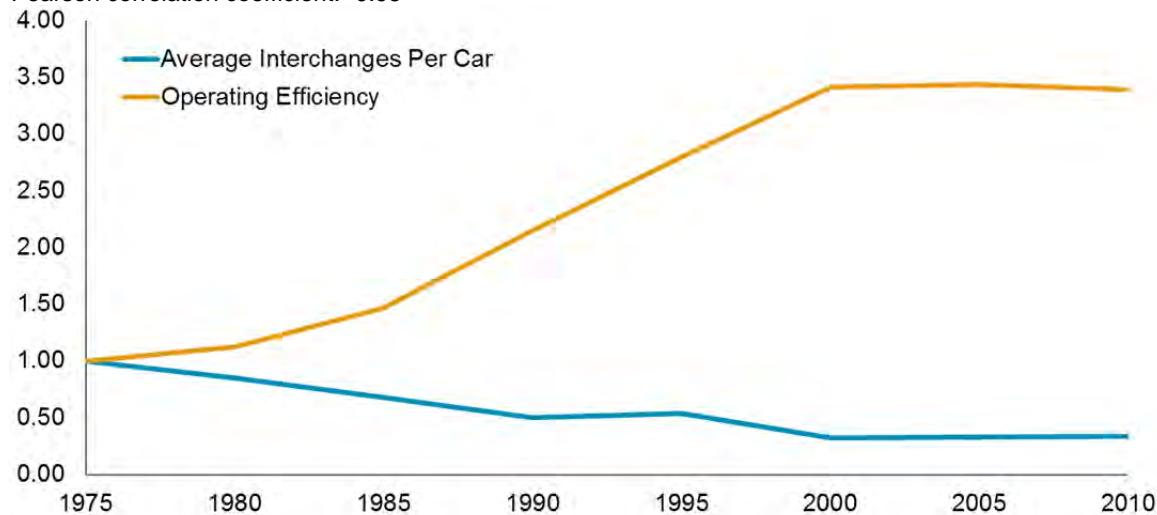
⁵ Source: Freight Commodity Statistics, 1972- 2011, US carload movements excluding intermodal traffic (STCCs 42, 43, 44 and 46), Association of American Railroads; Oliver Wyman analysis.

correlation between the average number of interchange events per railcar trip and the amount of ton-miles a railroad can move per dollar of operating expense (inflation adjusted).⁶

Exhibit 2: Indexed Average Interchange Events per Railcar vs. Operating Efficiency, 1975-2010⁷

Operating Efficiency = revenue ton-miles/\$ of inflation-adjusted operating expense

Pearson correlation coefficient: -0.95



As described in my prior submissions under EP711, mandated switching would erode the operating cost and efficiency gains made by the rail industry since the 1980s. For every additional railcar switched under the proposed rules, operating efficiency would decline – since the same quantity of revenue ton-miles would be moved, but would entail higher operating costs.

I am not claiming that all switching is bad or should be discouraged. Voluntary switching arrangements between carriers are generally in the public interest because the parties to such switching arrangements enter into them knowing that they will affect operations, but confident

⁶ The -0.95 correlation coefficient means that historically as the railroads reduced the average number of interchanges, productivity increased. Although it is not possible to prove that a reduction in interchanges caused productivity to rise, there is strong evidence that reducing interchanges and the switching required to process these interchanges was an important part of simplifying the network and thus was a significant contributing factor.

⁷ Source: Rail Fact Book, 2012 edition, Association of American Railroads, pp. 14 and 27 (opex and RTM); Association of American Railroads email (avg. interchanges); <ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt> (CPI); Oliver Wyman analysis. Values are reported in 5-year increments. The correlation coefficient was generated from actual values, not indexed values.

that the benefits will exceed any added operational costs. When those benefits do not exceed the costs or circumstances change, the parties can terminate the switching arrangement. Consensual switching arrangements have sufficient definition and stability to allow for network planning by the involved carriers to minimize costs. In the case of mandated switching, however, shippers would control the frequency and volume of switches, making it difficult for railroads to minimize operational costs and increase transit reliability through careful network planning.

B. Increased Switching Events Increase the Risk of Service Plan Failure

The process of interchanging cars between railroads unavoidably involves numerous car handlings that exceed – in some instances by multiples – the car handlings required to provide single-line service. Exhibits 3 through 5 show a set of examples I provided in my prior submissions, illuminating how switching rapidly escalates the number of events involved in moving a car versus single-line service – and thus greatly increases the probabilities of service failure.

Exhibit 3 provides an example of the typical number of events involved in originating a car for single-line service – six steps are required to move the empty car from the local yard to the origin and the loaded car back to the local yard to be switched into an outbound train headed for the destination. And in this case, all the steps are controlled by a single railroad.

Exhibit 3: Example Steps Involved in Single-Line Car Origination⁸

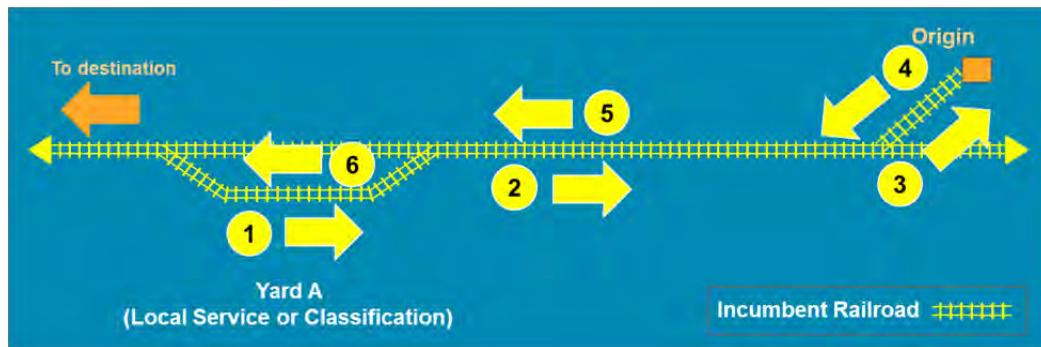
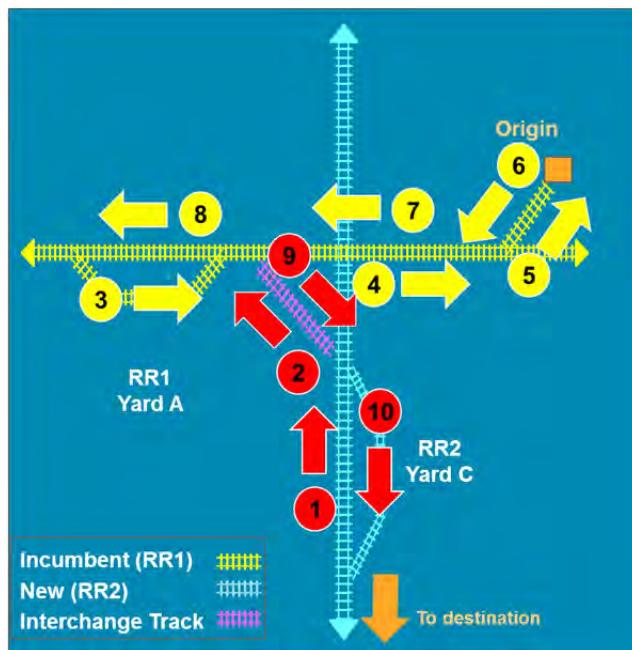


Exhibit 4 provides an example of the simplest mandated switch, which raises the total number of events to ten, and now involves coordination between and planning by two railroads. The additional steps are shown in red.

Exhibit 4: Example Steps Required for the Simplest Mandated Switch⁹

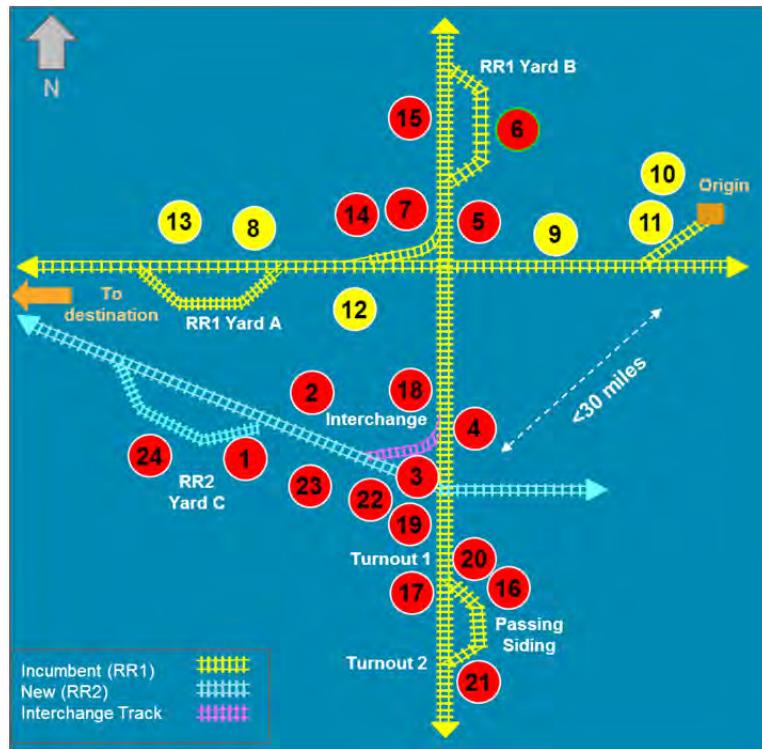


⁸ Before the Surface Transportation Board, Ex Parte No. 711, Petition for Rulemaking to Adopt Revised Competitive Switching Rules, Public Hearing Testimony of William J. Rennicke – Exhibits, March 25, 2014, p. 2 (“Rennicke Hearing Exhibits”).

⁹ *Id.* at p. 3.

However, most mandated switches would occur in complex terminals, where neither the track configuration nor the service plans of the railroads involved are necessarily configured to accommodate a new mandated switch. Exhibit 5 provides a likely example of such switching, where 24 events are required to implement the interchange. Such switches would be typical in many urban areas. The additional steps versus single-line service are shown in red.

Exhibit 5: Example Steps for Complex Mandated Switching (Such as in Urban Areas)¹⁰



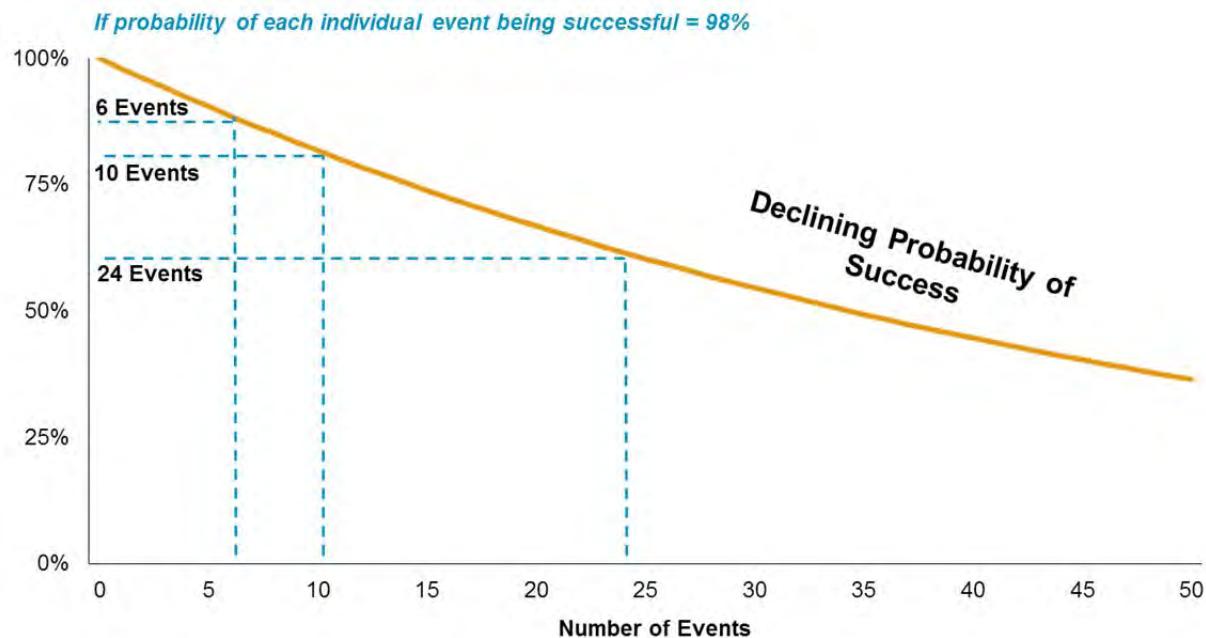
The above hypothetical examples show how the complexity of interchanges can quickly grow as a second railroad becomes involved in a movement. Real-world examples are even more complex, as railroads must fine-tune operations to leverage available capacity and balance workloads in a given region. Union Pacific provided the Board with actual case studies, for

¹⁰ *Id.* at p. 4.

example, in which it described the intricacy of operations for yards in and around Houston, Kansas City, and Sioux City.¹¹

Each new added event increases the risk of failure, in other words the risk that a railroad will not be able to meet its service plan for a car. In Exhibits 3 through 5 above, the probability of meeting the service plan declines from 88.6 percent for a single-line origination to 81.7 percent for a ten-step mandated switch, and to 61.6 percent for a 24-step mandated switch, if each event has a 98 percent chance of being successful (Exhibit 6).

Exhibit 6: Declining Probability of Successfully Executing a Trip Plan as Switch Events Increase¹²



Cars that miss their trip plan are not only at high risk of missing their planned delivery date, but of adding to congestion in yards and terminals, further imperiling the trip plans and schedules

¹¹ Before the Surface Transportation Board, Opening Comments and Evidence of Union Pacific Railroad Co., Petition for Rulemaking to Adopt Revised Competitive Switching Rules, Ex Parte No. 711, (filed Mar. 1, 2013), pp. 29-52.

¹² Rennicke Hearing Exhibits at p. 5.

of other cars. Thus reliability is reduced not only for shippers and their cars under a mandated switching order, but potentially for all customers and carloads on the network.

The examples above of complexity for discrete switching instances substantially understate the level and pace of service deterioration that could potentially occur. Each described example would repeat itself multiple times, leading to the unintended consequence of cascading failures not only in the origin yard but throughout the network, undermining railroads' ability to develop and implement service plans, and eroding shippers' confidence in rail as a reliable and efficient transport mode. This situation would be exacerbated if frequent changes in switch traffic were to occur, or even worse, splitting of traffic between the incumbent and new routes randomly on a daily basis, so that what was once single-line service now must be duplicated. And, all of this would be dictated by each shipper based on its own interests, without regard for or knowledge of the network-wide impacts of its actions.

3. Increased Uncertainty and Risk of Cumulative Service Problems

The Board assumes it can adequately identify service problems that would arise from mandated switching under the proposed rules through case-by-case litigation in individual cases under open-ended rules. But the lack of specificity in the NPRM would only increase uncertainty for rail operations and planning, while case-by-case switching assessments would not permit the Board to determine the cumulative impact of individual switch orders on the rail system as a whole. The cumulative impact of mandated switching across the rail network and over time cannot be assessed in individual cases. A future succession of switching requests would be unpredictable, and granted switching orders that are not immediately used could be activated suddenly in times of congestion to gain preferential treatment for a shipper's traffic, at the cost of

further service deterioration over the network as a whole. None of these adverse effects can be addressed through case-by-case litigation under the broad and uncertain parameters of the Board's proposed rules.

A. The NPRM Increases Uncertainty in Rail Planning and Operations

Commissioner Begeman notes in her dissenting statement that "Today's proposal, in my view, is full of gaps by design."¹³ I concur with this assessment, since many of the criteria contained in the NPRM are left open to interpretation by current and future Boards. The Board appears to believe that this uncertainty would allow it to act with more "precision" to avoid adverse service impacts. I believe the contrary is true, since shippers granted mandated switching rights would have control over the volume and frequency of switches. The result of the Board's approach would be a less stable environment for rail planning and operations – one where volumes could change dramatically day to day, impacting not just switched traffic but also all other traffic at interchanges and downstream yards. Some of the most critical uncertainties introduced by the NPRM, and their potential impacts on planning and operations, are listed in Exhibit 7.

Exhibit 7: Factors That Would Contribute to Railroad Operating Uncertainty

| Factors Adding Uncertainty | Potential Planning and Operating Impacts |
|---|--|
| "Reasonable distance" from an interchange is unknown | Without defining "reasonable distance," the Board would have the authority to grant mandated switching anywhere in the country. This would increase operational uncertainty throughout the rail network and the risks associated with capital investments, since the railroads would never be certain that investments in capacity expansion at any location would result in the traffic volumes they projected to justify the investment. |
| Once switching rights are granted, a shipper could add | While the condition for ordering mandated switching "necessary to provide competitive service" (Prong 2) would seem to imply a specific origin, destination, and commodity, the condition of switching that is "practical and in the public |

¹³ Reciprocal Switching NPRM at p. 36.

| Factors Adding Uncertainty | Potential Planning and Operating Impacts |
|--|---|
| other locations and commodities | interest" (Prong 1) could be interpreted to apply to all destinations and all commodities if an origin location is granted mandated switching. A shipper could apply for mandated switching for a subset of traffic, but then expand that to other destinations and other commodities once the switching rights were obtained, adding to rail operating uncertainty. |
| The shipper could frequently change railroads | Once a shipper chooses to use a new route under a mandated switching order, there is no defined time period in which it must use the option (e.g., weeks/months). The shipper could move traffic back and forth between railroads on a daily basis at will, creating a situation where the railroads would face a rolling lack of even basic volume planning information. |
| The shipper could wait to exercise mandated switching rights months or years after they are granted | A shipper might seek, and be granted, mandated switching rights at a location, yet never exercise those rights because the desired outcome of lower rail rates had been obtained. However, consider a scenario such as the winter of 2013-2014, where the railroads faced huge backlogs due to record traffic demand together with an exceptionally harsh winter – all of which led to months of rail congestion and service failures. In such a scenario, a shipper facing congestion on its legacy carrier might believe that using the mandated switching option it had already been granted would expedite movements. Such sudden changes as each shipper tries independently to improve its own position, coming on top of existing service problems, could be catastrophic, with new traffic flows demanding attention at the same time that carriers are already struggling to deal with existing congestion. Thus the problems of high volumes and poor weather would only be compounded by the uncertainty of a constantly changing traffic base, stifling system-wide recovery efforts. |
| The shipper could split traffic between railroads | Once a shipper is granted mandated switching, the shipper could split traffic so X percent goes to the incumbent carrier on any given day and Y percent to the new switch carrier route. Without volume stability, it will be challenging and expensive for the railroads to maintain the correct crew and equipment capacity at a location for traffic that could be diverted. |

It is worth noting that all of the questions above illustrate the undeniable decrease in efficiency and increased uncertainty that would result from mandated switching. The Board's proposed rules provide no mechanism for addressing these obviously negative consequences of mandated switching.

B. Case-by-Case Switching Rulings Increase the Potential for Cumulative Service Failures

Class I railroads operate thousands of miles of track in a highly interconnected network, where congestion and delays in one portion of the network can have ripple effects throughout the

entire network. To establish the impact of a change, such as an increase or decrease in volume, requires understanding not just the situation at the origin location, but also at all downstream locations, as well as how the changed traffic will interact with other traffic on the network.

The NPRM states that “Imposing reciprocal switching on a case-by-case basis would allow the Board a greater degree of precision when mandating reciprocal switching.”¹⁴ But while a case-by-case basis might address the specifics of one situation in a vacuum, layer upon layer of additional switch traffic could result in the aggregate. The cumulative effects could exponentially compound the potential for service failure, undermining service planning and reliability on a widespread basis.

Each railroad has a service design department armed with sophisticated planning software to evaluate how a single change may have unintended consequences in other parts of the network. The process varies from railroad to railroad, but typically involves rigorous, iterative simulation of potential trip planning impacts, with feedback adjustments, until the service designer is assured the plan is feasible and that the impacts of an isolated change on the network are fully understood. It should also be noted that the service design process is so complex and critical to operations that only a small number of people, typically fewer than five, have permission to change the plan at a Class I railroad.

If the Board wishes to understand whether or not mandated switching is feasible and ensure it can identify and head off service problems in advance, a case-by-case analysis will not be sufficient. Identifying potential points of operational failure and network effects is inherently difficult, and the unintended consequences of cumulative mandated switching orders are likely

¹⁴ Reciprocal Switching NPRM at p. 15.

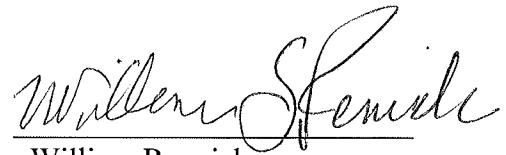
impossible to model. Furthermore, this modeling process would have to be done not just for the Class I receiving new traffic, but also for the incumbent railroad, to understand how a loss of traffic impacts downstream trains and yard workloads. In short, the uncertainty over future changes in demand and cumulative network effects would make it difficult for a railroad to demonstrate in individual cases the full impact of a mandated switching order.

Finally, consider a location with multiple shippers served by one Class I railroad. One of the shippers at the location petitions the Board under the proposed rule and is granted switching rights, but decides to keep the traffic on the incumbent railroad. Seeing a successful decision for the first shipper, a second shipper petitions for switching rights, followed by a third, then a fourth, etc. Should analysis to determine the practicality of these subsequent requests assume that the first shipper continues to not switch traffic, or should the analysis assume the shipper may decide to switch all of the traffic to the competitor railroad? At some point, the amount of switching the incumbent railroad is asked to perform at the local yard becomes impractical due to capacity constraints; however, since the shippers would control switching volumes and frequencies, it would be difficult for the railroads to accurately determine the impact of any one individual case before the Board.

VERIFICATION

I, William Rennicke, verify under penalty of perjury under the laws of the United States
that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed: October 26, 2016


William Rennicke
William Rennicke

Appendix

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Ex Parte No. 711

**PETITION FOR RULEMAKING TO ADOPT REVISED
COMPETITIVE SWITCHING RULES**

**OPENING COMMENTS OF THE
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March 1, 2013

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Verified Statement of Michael R. Baranowski and Richard W. Brown

Verified Statement of B. Kelly Eakin and Mark E. Meitzen

Verified Statement of William J. Rennicke

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Ex Parte No. 711

**PETITION FOR RULEMAKING TO ADOPT REVISED
COMPETITIVE SWITCHING RULES**

**OPENING COMMENTS AND EVIDENCE OF THE
ASSOCIATION OF AMERICAN RAILROADS**

In a Notice issued by the Board on July 25, 2012 and modified on October 25, 2012, the Board invited interested parties to submit comments and empirical evidence on a proposal by the National Industrial Transportation League (“NITL”) to modify the Board’s competitive access regulations relating to reciprocal switching. *Petition for Rulemaking to Adopt Revised Competitive Switching Rules*, STB Ex Parte No. 711 (served July 25, 2012) (“EP 711 Notice”). Set forth below and in the attached verified statements are the Opening Comments and Evidence of the Association of American Railroads.

AAR and its witnesses explain in these Opening Comments that the NITL proposal is a short-sighted attempt to obtain lower rates for a group of favored shippers at the expense of the broader shipping community. If the NITL proposal were adopted, all users of the rail network would be threatened by a potentially serious reduction in the quality of rail service. The Board should not be picking winners and losers among rail shippers through a restructuring of commercial relationships in the railroad industry. The NITL proposal is seriously flawed as a matter of public policy and is inconsistent with the existing statutory scheme as construed by the courts.

I. Introduction and Executive Summary

The NITL proposal contemplates a fundamental change in the Board's regulation of Class I railroads' operating and commercial practices. The NITL proposal purports to give shippers served by a single Class I railroad the right to force their serving railroad to switch the shipper's freight to another railroad if (1) there is no effective inter- or intramodal competition for the movement to be switched, (2) switching can be performed within a "reasonable distance" of the shipper's facilities, and (3) the switching is not infeasible or unsafe or would not unduly hamper the incumbent railroad from serving its other shippers. NITL would implement this mandatory switching regime through the use of conclusive presumptions that would establish when there supposedly is a lack of effective inter- or intramodal competition and when switching can take place within a "reasonable distance" of the shipper's facilities. *See Petition for Rulemaking to Adopt Revised Competitive Switching Rules*, Ex Parte 711, at 8 (filed July 7, 2011) ("NITL Petition").

The Board noted in the July 25, 2012 Notice that it is not able to "fully gauge [the] potential impact" of the NITL proposal and concluded that "additional information is needed before we can determine how to proceed." EP 711 Notice at 2. The Board's initiation of this proceeding to develop information on the impact of the NITL proposal reflects the fact that there is no empirical basis at the present time for presuming that the NITL proposal is in the public interest. It would not be appropriate to give serious consideration to the kind of fundamental change in the Board's competition regulations reflected in the NITL proposal without first understanding its potential impact on railroads and shippers and on the adequacy and efficiency of rail transportation.

AAR's Evidence

AAR and its witnesses have undertaken an analysis of the potential impact of the NITL proposal on railroads, shippers and the Nation's rail network using the carload waybill sample data made available by the Board and other generally available sources of information. As AAR and its witnesses explain, this information does not permit an assessment of potential impact at the level of precision or certainty that the Board seeks. Moreover, a meaningful assessment of potential impact is severely hampered by the fact that the NITL proposal is little more than a general concept with critical details left to be developed at some future time. The many ambiguities and unanswered questions raised by the NITL proposal necessarily make quantifying its impact an exercise in speculation. Despite these serious limitations, AAR and its witnesses present the following preliminary analyses and conclusions, which are described in more detail below and in the accompanying verified statements.

First, NITL tries to portray its proposal as moderate and limited, but the proposal has the potential to affect a large amount of railroad traffic. AAR's witnesses Messrs. Baranowski and Brown of FTI Consulting Inc. explain that it is not possible using the carload waybill sample and other generally available industry data to carry out a shipper-specific or terminal-specific impact analysis, as requested by the Board. However, their analysis of the available data shows that, under the NITL proposal, over one-third of the rail industry's non-intermodal carloads could become subject to mandatory switching orders.¹ Moreover, the number of carloads potentially affected understates the impact of the NITL proposal because the carloads that would be subject to mandatory switching would tend to be high-margin traffic. Messrs. Baranowski/Brown also

¹ Intermodal carloads were excluded from the analysis of Messrs. Baranowski/Brown since the NITL proposal does not purport to cover traffic that originates or terminates at railroad-owned intermodal facilities.

show that the NITL proposal could affect movements that originate or terminate at approximately 40 percent of the Nation's rail-served stations. They explain that due to limitations in the available data this estimate is likely understated.

Second, the NITL proposal would have a negative impact on rail service across the rail network, with especially serious potential effects in areas where yard or line capacity is presently constrained. AAR's witness Mr. Rennicke of Oliver Wyman, Inc. explains that, even under ideal circumstances, adding an interchange to a movement that is currently handled in single-line service adds time and complexity to the movement. Mr. Rennicke explains that the tremendous improvements in productivity, reliability of service and capacity utilization that the railroad industry has achieved since the Staggers Act were accomplished in large part by rationalizing the routing of traffic and streamlining carload switching activity. The NITL proposal would turn back the clock on these improvements that have benefitted all users of the rail network. As Mr. Rennicke explains, the additional switching activity that would be required, the increased possibility of service failures caused by that new switching activity, and the complex operations that would often be required to bring about the new interchanges would disrupt traffic patterns, produce congestion in yards, and undermine efficient scheduling of train service. Even where traffic disruptions resulting from the NITL proposal might be localized, recent experience shows that such disruptions have the potential to spread across the interconnected rail network with large-scale effects. Mr. Rennicke provides numerous examples to illustrate the adverse impact of mandatory switching on service. He also explains that longer transit times would increase car costs for shippers and railroads and increase car and locomotive fleet requirements. Safety could be compromised. Substantial new infrastructure would be needed to support the new mandatory

switching regime, but railroads would not have the incentive to make the necessary capital investments and their ability to fund the needed investments would be reduced.

Third, AAR's witnesses Messrs. Eakin and Meitzen of Christensen Associates explain that the NITL proposal favors a defined group of shippers – those served by a single Class I carrier who happen to be located in the vicinity of an interchange between two railroads. Those shippers would likely see a decline in their rail service as the rail network became less efficient, but they might obtain lower rates to offset in part the decline in service quality. However, the majority of shippers would be ineligible for mandated switching and would suffer a reduction in service quality without any offsetting rate reduction as a result of the service disruptions caused by the mandatory switching orders. Moreover, in addition to a decline in rail service, the excluded shippers could suffer from a competitive disadvantage in markets where they compete with the shippers able to invoke mandatory switching. By restructuring the railroad industry to provide multi-carrier service for a group of favored shippers, the NITL proposal would pick winners and losers among shippers and override market forces in many areas of the U.S. economy.

The NITL Proposal Is Not in the Public Interest

As the Eakin/Meitzen testimony suggests, the NITL proposal presents a textbook example of the law of unintended consequences. The express objective of the NITL proposal is to produce lower rates for a group of favored shippers. While it is impossible to predict the precise impact on rates, the stated objective of the NITL proposal is to produce lower rates for the favored shippers, with the consequent reduction in contribution (revenues in excess of variable cost) that railroads could invest in rail infrastructure. But in the process of giving artificial rate reductions to a group of shippers – despite the absence of any demonstration that

there is a legitimate reason for them to obtain lower rates – the NITL proposal would create rail service complications that would seriously compromise the efficiency and reliability of the U.S. railroad network that has been an engine of economic growth in this country and is the envy of the world. NITL asks the Board and the entire rail community, including shippers who would be put at a competitive disadvantage as a result of the NITL proposal, to accept the risks of serious rail service failures so that a certain group of shippers can get artificial rate reductions. It would not be in the public interest for the Board to embark on such a fundamental change in regulatory policy, with potentially adverse implications for all users of the rail network, simply to satisfy the desire of a group of shippers to pay lower rail rates.

The NITL Proposal Is Inconsistent with Governing Law

Nor would it be consistent with governing law for the Board to engage in the restructuring contemplated in the NITL proposal. Recognizing that this proceeding is primarily about the development of empirical evidence, AAR nonetheless believes that it is critically important that the Board not lose sight of the broader legal context of this proceeding in evaluating the evidence presented by participating parties. NITL's proposal seeks to restructure the railroad industry to provide multi-carrier service through regulatory mandates for a large group of shippers who have no claim for such regulatory intervention apart from the fact that they are directly served by only one railroad. AAR explains below that the ICC and the courts have already concluded that Congress did not give the Board such broad authority. Moreover, the express objective of the NITL proposal is to obtain rate relief for a group of favored shippers without having to meet the statutory maximum reasonable rate standards that the Board has implemented to determine whether rate relief is warranted. The ICC and the courts have concluded that use of the competitive access provisions of the statute to achieve back-door rate

relief is impermissible. AAR further explains below that the presumptions that NITL proposes to implement its mandatory switching regime are ill-conceived, inappropriate and unworkable.

Therefore, the basic thrust of the NITL proposal and its proposed mechanics are fundamentally at odds with the regulatory framework established by Congress. The Board's competitive access authority, including its authority to order reciprocal switching, is intended to address specific problems with a railroad's conduct, not as a tool for restructuring the rail industry. But the NITL proposal requires no showing of a problem with service provided to a particular shipper, no evidence that the shipper is entitled to a rate reduction, and no explanation by the shipper as to why access to another carrier would be appropriate. The sole predicate for relief, once the geographic conditions are met, is that the incumbent rail carrier supposedly has market power over the movement at issue. The Board does not have authority to order relief based solely on the existence of market power; some further individualized showing that the relief is justified is required.

* * * *

AAR's Comments and Evidence are organized as follows. AAR first summarizes the evidence submitted by AAR's witnesses in response to the five specific questions posed by the Board and explains why the NITL proposal is not in the public interest. Following a discussion of the evidence, AAR explains why the NITL proposal is contrary to the law and precedent governing the Board's use of its competitive access authority. Finally, AAR discusses the flawed conclusive presumptions that are at the heart of the NITL proposal.

II. AAR's Evidence Concerning the Board's Five Impact Questions

This proceeding is an outgrowth of the Board's wide-ranging inquiry into competition in the railroad industry in Ex Parte No. 705, *Competition in the Railroad Industry* (STB served Jan. 11, 2011) ("Jan. 11, 2011 Notice"). After comments were filed by a large number of parties but

before the Board issued a decision, NITL filed the Petition for Rulemaking that is the subject of this proceeding. In response to NITL's Petition, the Board concluded that it could not assess the impact of the NITL proposal on the railroad industry and its shippers and requested that interested parties submit evidence on that issue. The Board specifically asked the parties to address five sets of questions:

1. Identify the existing terminals and shippers located within the boundaries of those terminals. Explain whether the shippers can currently obtain competitive switching and any restrictions or limitations on the shippers' competitive switching rights.
2. Identify how many additional shippers and what amount of revenues earned by the incumbent Class I rail carrier from those shippers would be subject to competitive switching under NITL's proposal.
3. Based on the commenter's assumed access pricing methodology, by how much would NITL's proposal lower rates for the shippers identified in the study that would qualify for competitive access? How much revenue would the incumbent Class I rail carrier lose as a result of NITL's proposal? How much of this revenue loss could be offset through traffic increases or other gains?
4. What would be the economic and regulatory impacts of NITL's proposal on the captive shippers served by the incumbent Class I rail carrier or carriers included in the study that would not be covered by NITL's proposal and, therefore, would continue to be served only by the incumbent carrier? Would their rates increase, and, if so, by how much, to offset the reduced rates to others?
5. How would rail network efficiency be affected by NITL's proposal?

EP 711 Notice at 9.

AAR's evidence on the questions posed by the Board is set out in the verified statements of Michael Baranowski and Richard Brown of FTI Consulting, William Rennicke of Oliver Wyman, and Kelly Eakin and Mark Meitzen of Christensen Associates. Each statement addresses different aspects of the five questions posed by the Board. Messrs. Baranowski and

Brown provide an estimate of the number of stations at which switching might be required under the NITL proposal and the aggregate number of revenue carloads, based on the 2010 Carload Waybill Sample (CWS), that could be subjected to mandatory switching under the NITL proposal. (Board Questions 1 and 2). Messrs. Eakin and Meitzen address the potential impact of the NITL proposal on shippers other than those who could take advantage of mandated switching. They also address whether railroads could expect to replace revenues lost due to mandated switching through additional traffic. (Board Questions 3 and 4). Mr. Rennicke addresses the numerous ways in which the NITL proposal would likely have an adverse impact on service and degrade existing rail network efficiency. (Board Question 5).

AAR's witnesses explain that while it is clear that the NITL proposal would have broad, adverse effects on railroads and the rail network, the precise impacts of NITL's proposal are impossible to determine for multiple reasons. First, the CWS data made available by the Board permit only a rough estimate of the movements that would be subject to mandated switching under NITL's proposal. Second, the NITL proposal is vague and unclear in many respects, with many of the critical details about scope and implementation to be developed. Finally, even if the immediate impact of the proposal on shippers that could take advantage of mandated switching could be determined, the NITL proposal would have wide collateral effects throughout the rail network and the U.S. economy, including both competitive effects and effects on rail service. Under some circumstances, those collateral effects could be severely adverse to efficient rail operations. The potential for serious adverse effects argues strongly against further pursuit of the NITL proposal.

A. Scope of the NITL Proposal – Board Questions 1 and 2

The first two questions posed by the Board seek information on how many shippers would be able to obtain mandated switching under the NITL proposal. In its first question, the Board asks parties to identify rail terminals and shippers located within terminal boundaries. In its second question, the Board seeks information on how many additional shippers would be able to obtain switching under the NITL proposal through a Board order and the amount of Class I carrier revenues that are associated with movements that would be subject to mandated switching. As explained by Messrs. Baranowski and Brown, limitations in the CWS data made available by the Board and ambiguities regarding the NITL proposal permit only rough estimates of the scope of the NITL proposal and the traffic that would be directly affected.

First, the Board’s CWS data do not contain information on individual shippers. Thus, rail traffic can be examined only on a movement-specific rather than shipper-specific basis. While an estimate can be made of the movements that would be subject to mandatory switching, individual shippers that would be able to invoke the mandatory switching provisions of the NITL proposal cannot be identified. Similarly, the CWS data do not permit identification of the switching options available to individual shippers.

Second, as to terminals, the NITL proposal does not attempt to define “terminal” or identify terminal locations, and the CWS itself does not identify terminals. Even if an accepted general definition of terminal were available, it would not be feasible to identify and classify all of the locations where railroads interconnect to determine whether or not they fit the definition of “terminal.” Instead, a fact-specific inquiry by the Board would be required with respect to each potential terminal location. Under ICC and Board precedent, the Board would need to examine and weigh the facts and circumstances relating to the transportation at issue at each location to

make this determination.² Absent these individual inquiries, it is not possible to say which shippers or movements potentially subject to NITL's proposal might be located in terminal areas.

Third, the NITL proposal appears to contemplate that switching could be mandated for shippers whose facilities are located within 30 air-miles of a working interchange with another rail carrier. It is possible to identify individual rail stations and to draw a circle with a 30-mile radius around those stations. However, the available data do not indicate where a shipper's facility is located relative to the rail station, and therefore do not indicate whether the shipper's facility itself is within 30 miles of the working interchange. A shipper's facility may be located several miles from a rail station.

Fourth, the NITL proposal would mandate switching where there "is or can be a working interchange." NITL Proposal at 7. The available data permit identification of junction points between railroads, but the data do not show whether the junction is or can be a working interchange. Moreover, the NITL's proposal is vague as to what might be considered a "working" interchange.

² See, e.g., *Midtec Paper Corp. v. Chicago & N.W. Transp. Co.*, 3 I.C.C. 2d 171, 179 ("The questions of what is a terminal and what is switching are factual ones requiring consideration of all the circumstances surrounding a particular case."), *aff'd sub nom. Midtec Paper Corp. v. United States*, 857 F.2d 1487 (D.C. Cir. 1988). Factors relevant to this individualized determination include how the track at issue is used, whether operations take place within railroad yard limits and whether service is performed within a cohesive commercial area. See *Rio Grande Indus., Inc. – Purchase and Related Trackage Rights, Soo Line R.R. Co. Line Between Kansas City, MO and Chicago, IL*, Docket No. 31505, 1989 WL 246814 at 9 (ICC served Nov. 15, 1989) ("The presence of team tracks, freight houses or assembly facilities has also been given significant weight.") (citing *Chicago, M., St. P. & P.R.R. Co., Debtor (Richard B. Ogilvie, Trustee) v. Iowa Northern Railway Company* (not printed), Docket No. 30509 (ICC served November 21, 1984); see also *Delaware & Hudson Ry. and N.Y. D.O.T.—Exemption for Use of Terminal Facilities*, FD No. 29908, at 3 (I.C.C. served Nov. 10, 1982) ("the determination of whether the involved track is indeed a terminal facility turns upon our examination of both the physical description of the property and the operations to be performed, and the use to be made of the track.").

Fifth, the NITL proposal would deem a shipper to be eligible for mandated switching if the incumbent rail carrier “handled 75 percent or more of the freight volume transported of the movement(s) for which such switching is sought for the twelve month period prior to the petition seeking such switching.” NITL Proposal at 67. The numerous problems with the NITL’s 75 percent presumption are discussed later in these comments. What is important here is that the CWS do not provide data that would support an analysis of how the 75 percent presumption would apply because the CWS includes only rail movements. Without knowing how much traffic moves by a mode other than rail, it is impossible to determine whether 75 percent of the total traffic moves on the incumbent railroad.

Sixth, there are several ambiguities in the NITL proposal that make the scope of its application uncertain. For example, the temporal scope of a mandated switching order is not addressed in the NITL proposal. Would a mandated switching order apply to only a single shipment or to shipments over a prescribed period of time, such as a year? Further, would a switching order apply to the portion of traffic that the incumbent did not handle before the switching order or to new traffic to or from different points? Similarly, the NITL proposal would appear to apply to contract and exempt traffic even though the Board does not have jurisdiction over those movements.

Notwithstanding these data limitations and ambiguities in the NITL proposal, Messrs. Baranowski and Brown have developed an order of magnitude estimate of the broad impact that the NITL proposal would have. As described in their verified statement, Messrs. Baranowski and Brown reviewed the 2010 CWS to identify those stations, by standard point location code (“SPLC”), that were served only by a single Class I carrier and therefore would, if the shipper “facilities” were located at the stations, satisfy the first prong of the NITL proposal. For the

reasons noted above, Messrs. Baranowski and Brown were not able to determine which of the identified stations were within “terminals,” but they were able to identify those stations served by a single Class I carrier that were also within 30 air miles of a junction with another railroad. Out of a total of 6,749 stations in the 2010 Waybill Sample data served by a single Class I carrier, 3,419, or 50.7% were within 30 miles of a junction with another railroad. In other words, by this measure the NITL proposal has the potential for introducing mandatory switching at approximately half of the stations now served only by a single Class I carrier.

This estimate understates the number of stations that could be affected by the NITL proposal. Messrs. Baranowski and Brown included on their list of affected stations only those stations where the CWS data showed traffic originated or terminated by a single Class I carrier. Many stations that were excluded because the CWS data show service by more than one carrier would nonetheless have shippers that would be covered by the NITL proposal because, while the *station* is served by more than one carrier, shipper and receiver facilities served through that station are served by only a single Class I carrier.

As a second step in their analysis, Messrs. Baranowski and Brown analyzed the CWS data to develop an order of magnitude estimate of the number of revenue carloads associated with the stations they identified that could potentially qualify for mandated switching under the NITL proposal. As explained in their statement, Messrs. Baranowski and Brown excluded intermodal traffic from their car count because intermodal traffic generally does not originate or terminate on the rail network at shipper facilities. They included contract and exempt traffic because the NITL proposal does not appear to exclude such traffic. Messrs. Baranowski and Brown identified 7.5 million carloads based on the 2010 Waybill Sample. Based on this measure, the NITL proposal could potentially mandate switching for more than 1/3 of the non-

intermodal carloads transported by Class I railroads each year. Messrs. Baranowski and Brown further explain that focusing on the percentage of carloads potentially affected understates the overall impact of the NITL proposal because the affected carloads would tend to produce higher than average contribution.

In short, while the data limitations and ambiguities in the NITL proposal make it impossible to generate a precise impact estimate, Messrs. Baranowski and Brown's analysis demonstrates that the NITL proposal would potentially affect a huge volume of traffic both in absolute terms and as a percentage of the total rail traffic carried by the Class I railroads.

B. How Much of a Rate Reduction and Corresponding Loss of Revenue Could Be Expected – Board Question 3

The Board's third question is in three parts: how much would rates decrease based on the commenter's assumed access pricing methodology (since NITL offered no proposal); how much revenue would the Class I carriers lose; and would increased traffic offset revenue losses. The Board's question on likely rate reductions recognizes that the impact of mandated switching depends to a large extent on the compensation that would be paid to the incumbent railroad for providing the mandated switch. However, the statute leaves determination of compensation for reciprocal switching to the involved railroads in the first instance. 49 U.S.C. § 11102(c)(1). Only if the carriers are unable to reach an agreement may the Board prescribe compensation for a reciprocal switch. AAR takes no position on the outcome of private negotiations among railroads regarding compensation for access and therefore is not in a position to provide estimates of rate reductions that would result from the NITL proposal.

Since AAR is not able to estimate rate reductions or identify with any certainty the traffic that would receive rate reductions, AAR is not in a position to estimate the revenue or

contribution losses that railroads would experience as a result of the NITL proposal.³ However, it is clear that the main objective of the NITL proposal is to obtain rate reductions for a potentially large group of shippers. Reduced rates on the affected movements would reduce railroad revenues, and lower revenues would reduce the amount of capital that railroads are able to reinvest in the rail infrastructure. While it is not possible to predict the level of rail rates or the precise amount of lost revenues, the magnitude of traffic at issue suggests that the effect on total revenue and contribution could be substantial.

In addition, railroad financial performance would be adversely affected because the NITL proposal would substantially increase the cost to provide transportation service. As explained below, Mr. Rennicke shows that many of the rail service and efficiency improvements achieved over the past three decades would be reversed by the introduction of mandated switching, resulting in higher cost to produce the same amount and quality of service that rail carriers provide today. Operating costs would increase with the decline in efficiency and additional infrastructure would be needed simply to avoid congestion caused by the introduction of new interchanges and switching requirements. Since rates would be driven down and costs would be increased, the rail revenues and contribution available to make infrastructure improvements would be substantially reduced.

The Board's third question suggests the possibility that the reduced rail revenues produced by mandated switching might be offset by additional revenues generated by new traffic attracted to the railroads by lower rail rates. Messrs. Eakin and Meitzen explain why there is no

³ As explained by Messrs. Eakin and Meitzen, contribution (revenues above variable cost) is the more appropriate measure of how the NITL proposal would affect railroads. It is impossible to estimate the extent of contribution losses that would result from the NITL proposal for the same reasons it is impossible to quantify the impact on revenues.

reason to believe that increases in traffic would offset losses from the reduced rates and higher cost of service that would result from the NITL proposal.

First, Messrs. Eakin and Meitzen explain that contribution loss rather than revenue loss is the appropriate measure for the impact of the NITL proposal. If rates were, in fact, driven down substantially, as NITL hopes, any new traffic might generate little or no additional contribution. Messrs. Eakin and Meitzen demonstrate that the NITL proposal, if implemented, would reduce contribution available to railroads under any circumstances. Moreover, whatever additional gross revenue the new traffic might generate could be offset by the costs for new infrastructure investments or losses due to underutilized infrastructure.

Second, Messrs. Eakin and Meitzen explain that the decline in service levels that would result from the introduction of new switching and interchange activity could neutralize any benefit that potential new shippers might see in lower rates. Indeed, the decline in rail service could actually drive existing traffic away from the rail network, particularly the traffic of shippers not covered by the NITL mandated switching proposal who could be driven out of markets they currently reach.

C. How Would the Proposal Affect Shippers Who Could Not Obtain Mandated Switching – Board Question 4

The Board's fourth question asks how shippers and receivers who would not have access to mandatory switching under the NITL proposal would be affected. Messrs. Eakin and Meitzen explain that the adoption of the NITL proposal would be a market intervention by the STB that creates winners and losers among rail shippers and would also have broad potential effects in non-transportation markets. As they explain, the proposal would create two basic classes of shippers – shippers able to invoke mandated switching and those who could not. The NITL proposal would effect a reallocation of wealth between the two shipper groups.

The most obvious potential impact is on the rates paid by shippers who could not invoke mandatory switching. As discussed above, AAR is not in a position to predict the precise rate-related impact of the NITL proposal. But as discussed by Messrs. Eakin and Meitzen, some shippers could experience rate increases if market conditions permit. Moreover, the adverse impact on the non-favored shippers would go beyond the possibility of rate increases. Shippers who could not invoke mandatory switching would be harmed in at least two other important ways.

First, such shippers would suffer from the declines in service quality resulting from the NITL proposal without receiving any offsetting benefits in the form of reduced rates. Second, these shippers could be harmed in competing with the favored shippers in the shippers' downstream markets. The favored shippers may be able to attract business away from the excluded shippers because the favored shippers' rates would be artificially reduced through mandated switching. The shippers that could not invoke mandatory switching would potentially be forced to reduce their margins, to the extent they are able to do so, or look for business in other markets, potentially incurring even higher transportation costs. These collateral impacts create the likelihood that the NITL proposal would distort not only the market for rail transportation but the markets in which shippers compete as well.

D. How Would the Proposal Affect Network Efficiency – Board Question 5

The Board's fifth question is the most important one from the standpoint of the broad public interest. The Board's fifth question recognizes the unintended consequences that could flow from adoption of the NITL proposal and the likelihood that those unintended consequences would substantially dwarf any short-term benefit for the group of shippers obtaining artificially reduced rates. It would make little sense for the Board to adopt new rules that favor a discrete group of shippers without advancing any identifiable public interest if the effect of those rules is

to harm other shippers and other users of the rail network and to increase overall transportation costs. The U.S. rail network is the envy of the world precisely because it is so efficient and responsive to the needs of shippers. The Board should be very reluctant to take measures intended to benefit a select group of shippers that would put at risk the efficiency gains of the past three decades that provide benefits today for all users of the rail network.

Several of AAR's member railroads submitted detailed evidence in Ex Parte No. 705 on the potential impact of mandated switching on their networks and are submitting additional evidence in their opening comments in this proceeding.⁴ AAR's evidence on this important issue is contained in the verified statement of Mr. Rennicke. Mr. Rennicke's Verified Statement provides the Board with the basis for assessing the potential impact of the NITL proposal on rail operations and service quality. As Mr. Rennicke explains, the NITL proposal would reverse years of progress since the Staggers Act in rationalizing facilities and streamlining rail operations.

Mr. Rennicke explains that much of the improvement in railroad service and financial performance over the last several decades can be traced directly to the railroads' ability to streamline and rationalize their networks. Rennicke Exh. III-1 sets out the numerous factors that have allowed railroads to provide more efficient, safer and more reliable transportation service. Rail productivity has increased dramatically as railroads have been able to move more traffic over a network of high-density lines with fewer inputs and work events per shipment, as shown in Rennicke Exh. III-5. A key feature of that rationalization process was the elimination of unnecessary interchanges with other railroads and the accompanying reduction in switching and car handling activity. *See* Rennicke Exh. III-3.

⁴ See, e.g., Comments of Union Pac. R.R. Co., EP No. 705 (filed April 12, 2011); Comments of Norfolk S. Ry. Co., EP No. 705 (filed April 12, 2011).

As Mr. Rennicke discusses, the NITL proposal would reverse that progress by reintroducing unnecessary interchanges and car handling activities. In Section V of his verified statement, Mr. Rennicke describes in detail what must occur to implement new switching activity and the broad range of circumstances under which a new interchange might be required as a result of the NITL proposal. As Mr. Rennicke explains, a simple and straightforward hand-off of traffic between two railroads in or near urban areas, where most reciprocal switching takes place, is rare. Each new interchange scenario would raise challenges and complications unique to the specific circumstances at issue.

The NITL proposal is based on a flawed premise that interchanging traffic through reciprocal switching can be easily accomplished so long as the interchange occurs within a “reasonable distance” of a shipper’s facility. Under the NITL proposal, the shipper seeking a mandatory switching order need only satisfy the market dominance and reasonable distance presumptions, and the railroad has the burden of showing the infeasibility of the interchange. Given the wide variety and complexity of individual circumstances, such an approach is inappropriate and could well become unmanageable.

The adverse consequences of mandated switching would be widespread. Rennicke Exh. VI-1 shows that the NITL proposal would undermine all of the factors that allowed railroads to achieve improvements in rail transportation service over the past three decades. Even if the new interchanges could be carried out without unanticipated failures or problems, use of the new interchanges would require added time, effort, and other resources. The additional time would create delays that can lead to congestion in areas where traffic density is high. The new switches would consume capacity in yards, creating further risk of congestion. In Section VI.A of his verified statement, Mr. Rennicke provides several examples demonstrating how mandated

switching would degrade yard efficiency. Streamlining yard operations and rationalizing yard capacity have been key factors that have enabled railroads to provide more efficient and reliable service, and the NITL proposal would severely impact railroads' ability to manage their yard operations efficiently.

Moreover, each new activity that is required in order to carry out the mandated interchange would give rise to the risk of a failure. By introducing new activity that entails a risk of failure, rail transportation would become less reliable. Rennicke Exh. VI-15 shows how the unnecessary addition of car-handling activities increases dramatically the chance that a railroad will be unable to meet its planned service for a particular carload. Shipper surveys have repeatedly shown that reliability of transportation service is critical. But if shippers could order railroads to switch traffic to other railroads at the shipper's will, railroads would lose some control over their ability to plan traffic flows, establish scheduled service, efficiently block cars to reduce subsequent yard activity, plan yard capacity utilization, and other operating activities that affect service quality and reliability. Mr. Rennicke presents an example in Exh. VI-18 that illustrates how mandatory switching orders would interfere with railroads' ability to build bypass blocks, which has enabled railroads to reduce car handling and provide more reliable service. In addition, Mr. Rennicke explains in Section VI-H of his verified statement that improvements in the safety of rail operations for railroad employees achieved through years of effort could be compromised.

Mr. Rennicke explains that many of the improvements in rail operations and efficiency gains that have been achieved over the past three decades resulted from consolidation of facilities where switching and interchanges occur and rationalization of traffic routes. This consolidation allowed railroads to eliminate yards and yard tracks and to streamline interchanges. As Mr.

Rennicke explains in Section VI-E of his verified statement, the NITL proposal would undermine those efforts. Railroads would have significantly less ability to forecast their use of yard capacity. Railroads would have less certainty as to when switching for particular shippers would need to be performed and therefore less ability to plan for the utilization of capacity. Yard tracks and sidings that were eliminated in the move toward streamlined operations might be needed again to accommodate the less predictable traffic flows. But an important incentive to make the necessary capacity investments would be lacking since the capacity would be used to facilitate movement on another railroad. Moreover, shifts in traffic patterns as a result of the NITL proposal could lead to the underutilization of existing facilities. Railroads could be reluctant to eliminate these underutilized facilities, however, because of uncertainty about whether any reduction in traffic would be permanent.

The inevitable result of the added complexity and reduced predictability of traffic flows would be to make rail service less reliable and to increase the risk of congestion. It is difficult to predict precisely where congestion would result or how serious the congestion problems would be in particular areas. But Mr. Rennicke explains that recent experience shows how quickly service problems in discrete geographic areas can escalate into a decline in rail service across the rail network.

To illustrate the potential impact of the NITL proposal, Mr. Rennicke estimated the impact on a variety of operating measures currently used to evaluate railroad performance of a hypothetical 25% diversion of the estimated 7.5 million carloads to which mandatory switching may apply. He determined that, if the NITL proposal produced that quantity of diverted traffic, operations on the national rail network would look much more like they did in the late 1990s than they do today. The desire by some shippers to obtain artificial rate reductions does not

justify the substantial risks to all users of the rail network that would be created by the NITL proposal, nor can it justify turning back the clock on years of progress in creating a highly efficient and shipper-responsive rail network.

III. Legal and Policy Framework for Considering NITL’s Proposed Change to the Board’s Competitive Access Regulation

While AAR recognizes that the Board’s primary objective at this time is to develop empirical data on the possible impact of the NITL proposal, AAR believes that any review of the available data must be carried out with an understanding of the limits that Congress established on the authority of the Board to make structural changes in the railroad industry through its regulation of competition. When Congress enacted the Staggers Act, it knew from experience that the prior open-routing regime – under which railroads were required to maintain multiple possible routings between a given origin and destination – had created an inefficient and financially unstable railroad network. Congress did not intend for the agency to promote a new regime of open-routing through aggressive switching regulation. Nor did Congress intend for the agency to use its limited control over routing and switching decisions as a backdoor way of regulating rail rates or putting artificial caps on differential pricing.

When the ICC adopted competitive access rules after Staggers, it properly concluded, with support from the courts, that Congress intended for the agency to use its authority to regulate competitive access to address specific instances of railroad misconduct, and not to restructure the rail industry to provide multi-carrier access on demand. This limited view of the extent to which regulators should intervene is flatly at odds with NITL’s proposal to use sweeping presumptions, unrelated to competitive misconduct, to make mandatory switching widely available. The existing regulations are still in place because there has been no change in law or policy that would suggest that Congress’ original intent has changed. Even if regulatory

change were appropriate – and AAR does not believe that any valid reasons have been presented for modifying the existing regulations – the change would have to focus on specific instances of railroad conduct or specific problems in the operation of the market to comply with Congress’ expectations. The Board’s exercise of authority under its competitive access rules would have to be based on something more than the mere existence of market power by a railroad. The Board should not consider regulatory changes that would produce broad, presumption-based competitive access regulations that are simply designed to drive rail rates down through a restructuring of the industry.

A. Congress Did Not Intend for the Board to Use Reciprocal Switching as a Tool to Restructure the Railroad Industry.

With the Staggers Rail Act of 1980⁵ and the ICC Termination Act of 1995,⁶ Congress established a carefully designed regulatory regime in which market forces were to be the driving force and regulation was to be limited as much as possible. The Board was required to “allow, to the maximum extent possible, competition and the demand for services to establish reasonable rates for transportation by rail.” 49 U.S.C. § 10101(1). A major goal of the regulatory framework established was to “minimize the need for Federal regulatory control over the rail transportation system.” *Id.* 10101(2). The new regulatory framework was designed to preserve a careful balance between reliance on market forces to establish reasonable rates and limited reliance on regulation to protect shippers from the abuse of market power.⁷

⁵ Pub. L. No. 96-448, 94 Stat. 1895 (1980) (“Staggers Act”).

⁶ Pub. L. No. 104-88, 109 Stat. 803 (1995) (“ICCTA”).

⁷ See, e.g., *MidAmerican Energy Co. v. STB*, 169 F.3d 1099, 1105 (8th Cir. 1999) (“*MidAmerican*”) (“Congress believed that free competition for rail services would ensure that consumer demand dictated the optimal rate level, while facilitating enough long-term capital investment to maintain adequate service. Congress was also mindful, however, that the free market would protect consumers only if there was ‘effective’ competition. Therefore, the new

Elimination of Open Routing. The partial deregulation of the railroad industry was a response to an unworkable industry structure that had been created through decades of overly intrusive regulation. Under pre-Staggers regulations, railroads were largely prevented from making rate decisions that were responsive to market forces and were not permitted to rationalize their routes to handle traffic in the most efficient manner. As the D.C. Circuit recognized in the *Baltimore Gas & Electric* decision, “[b]y the mid-1970s, the railroad industry had evolved into a system characterized by ‘open routing’ and ‘rate equalization’” under which “through routes were created on practically all possible combinations of railroad tracks between two points” and “all routes between the same two points – including single line routes – were offered to shippers at the exact same rates, without regard to the actual cost of providing the service.”⁸ The inability of railroads to choose which routes to use, which interchanges to make, when to offer through rates, and when to use more efficient single line service were key features of the pre-Staggers industry structure.

Congress repudiated the pre-Staggers regulatory approach. Under the new regulatory scheme, the agency would not impose its view as to the proper structure of the railroad industry but would address unreasonable rates resulting from railroad market power and competitive abuses resulting from railroad misconduct. In the years following the Staggers Act, the ICC, and subsequently the Board, repeatedly interpreted their authority to order competitive access not as a tool to restructure the industry but as a means to address specific instances of market failure resulting from anticompetitive railroad conduct. The appellate courts repeatedly upheld these agency interpretations.

enactments included provisions allowing regulatory intervention where competition would not control prices”).

⁸ *Baltimore Gas & Electric Co. v. United States*, 817 F.2d 108, 110 (D.C. Cir. 1987).

The first major agency action implementing the new statutory regime governing rail competition was the elimination of the so-called DT&I conditions that required merging railroads to keep open existing junctions and gateways and to allow shippers to route traffic over routes and gateways of their choice. In *Traffic Protective Conditions*, 366 I.C.C. 112, 119 (1982) (“Conditions”), *aff’d in relevant part sub nom. Detroit, T. & I. R.R. Co. v. United States*, 725 F.2d 47 (6th Cir. 1984) (reversing portion of the decision making revocation of the conditions retroactive)), the ICC found that the DT&I conditions were incompatible with Congress’ intent that markets, not regulation, should govern railroads’ commercial decisions: “[The Staggers Act] has emphasized the need for rail carriers to have flexibility to make individual ratemaking and routing choices.” The ICC concluded that the DT&I conditions “prevent market forces from efficiently allocating railroad resources.” *Id.* at 130.

Adoption of Competitive Access Rules. Shortly after eliminating the DT&I conditions, the ICC adopted *Intramodal Rail Competition*,⁹ the current competitive access rules. Under those rules, the ICC and now the Board will order reciprocal switching or prescribe a through route only to address situations where a carrier abuses its market power by extracting unreasonable terms or by rendering inadequate service.¹⁰ The ICC concluded that access remedies should be addressed to a narrow set of circumstances – specific instances of competitive abuse by carriers – and the courts agreed. In *Baltimore Gas & Electric*, the D.C. Circuit rejected shipper arguments on an appeal from the ICC’s new competitive access rules that the ICC should treat the statute as requiring open access to rail facilities in a manner similar

⁹ 1 I.C.C. 2d 822 (1985), *aff’d sub nom. Baltimore Gas & Electric*.

¹⁰ See *Midtec Paper Corp. v. Chicago & North Western Transp. Co.*, 3 I.C.C. 2d 171, 181 (1986), *a’ffd sub nom. Midtec Paper Corp. v. United States*, 857 F.2d 1487 (D.C. Cir. 1988) (“Midtec”); *Review of Rail Access and Competition Issues*, 3 S.T.B. 92, 98 (1998). See also 49 C.F.R. § 1144.2.

to the telecommunications industry where “local Bell telephone companies are required to permit all long distance telephone companies equal access to the lines and switching facilities necessary to reach local customers.” 817 F.2d at 115. The shippers contended that “competition” as used in the statute “would most efficiently influence rates . . . if all railroads could, by way of through routes, benefit from all of each other’s tracks and facilities.” *Id.* at 114-15.¹¹ The shippers, according to the court, “would have us direct the ICC to return essentially to its old regulatory regime.” The court emphatically rejected this construction of the statute, noting that there was “not the slightest indication that Congress intended to mandate a radical restructuring of the railroad regulatory scheme so as to parallel telecommunications regulation.” *Id.* at 115.

In the subsequent *Midtec* case, the ICC rejected shipper requests for reciprocal switching and terminal access. The ICC concluded that granting access simply to satisfy “a desire for the service of a second carrier” was not consistent with the statute. 3 I.C.C. 2d at 174. Access remedies, the ICC determined, should be limited to specific instances where a competitive failure had been identified rather than applied broadly based on general criteria such as the presence of only a single railroad. As the ICC explained:

[W]e think it correct to view the Staggers changes as directed to situations where some competitive failure occurs. There is a vast difference between using the Commission’s regulatory power to correct abuses that result from insufficient intramodal competition and using that power to initiate an open-ended restructuring of service to and within terminal areas solely to introduce additional carrier service.

Id.

¹¹ Although the *Baltimore Gas & Electric* court described the shippers’ arguments solely in terms of providing access via through routes, the court’s analysis applies equally to providing access by mandated reciprocal switching as the *Midtec* court subsequently held. The ICC itself recognized that reciprocal switching “is one of several ways in which two or more rail carriers can cooperate to provide a through service.” 3 I.C.C. 2d at 176.

On appeal, the shippers asserted that terminal access and reciprocal switching “were intended by the Congress to increase interrail competition in order ‘to offset the very substantial rate advantages given the railroads’ under other provisions of the Staggers Act.” 857 F.2d at 1505. The court again emphatically rejected this reading of the statute:

If the Commission were authorized . . . to prescribe reciprocal switching or terminal trackage whenever such an order could enhance competition between rail carriers, it could radically restructure the railroad industry. We have not found even the slightest indication that Congress intended the Commission in this way to conform the industry more closely to a model of perfect competition.

Id. at 1507. The statute would not permit the ICC to order open access to shippers simply because they were solely served and would prefer access to an additional rail carrier: “[T]here is no warrant for the view that Congress intended such a radical restructuring of the railroad industry.” *Id.* at 1514. As the court observed, “competition policy is not a matter of regulators handicapping would-be competitors in order to create an evenly matched contest.” *Id.* at 1503.

Bottleneck Decisions Affirm Carrier Routing Prerogatives. The Board confirmed the ICC’s reading of Congress’ intent in the *Bottleneck* decisions.¹² Under the bottleneck rule established in those decisions, a carrier is not required to publish a separate rate for a bottleneck segment of a through route if the carrier already provides single line service from origin to destination or participates in an interline through movement. *Bottleneck I*, 1 S.T.B. at 1066, *Bottleneck II*, 2 S.T.B. at 237. A bottleneck carrier that does not provide single line service can be required to publish a separate rate for its portion of an interline movement only if there is a

¹² *Central Power & Light Co. v. Southern Pacific Transp. Co.*, 1 S.T.B. 1059 (1996) (“*Bottleneck I*”), clarified, *Central Power & Light Co. v. Southern Pacific Transp. Co.*, 2 S.T.B. 235 (1997) (“*Bottleneck II*”), aff’d sub nom. *MidAmerican Energy Co. v. STB*, 169 F.3d 1099 (8th Cir. 1999).

contract covering the non-bottleneck portion of the through movement. *Bottleneck II*, 2 S.T.B. 244-45.

In establishing the bottleneck rule, the Board clearly recognized that granting shippers the ability to force open bottlenecks would be a species of open access. *See, e.g., Bottleneck I* at 1065, 1067. Indeed, it was largely on that basis that the Board denied shippers the ability to do so. The Board noted that the 4R and Staggers Acts had ended the “open-routing” system and that, “as an integral part of Congress’ goal of revitalizing the rail industry, these statutes largely freed carriers to ‘rationalize their route structures making maximum use of efficient routings and eliminating others.’” *Bottleneck I* at 1065 (*quoting Interchange Provisions at Jacksonville, FL, SCL and SRS*, 365 I.C.C. 905, 916 (1982)). The Board determined that “[g]iving the shippers the routing control they seek here would defeat the statutory provisions protecting each railroad’s right to determine, at the outset, which reasonable through routes it will use to respond to requests for service.” *Id.* This, in turn, would deprive carriers of the ability to protect their existing single line and through routes, including their long-hauls. The Board expressly rejected the notion that these statutory factors could be ignored in the interest of manufacturing competition between railroads. As the Board stated, “Congress chose not to provide for the open routing that shippers seek here. To the contrary . . . Congress retained and strengthened the specific statutory provisions allowing carriers to select their routes and to protect their long-hauls.” *Id.* at 1067. The Board also rejected the argument that “the prescription of local rates and requirement for competitive routings would minimize” the need for regulation. To the contrary, “what the utilities propose, in the name of regulatory forbearance, is full regulatory intervention; they seek through regulation to deprive carriers of their statutorily-recognized long-haul and their traditional routing discretion.” *Id.*

The Eighth Circuit affirmed the Board's interpretation of the statutory framework and the bottleneck rules in *MidAmerican*. The court noted the deregulatory focus of the statutory reforms that had done away with "open-routing" and Congress's intention that "market forces would operate in the rail industry as they do in other spheres." 169 F.3d at 1105. Regulation of a railroad's routing decisions should not be used to manufacture competition.

In short, the cases make it abundantly clear that the statutory access provisions cannot be used to restructure competition in the rail industry. Access relief is available to address specific problems that arise in specific circumstances. The Board's current competitive access rules provide that relief is available to remedy specific instances of competitive abuse. If there were a valid alternative to the Board's current competitive access rules, and AAR does not believe that there is, such an alternative would have to be focused on specific problems that justify relief. An approach that seeks merely to create multi-carrier service, like the NITL proposal, would not be permissible under the governing statute.

B. Reciprocal Switching Should Not Be Used as an Alternative Means of Obtaining Rate Relief.

The Board's Notice acknowledges that a primary objective of the NITL proposal is to produce lower rates through the artificial competition that would be introduced by a mandatory switching order. According to the Board, the proposal:

has the potential to promote more rail-to-rail competition and reduce the agency's role in regulating the reasonableness of transportation rates. It could permit the agency to rely on competitive market forces to discipline railroad pricing from origin to destination, and regulate only the access price for the first (or last) 30 miles.

Notice at 2.

Adoption of mandated switching as a backdoor mechanism for providing rate relief would constitute unnecessary, improper, and unwieldy regulatory intrusion into rail carrier

operating decisions. The Board already has a fully developed set of standards and methodologies that have been specifically designed to determine whether a challenged rate exceeds a maximum reasonable level. It would not make sense for the Board to adopt access regulations for the purpose of giving some shippers rate relief that would not be warranted under the Board's existing rate reasonableness procedures. Congress did not intend for the Board to use competitive access regulations to develop a redundant mechanism for lowering rates that shares nothing in common with existing standards or mechanisms for evaluating rates and that is inconsistent with those existing standards.

Indeed, the courts have already concluded that access remedies were not intended by Congress to be used as a mechanism for reducing rates. In *Midtec*, the D.C. Circuit expressly rejected the argument that reciprocal switching and terminal access were “intended to be an alternative means of obtaining rate relief, requiring the Commission affirmatively to move the national rail system toward a regime more like perfect competition, with the attendant benefits of marginal cost ratemaking.” 857 F.2d at 1505.

Moreover, the use of competitive access regulation to provide an indirect form of rate relief would be fundamentally inconsistent with the principles established by Congress to assess the reasonableness of rates. Under the statute, the existence of market dominance is a threshold to assessing the reasonableness of a rate but not a guarantee that rate relief is warranted. Rates charged by rail carriers with market dominance are not necessarily unlawful. The Board must determine whether a rail carrier has market dominance before carrying out a rate reasonableness analysis, but the Board may still find that the rate does not exceed a reasonable maximum rate. By contrast, under the scheme proposed by NITL, a carrier is conclusively presumed to face no effective competition if it has successfully competed for the business or if it receives a certain

margin over variable costs regardless of the value of the service rendered. The carrier's rates are then subject to being reduced through the artificial introduction of another carrier without any additional finding that the rates are unreasonable. As a result, many rates would be forced down that would never be subject to a rate reduction under the Board's rate reasonableness standards.

The availability of mandated switching for shippers who supposedly lack effective competitive alternatives, as proposed by NITL, would also be a repudiation of differential pricing, which is the foundation for the Board's regulation of rail rates. The Board recognizes that railroads must be able to engage in differential pricing if they are to recover the high fixed and common costs of railroad infrastructure. Allowing railroads to engage in differential pricing, with limits provided by the principles of Constrained Market Pricing ("CMP"), is at the heart of the Board's regulation of railroad rates. While many factors determine a shipper's demand for rail service, access to one or more transportation alternatives is often an important factor. Giving shippers served by a single Class I railroad access to another carrier simply because the shipper lacks an effective competitive alternative to the incumbent carrier would limit differential pricing without any regard for CMP principles.

In the *Bottleneck* cases, the Board recognized that forcing railroads to provide service on routes other than those of their choosing would be an indirect and inappropriate way of limiting differential pricing. A carrier that is permitted to provide transportation in single-line service is entitled to charge up to the SAC rate for the entire route. A carrier that is forced to interchange with another carrier, however, is limited to the reasonable rate (or switch charge) it can establish for only the shorter portion of the move. Therefore, as the Eighth Circuit recognized in upholding the Board's *Bottleneck* decisions, opening bottlenecks through regulation "would prevent [railroads] from exploiting bottlenecks and charging rates up to SAC for complete

origin-to-destination service,” thereby undermining their ability to engage in differential pricing.

MidAmerican, 169 F.3d at 1109.

The Board’s suggestion that an expanded use of reciprocal switching for shippers that are now served only by one railroad could “promote more rail-to-rail competition and reduce the agency’s role in regulating the reasonableness of transportation rates” is misplaced. “Competition” as envisioned in the NITL proposal has nothing to do with sound economic principles or “competition” as the concept is used in the statute. No one would suggest, for example, that “competition” would be promoted if a retail firm like WalMart were forced by government mandate to turn over a portion of the space in each of its stores to a competitor, like Target, so that WalMart and Target would “compete” more “effectively.” Similarly, “competition” would not be enhanced if a government mandate required that two grocery stores must be built at each grocery location to ensure that consumers have more than one option. Competition functions by allowing private individuals and firms to respond to market signals in ways they deem to be appropriate. These examples of government intervention in the competitive process would be recognized as distortions of the marketplace that would lead to inefficient market outcomes.

Nor would the NITL proposal reduce the Board’s role in regulating rail rates. When shippers made a similar argument in the context of new bottleneck regulations, the Board had no difficulty recognizing that shippers were not calling for “regulatory forbearance” but instead for “full regulatory intervention.” *Bottleneck I*, at 1067. Likewise, the ICC had no difficulty recognizing the “vast difference” between using access remedies like mandated switching in a targeted fashion to address specific instances of competitive abuse and “using the Commission’s

regulatory power . . . to initiate an open-ended restructuring of the service to and within terminal areas solely to introduce additional carrier service.” *MidTec*, 3 I.C.C. 2d at 174.

C. The Public Interest Is Best Served by a Competitive Access Regime Reliant on Actual Competition Based on Private Investment by Competitors Willing to Put Their Private Capital at Risk.

The Board should not accept NITL’s invitation to engage in economic restructuring of the rail industry. The NITL proposal is based on the false premise that shippers directly served by a single Class I carrier do not benefit from competition. In fact, railroads are often subject to competition from other transportation modes as well as strong product and geographic competition that effectively constrains any exercise of market power, even as to shippers directly served by a single Class I carrier. Increasingly, railroads use transloading to expand their reach into areas they do not serve directly and to win business from other railroads as well as trucks. In a recent petition by AAR to modify the Board’s market dominance rules, AAR described how competition in wholesale power markets provides effective constraints on rail rates for coal in many cases, particularly in light of recent developments in natural gas markets. Rail rates for other transportation that is traditionally subject to regulation is similarly subject to strong product and geographic competition. The Board did not eliminate consideration of product and geographic competition from market dominance proceedings because those competitive forces are not effective constraints on rail rates but because of the perceived difficulty in assessing evidence of product and geographic competition.

Competition based on market forces has led and will lead to economically rational switching arrangements. The Board has recognized that railroads behave in an economically rational manner, and therefore railroads will enter into voluntary switching arrangements when it

makes economic sense to do so.¹³ If a carrier other than the incumbent railroad can provide more efficient service at a lower cost, the incumbent railroad has a clear incentive to allow that alternative service to occur through a voluntary switching arrangement or through joint routes. These voluntary arrangements promote efficient railroad pricing and efficient railroad operating practices. The Board's competitive access regulations should be reserved for cases where the market is not properly inducing the voluntary switching arrangements that would be expected in a competitive market.

The public interest is best served by allowing the market to determine when switching should occur. Reliance on actual competition by service providers that have put their private capital at risk produces the most efficient allocation of resources and results in the most efficient service. Congress understood that the regulator should avoid interfering with market signals that private investors rely on to make investment decisions. Indeed, inappropriate access regulation could seriously undermine incentives that railroads have to put their capital at risk. If investors know that the infrastructure they create by putting their capital at risk might be made available to a competitor, the incentive to make that investment could be reduced or eliminated. Similarly, if a railroad cannot make reasonable estimates of traffic flows on its network because the regulator might establish artificial conditions that promote a diversion of traffic, the railroad might not seek to expand capacity.

Congress wisely recognized that markets, not regulators, make the most efficient choices regarding prices, investments and the allocation of resources and that the public is best served by

¹³ See, e.g., *Western Resources Inc. v. STB*, 109 F.3d 782, 787 (D.C. Cir. 1997) (affirming that carriers can be expected to behave in an economically rational manner: “if an independent origin carrier could transport coal at a lower incremental cost, then the bottleneck railway would have an incentive to choose that carrier over its own, affiliated carrier, just as firms in the rest of the economy make ‘make or buy’ decisions for all elements of their production.”).

allowing the markets to function without regulatory interference unless there is a problem in the market that warrants intervention.

IV. Defects in the NITL Proposal

The goal of the NITL proposal is to produce lower rates for a group of shippers served today by only one rail carrier by artificially expanding those shippers' access to multiple rail carriers. The NITL proposal is not addressed to specific instances of competitive abuse. Under the NITL proposal, the precondition to relief is the supposed existence of market power, not any abuse of market power. A shipper seeking access to another rail carrier would not be required to demonstrate any other justification for access, such as inadequate service. The NITL proposal seeks broad structural changes in the railroad industry, an objective that is not consistent with the limited role that Congress provided for regulation of the railroad industry.

In addition to this fundamental flaw, the design of the NITL proposal is also defective. NITL proposes to implement its overhaul of the Board's access regulations through conclusive presumptions that would be used to determine whether there is effective inter- or intramodal competition for movements at issue and whether switching could occur within a "reasonable distance" between the shipper's facilities and a switching location. Even if it were permissible to mandate switching merely upon a showing of the lack of effective competition, which it is not, the market power presumptions proposed by NITL do not say anything meaningful about the existence of effective competition. As to the "reasonable distance" presumptions, NITL's proposed 30-mile presumption would as a practical matter become the default presumption and thereby allow mandated switching outside of terminal areas, contrary to Congress' intent. These issues are discussed more fully below.

A. NITL's Market Power Presumptions Are Misplaced and Unworkable.

The basic premise of the NITL proposal is that mandatory switching should be available to shippers served by a single Class I carrier and located within a “reasonable distance” of an interchange upon a showing of market dominance – that is, upon a showing that there is “an absence of effective competition from other rail carriers or modes of transportation.” 49 U.S.C. § 10704(a).¹⁴ Nothing in the governing statute suggests that the mere existence of market dominance entitles a shipper to regulatory intervention. Indeed, the statute is clear that the market dominance requirement is only a threshold for allowing the Board to consider whether the rates charged by a rail carrier exceed reasonable maximum rates.¹⁵ Congress did not give the Board authority to reduce a railroad’s rates, directly or indirectly, simply because the railroad has market dominance over the transportation at issue.

Moreover, the Board’s rate reasonableness standards acknowledge that railroads must be allowed to engage in differential pricing, which by definition means that they are entitled, within limits, to charge shippers with greater demand for service higher rates. Shippers that lack a transportation alternative to the incumbent railroad may have a higher demand for the incumbent’s service, and the Board’s regulatory regime recognizes that a railroad may set prices based on that higher demand for service so long as the railroad does not seek to have the shipper subsidize other transportation or pay for inefficiencies. By imposing reciprocal switching for purposes of obtaining lower rates based solely on the existence of market dominance, the NITL proposal directly repudiates the principle of differential pricing that is the foundation of the Board’s rate regulation standards.

¹⁴ See, e.g., NITL Petition at 8.

¹⁵ In the rate context, market dominance is the beginning of the inquiry rather than the end. The Board does not have jurisdiction to regulate rates absent market dominance. 49 U.S.C. § 10701(d).

NITL’s assertion that its proposal to limit switching to situations where the railroad has market dominance is an “attempt to accommodate the interests of carriers,” NITL Petition at 42, is particularly disingenuous. If a shipper already has access to multiple carriers, it has no reason to seek any regulatory intervention because it already has the benefit of direct competition. The supposed limitation of the proposal to shippers served by a single Class I carrier is not a meaningful limitation on the scope of the proposal. Moreover, the NITL proposal relies on flawed presumptions of market power. Neither the proposed R/VC threshold nor the proposed market share percentage is a valid basis for determining whether the incumbent railroad faces effective competition from other transportation providers.

1. Use of an R/VC Threshold Would Be Arbitrary.

NITL proposes that market dominance would be conclusively presumed if the incumbent’s rate for the shipment for which switching is sought exceeds an R/VC ratio of 240%.¹⁶ NITL defends the use of a 240% R/VC threshold on grounds that the average R/VC ratio on movements by Class I railroads for shippers with R/VC ratios above 180% is close to 240%. NITL Petition at 48. But NITL does not even attempt to explain why it would be reasonable to assume that a shipper lacks an effective competitive alternative simply because the rate paid by the shipper exceeds the average R/VC paid by shippers whose rates are potentially subject to rate regulation by the Board. A particular shipper may well have an effective transportation alternative whose costs permit the incumbent railroad to charge rates that generate R/VC ratios above the average R/VC ratio for other shippers. There is no meaningful connection between the proposed R/VC threshold and the existence or lack of effective competition.¹⁷

¹⁶ NITL Petition at 8.

¹⁷ NITL refers to the result of the rate reasonableness case in *W. Fuels Inc. & Basin Elec. Power. Coop. v. BNSF Ry. Co.*, No. 42088 (STB served June 5, 2009) to support its view that a

Moreover, the economists retained by the Board to study competition in the railroad industry recognized that presumptions of market dominance based on R/VC ratios are not valid. The authors of the Christensen Study were highly critical of using R/VC ratios as a measure of market power or a proxy for the exercise of market power.¹⁸ They concluded that the R/VC ratio “is weakly correlated with market structure factors that affect shipper ‘captivity,’ and is not a reliable indicator of market dominance.” *Id.* at ES-5. As they explained, “[t]he R/VC ratio is problematic as an indicator of market-dominant behavior as it inextricably combines local market structure factors with various other cost and demand-related factors.” *Id.* at 11-25. As they noted, “much of the R/VC variation is related to factors other than market structure features that determine shipper captivity.” *Id.* at 11-26. These factors make R/VC ratios an unreliable indicator of market power and led the Christensen Study to conclude that “regulatory reforms that would establish R/VC tests as the sole quantitative indicator of a railroad’s market dominance are not appropriate.” *Id.* at ES-14.

The unreliability of R/VC ratios as a measure of market power is magnified by the use of unadjusted variable costs regardless of the nature of the traffic. For example, TIH commodities generally have higher R/VC ratios than other traffic, in part due to the extra costs associated with handling those commodities safely and compliance with more stringent safety regulation, and in part due to the high risks associated with transporting such commodities, none of which is

shipper must lack transportation alternatives if the shipper pays rates that generate more than 240% of the rail carrier’s variable costs. According to NITL, if a rate near 240% of one railroad’s variable costs was found to be the maximum reasonable rate for one shipper, then other shippers paying a rate above 240% of a rail carrier’s variable cost must be without effective transportation alternatives that limit rates to reasonable levels. The logical flaw in this reasoning is obvious. The maximum reasonable rate in the case of a particular shipper turns on circumstances unique to the shipper and says nothing about the circumstances of other shippers.

¹⁸ Laurits R. Christensen Associates, Inc., *A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals that Might Enhance Competition: Revised Final Report* (2009).

reflected in the variable cost calculation using system average URCS. Other types of commodities also have specific characteristics that affect variable costs but are not recognized by system-average URCS.

Using an R/VC ratio to conclusively establish the lack of effective competition would also be inconsistent with the statute. In the rate regulation context, the statute precludes the Board from finding that market dominance exists if a challenged rate produces an R/VC ratio of less than 180%. 49 U.S.C. § 10707(d)(1)(a). The statute also directs that an R/VC ratio equal to or greater than 180% “does not establish a presumption that” a rail carrier “has or does not have market dominance.” 49 U.S.C. §10707(d)(2). For movements with R/VC ratios above 180%, the existence of market dominance must be assessed based on a review of the circumstances relating to the particular movement. Indeed, shortly after Congress enacted the Staggers Act, the ICC concluded that market dominance determinations should not be based on presumptions using R/VC ratios. *See Market Dominance Determinations*, 365 I.C.C. 118, 120 (1981).

The Board indicated in its July 25, 2012 Notice that an alternative to the use of a 240% R/VC threshold would be to use a railroad’s 4-year average RSAM benchmark as the threshold for mandatory switching. After the Board issued its July 25, 2012 Notice, the Board used the RSAM in a pending rate reasonableness case to determine the existence of effective competition. *See M&G Polymers USA, LLC v. CSX Transp., Inc.*, STB Docket No. 42123 (served Sept. 27, 2012) (“*M&G Polymers*”).¹⁹ AAR filed comments as amicus in the M&G case and explained why AAR does not believe that an RSAM-based approach to market dominance is permissible or

¹⁹ To determine whether the carrier had market dominance, the Board compared a “limit price” for feasible alternative transportation, expressed as an R/VC ratio, to the RSAM for the carrier. If the limit price exceeded RSAM, the Board concluded that alternative transportation options did not effectively constrain rail prices and found the carrier market dominant.

appropriate.²⁰ But whether or not RSAM is used to determine market dominance in rate reasonableness cases, there is a fundamental difference between using RSAM in a rate reasonableness case to determine market dominance and using RSAM in the context of competitive access regulation to establish eligibility for a mandatory switch. In the context of rate reasonableness, the RSAM is used only as the threshold for determining whether the Board has authority to consider the reasonableness of the rate at issue. It is not the basis for providing rate relief. However, if the RSAM were used in connection with the NITL proposal, RSAM would become the primary constraint on rates, since switching could be mandated for any movement generating rates that exceed RSAM.

There would be no basis for using RSAM as an effective constraint on rates and it would be inappropriate to do so. RSAM is by definition an average R/VC ratio that must be charged to achieve revenue adequacy. But since it is an average, and it is clear that there are movements that generate revenues that are less than the RSAM, a railroad must be able to charge some movements rates that exceed the RSAM to have any chance of achieving revenue adequacy. If RSAM (or some other arbitrary R/VC ratio) were used as an effective cap on rates, railroads would not be able to generate the revenues they need to achieve and sustain long-term revenue adequacy.

2. NITL’s Presumption of a Lack of Effective Transportation Alternatives Based on 75% of Freight Volume Makes No Sense and Would Be Subject to Manipulation.

NITL also proposes that market dominance would be conclusively presumed if the Class I carrier that serves a shipper handles “75% or more of the freight volume transported for a movement for which competitive switching is sought in the twelve months prior to the petition

²⁰ Comments of the Association of American Railroads, *M&G Polymers* (filed Nov. 28, 2012).

seeking switching.” NITL Petition at 8. The Board construed this proposal as relating to volumes for individual origin-destination pairs. EP 711 Notice at 6. But a shipper may use a single transportation provider to move traffic to a specific destination for many reasons that are unrelated to the existence of railroad market power or the availability of transportation alternatives. If a shipper is satisfied with the service it receives from a single transportation provider, the shipper would have no reason to divide its business among several providers. Indeed, dividing business among multiple transportation providers could present logistical problems and add unnecessary costs.

Therefore, a railroad’s share of transportation for a given O-D movement does not, on its own, say anything about a railroad’s possible market power over the transportation at issue. Any number of circumstances that arise naturally in competitive markets could result in a railroad having greater than a 75% share of transportation and holding on to that market share over time. For example, the railroad may have won most or all of a shipper’s business by competing on price or through superior service. A railroad may have won a shipper’s business through all-or-nothing competitive bidding that resulted in a contract covering the shipper’s movements between specific origins and destinations.

A railroad’s market share may also simply reflect the comparative advantage of the railroad for the type of transportation in question. Rail transportation may be the only feasible option for transportation between a given O-D pair due to distance or lack of barge access at both origin and destination. Even if rail is the only feasible option, it is nonetheless possible that the price charged by the railroad is effectively constrained by other market forces, *i.e.*, the ability of the shipper to ship to other destinations from the same origin or the ability of the receiver to

obtain product from other origins. The NITL proposal would preclude the Board from considering product and geographic competition.

Aside from the fact that a 75% share of transportation has little bearing on whether a railroad has or is exercising market power, there are other obvious problems with this proposed criterion. For example, under NITL's proposal, the presumption of a lack of effective competition would apply regardless of the rate being charged for transportation. To the extent NITL's 240% R/VC presumption had any logical basis, it was that the existence of effective competition can be inferred from the level of the rates charged. NITL's 75% market share presumption implicitly assumes that rate levels do not matter. Indeed, under NITL's proposal, a 75% market share would indicate the lack of effective competition even if the rates were below the Board's jurisdiction threshold. But the jurisdictional threshold is based on a presumption that there is effective competition if rates are below 180% of the rail carrier's variable costs. NITL's proposal would appear to allow shippers to obtain mandated switching on movements for which the Board would have no authority to prescribe rates.

Indeed, it is likely that the 75% transportation share presumption would swallow the 240% R/VC threshold and result in mandated switching regardless of the R/VC level of the rates charged. There are likely to be many situations where a shipper whose facility is served only by a single railroad will use that railroad to provide 100% of the transportation between that facility and various destinations. Under the NITL proposal, that shipper would be entitled to mandated switching regardless of how high or low a rate it is paying.

Finally, because the shipper controls the mode of transportation used, shippers could easily manipulate their shipment patterns to satisfy the 75% requirement. A shipper could establish the conditions necessary to support a mandatory switching order simply by providing

the rail carrier with more than 75% of its business for a year or by entering into a requirements contract for movements between specific origins and destinations.

B. NITL’s “Reasonable Distance” Presumptions Are Improper

NITL also proposes to use two conclusive presumptions to determine when switching can occur within a “reasonable distance” of the shipper’s facilities. The first presumption is that the mandated switch would be within a “reasonable distance” of the shipper’s facilities if the shipper’s facilities are within the boundaries of a “terminal” where switching regularly occurs between the two rail carriers. The second presumption is that switching could occur within a “reasonable distance” if the interchange would occur within a 30-mile radius of the shipper’s facilities. NITL Petition at 8.

The NITL proposal acknowledges that there is no established definition of a “terminal” for purposes of applying its first “reasonable distance” presumption. In fact, as noted previously, the case law is clear that the existence of a terminal is based on a fact-specific inquiry, in which the Board must examine and weigh the facts and circumstances relating to the transportation at issue. As a result of the uncertainty regarding the existence of a terminal and the need to address a range of factual issues to determine whether a shipper’s facilities are within the boundaries of a terminal, it is likely that the 30-mile presumption would become the default means of establishing whether an interchange can occur within a “reasonable distance” of a shipper’s facilities under the NITL proposal. But using a 30-mile radius to determine whether the Board will order switching is inconsistent with the statute.

First, pre-Staggers precedent addressing reciprocal switching and the context in which Congress provided authority to order reciprocal switching in the Staggers Act demonstrate that Congress intended that reciprocal switching would be limited to terminal areas. NITL’s 30-mile radius is unrelated to service provided within a terminal.

Before the Staggers Act, the extent of the agency's authority was uncertain with regard to reciprocal switching.²¹ The Staggers Act expressly authorized the agency to order reciprocal switching under appropriate circumstances, but it placed this authority within the more general provision covering "Use of Terminal Facilities." 49 U.S.C. § 11102.

A number of pre-Staggers Act cases addressed reciprocal switching in the context of disputes over switching tariffs, where it was alleged that a carrier was providing its reciprocal switching service in a discriminatory manner.²² It is clear from those cases that reciprocal switching was understood to be an activity that takes place within terminal areas. The ICC described reciprocal switching as "connection-terminal switching" and stated that such service is "performed at origin and destination *terminals* by carriers."²³ For purposes of those pre-Staggers cases, the AAR defined reciprocal switching as "terminal switching service."²⁴ The case law frequently described reciprocal switching as involving "opening terminals" for service,

²¹ See S. Rep. No. 96-470, at 42 (1979); H.R. Rep. 96-1035, at 67 (1980).

²² See, e.g., *Chicago Lake Shore & S. Bend Ry. Co., v. Dir. Gen., Lake Erie & W. R.R. Co.*, 58 I.C.C. 647 (1920) (declaring defendant's refusal to perform reciprocal switching for complainant unjust discrimination in light of defendant providing reciprocal switching service to another railroad at the same location); *Reciprocal Switching at Kansas City, MO, and Kansas City, KS*, 68 I.C.C. 591 (1922) (suspending increased reciprocal switching rates); *Railroad & Warehouse Comm'n of the State of MN v. Chicago Great W. Ry. Co.*, 262 I.C.C. 437 (1945) (denial by defendants of reciprocal switching to certain industries found not unreasonable or unduly prejudicial); *Switching Charges and Absorption Thereof at Shreveport, LA*, 339 I.C.C. 65 (1971) (suspending increased switching charges and instituting an investigation into their lawfulness).

²³ *Sioux City Term. Ry. Switching*, 241 I.C.C. 53, 90 (1940) (emphasis added); see also *Switching Charges and Absorption Thereof at Shreveport, LA*, 339 I.C.C. 65, 70 (1971) ("It has long been a common practice among the railroads to participate at commonly served *terminal areas* in what is called reciprocal switching.") (emphasis added).

²⁴ See *Federal Barge Lines, Inc. v. Alton & S. R.R.*, 303 I.C.C. 669, 678 (1958).

suggesting that reciprocal switching takes place in terminal areas.²⁵ Carriers' tariffs often defined reciprocal switching by reference to terminals.²⁶

When Congress enacted a statutory provision that expressly referred to reciprocal switching, Congress did not intend to define reciprocal switching in a way that was contrary to established industry usage and agency precedent. Indeed, as noted above, Congress included the new reciprocal switching provision in a section of the statute titled "Use of Terminal Facilities." Moreover, the legislative history of the Staggers Act confirms that reciprocal switching was intended to be limited to terminal areas. Specifically, Congress rejected an earlier formulation of the reciprocal switching provision that would have required reciprocal switching service throughout all standard metropolitan areas.²⁷ In rejecting that legislative proposal, Congress intended that reciprocal switching have a more limited geographic scope.

Since the passage of the Staggers Act, the agency has required reciprocal switching only once – in *Delaware & Hudson Ry. v. Consol. Rail Corp.*, 367 I.C.C. 718 (1983). There, the ICC required reciprocal switching for movements from various yards outside Philadelphia to a terminal in Philadelphia, suggesting that the scope of the reciprocal switching provision extended outside of a terminal. However, the ICC's subsequent decision in *Midtec* dismissed the *Delaware & Hudson* decision as an improper application of the statutory provision, calling into

²⁵ See, e.g., *Switching at Galesburg, Ill.*, 31 I.C.C. 294, 298 (1914) (Burlington Northern argued that it was unnecessary "to open its terminals [to reciprocal switching]"); *U.S. War Dept. v. Abilene & S. Ry. Co.*, 77 I.C.C. 317, 349 (1923) ("while one carrier may in this way open its terminals at one point to another carrier for a nominal charge, the situation may be reversed at another point"); *North Shore Material Co. v. Chicago & N.W. Ry. Co.*, 173 I.C.C. 543, 547(1931) (discussing the propriety of "opening defendant's terminals" for reciprocal switching service).

²⁶ See, e.g., *Switching at Kansas City, MO. & Related Points*, 96 I.C.C. 538, 541 (1925) (listing carrier's separate charges for reciprocal switching and intraterminal movements).

²⁷ See Senate Report, 96-470, 96th Cong., 1st Sess., at 41-42 (1979).

question its continued applicability.²⁸ Other cases after *Delaware & Hudson* have suggested that the reciprocal switching provision is intended to apply only in terminal areas.²⁹

Not only would NITL's arbitrary 30-mile presumption improperly allow reciprocal switching to be ordered outside of terminals, it also fails to provide a valid basis for distinguishing between the prescription of a reciprocal switch and the prescription of a through route. The statute recognizes a distinction between the Board's power to order reciprocal switching, which is found in 49 U.S.C. § 11102(c), and the Board's authority to prescribe through routes, which is found in 49 U.S.C. § 10705. The NITL proposal invokes the Board's authority under 49 U.S.C. §11102(c). The apparent premise of the NITL proposal is that reciprocal switches and prescribed through routes can be distinguished based on the length of haul of the movement at issue – movements under 30 miles are automatically considered part of a reciprocal switch under the NITL proposal as opposed to part of a through route. There is no basis in law or industry practice for such an assumption. The Board does not have authority to order a carrier to participate in a through movement under the guise of ordering “reciprocal switching.” Any relief available under 49 U.S.C. §11102(c) must be limited to “reciprocal switching,” but NITL’s 30-mile presumption fails to limit relief to reciprocal switching arrangements.

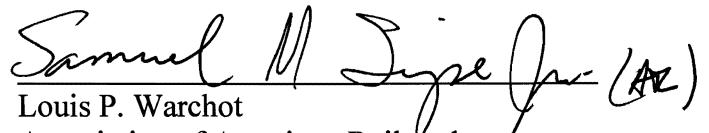
²⁸ *Midtec Paper Corp. v. Chicago & N.W. Transp. Co.*, 1 I.C.C.2d 362, 366-67 (1985).

²⁹ *Cent. States Enter., Inc. v. Seaboard Coast Line R.R. Co.*, Docket No. 38891, 1984 ICC LEXIS 499 at *6 (ICC served May 15, 1984) (declining to classify activity as “reciprocal switching” where shipper was not located in a terminal area), *aff'd* 780 F.2d 664 (7th Cir. 1985); *Vista Chem. Co. v. The Atchison, Topeka & Santa Fe Ry. Co.*, 5 I.C.C.2d 331, 340 (1989) (citing *Midtec*); c.f. *Midtec Paper Corp. v. Chicago & N.W. Transp. Co.*, 3 I.C.C. 2d 171, 178 fn 17 (1986) (“It is not clear whether reciprocal switching can be required outside a terminal facility.”).

V. Conclusion

The Board should not give further consideration to the NITL proposal. While the precise impact of the proposed mandatory switching regime is not possible to assess, the NITL proposal would clearly have serious unintended consequences. A restructuring of the rail industry to create multi-carrier service to a large number of shippers through mandatory switching orders would create service and operating issues that would compromise the efficiency and reliability of rail transportation and could lead to network-wide service problems. All users of the rail network, including shippers that would not be covered by the NITL proposal, would suffer the adverse consequences. The public interest would not be advanced by using mandatory switching orders to give rate relief to a favored group of shippers, particularly when the adverse consequences could be widespread and severe. Moreover, it would be inconsistent with governing law to engage in the restructuring of the rail industry contemplated by the NITL proposal.

Respectfully submitted,



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Baranowski / Brown

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

Petition for Rulemaking to Adopt)
Revised Competitive Switching) Docket No. EP 711
Rules)
)
)

Verified Statement of

Michael R. Baranowski

and

Richard W. Brown

Filed: March 1, 2013

I. INTRODUCTION

We are Michael R. Baranowski and Richard W. Brown of FTI Consulting, Inc. Mr. Baranowski is a Senior Managing Director and head of FTI Consulting's Network Industries Strategies (NIS) practice. Mr. Brown is a Director in the NIS practice and is responsible for conducting detailed railroad market studies for a variety of railroad clients. Details of our backgrounds and qualifications are set forth in Exhibits 1 and 2 to this verified statement. We have been asked by the Association of American Railroads (AAR) to review the Surface Transportation Board's ("Board") July 25, 2012 decision in Ex Parte 711 – Petition for Rulemaking to Adopt Revised Competitive Switching Rules and to develop responses to certain of the inquiries posed by the Board using the Board's 2010 confidential Carload Waybill Sample ("CWS") made available to parties for this proceeding and other publicly available data. In Section III of our statement we provide an overview of the analyses, a description of the data sources relied upon and the assumptions we made. In Section IV we summarize our results.

II. PROPOSED CHANGE TO RECIPROCAL SWITCHING REGULATION

The Board's Ex Parte 711 Petition seeks quantitative information for a proposal to modify the Board's standards for mandatory switching made by the National Industrial Transportation League (NITL). Under NITL's proposal, the Board would move away from a competitive-abuse standard toward a supposed market-power standard for mandatory access by promulgating a new Part 1145 to Title 49 of the Code of Federal Regulations, captioned "Competitive Switching Under 49 U.S.C. § 11102(c)." Under the proposal as characterized by NITL, mandatory switching by a Class I rail carrier would be imposed if four conditions were met: (1) the shipper (or group of shippers) is served by a single Class I rail carrier; (2) there is no effective intermodal or intramodal competition for the movements for which mandatory switching is sought; (3) there

is or can be “a working interchange” within a “reasonable distance” of the shipper’s facility; and
(4) switching is safe and feasible, and does not “unduly hamper” existing service.

Central to NITL’s proposed rules is the establishment of conclusive presumptions with respect to whether a shipper lacks effective intermodal or intramodal competition for the movements at issue, and whether there is a working interchange within a reasonable distance of the shipper’s facilities. NITL proposes that the Board conclusively presume that a shipper lacks effective intermodal or intramodal competition where either (1) the rate for the movement for which switching is sought has a revenue-to-variable cost ratio of 240% or more ($R/VC \geq 240$); or (2) where the Class I carrier serving the shipper’s facilities for which switching is sought has handled 75% or more of the transported volumes of the movements at issue for the prior twelve-month period. NITL also proposes, among other things, that the “reasonable distance” criterion would be conclusively satisfied if the shipper facility is “within a 30 mile radius of an interchange … at which interchange cars are regularly switched.”

III. OVERVIEW OF ANALYSIS

The Board has asked participants to provide empirical evidence on the possible impact of the NITL proposal on railroads, shippers and other users of the railroad network. To assist in the preparation of such evidence, the Board has made available the 2010 CWS data. The CWS is a stratified sample of carload waybills compiled by the Board for all U.S. rail traffic submitted by those rail carriers terminating 4,500 or more revenue carloads annually. The file contains details of each railroad shipment including the origin, destination, commodity, revenue, identification of railroads participating in each shipment, the junction points between railroads for interline moves, miles, railroad car type and a host of other shipment related data. It is not possible, due to data limitations, to carry out a shipper-specific or terminal-specific analysis of the potential

impact of the NITL proposal using the 2010 CWS made available by the Board for use in this proceeding. Specifically, the CWS does not associate movement data with specific shippers or otherwise disclose the identity of specific shippers. Therefore, while the Board has asked for information on a shipper-specific basis, the analysis using the CWS must be carried out on a movement-specific basis. In addition, since the CWS data focus on movements without identifying specific shippers, and does not include non-rail movements, the CWS cannot be used to determine whether a carrier handles 75% or more of the transported volumes from a particular shipper's facilities. Given these limitations, we adopted a default assumption that at stations served by a single rail carrier, the serving rail carrier is handling 75% or more of total shipper volumes.

In addition, although the CWS identifies stations or junctions at which traffic was interchanged during 2010, it does not provide a complete list of working interchanges or pinpoint their geographic locations. Because the CWS did not contain this data, we relied on location information in the Centralized Station Master (“CSM”) and Junction Interchange File (“JI”) to identify junctions within 30 miles of stations.

The CSM is a geographic location file which contains data about rail and motor carrier points for North America and international areas. This file is primarily used by railroads to help plan freight movements from origin to destination in an efficient and timely manner. CSM rail station records are uniquely identified by combination of the Standard Carrier Alpha Code (SCAC) field and Freight Station Accounting Code (FSAC) field. They can also be identified uniquely by their respective Standard Point Location Code (SPLC). The CSM contains geographic latitude and longitude coordinates for corresponding locations identified in the CWS.

The JI is the basis for identification of inter-carrier activities. This file contains records for each junction abbreviation and pairs of reporting marks that interchange at that junction. It also describes physical locations and defines the types of activities which occur at that location including boundary crossings, per diem relief points, rail to rubber interchange, shop interchange, water interchange and traditional rail to rail interchange.

The Board asks also for information on the estimated effects of implementation of the NITL proposal in existing terminals and for shippers located within the boundaries of those terminals. The term terminal is undefined and the CWS does not identify terminals. Because the NITL proposal would cover any movements where an interchange can take place within 30 miles of a shipper's facility whether or not the interchange is within or associated with a terminal our analysis does not screen out locations that might be determined not to be terminals and instead identifies all stations within 30 miles of railroad junctions as potentially subject to the NITL proposal.

Further, because the CWS does not identify individual shippers, it is not possible to use it to identify particular shippers located at multi-served stations that might be closed to reciprocal switching today. As a result, our analysis understates the potential effects of the NITL proposal for shippers that are open only to one rail carrier at stations that are served by more than one railroad. Because of the lack of detailed relevant data, we conducted our analysis using the station and standard point location code (SPLC) information from the CWS and will address the Board's questions at that level.

For the analysis, the confidential, unmasked, version of the 2010 CWS provided by the Board was used to identify SPLCs served in 2010 by single rail carriers. Intermodal shipments were excluded from the analysis since intermodal rail traffic originates and terminates at

facilities owned by railroads rather than at shipper facilities. Other exempt traffic was included in the analysis given the ambiguity in the NITL proposal as to the scope of the proposed rule change.

In addition to the CWS, we relied on the CSM and JI files to identify active railroad junctions and publicly-available information from railroad websites regarding the location and types of various rail-related facilities, such as automotive terminals, coal wharves, and iron ore wharves.

IV. IMPLEMENTATION OF METHODOLOGY AND RESULTS

Of the five specific questions, we focused on the first two. The Board's third, fourth and fifth questions are addressed by AAR's witnesses at Oliver Wyman and Christensen Associates. As to the first two questions, the available data did not allow us to provide the precise information requested. However, we were able to provide approximate results using assumptions that are described in more detail below.

A. QUESTION 1:

Identify the existing terminals and shippers located within the boundaries of those terminals. Explain whether the shippers can currently obtain competitive switching and any restrictions or limitations on the shippers' competitive switching rights.

As noted previously, terminals are not identified in the waybill data or in any other public source. In addition, the waybill data do not identify individual shippers and shipper-specific circumstances like the existence of restrictions on switching rights. As a result, the specific issues raised in Question 1 could not be evaluated. We instead used the waybill sample to construct a list of closed stations.

The first step in the analysis was to identify stations that appear to be served by only a single Class I rail carrier. Because they represent the most disaggregated level of geographic detail, each individual SPLC was considered to be a unique station. Although the details of each

shipper located within a particular station are not available from the CWS, for purposes of this analysis stations that appear from the CWS to have been served in 2010 by a single Class I rail carrier and all shippers within that station were assumed to be closed. As an initial cut, closed stations were identified as those where only a single carrier or one Class I and one non-Class I carrier reported originating or terminating carloads.¹ Of the 8,594 unique SPLCs in the CWS, 7,339 met this definition of being closed. A second pass looked for SPLCs that were served by single non-Class I carriers that interchanged with multiple Class I carriers. 590 SPLCs met these criteria and were removed from the list of closed SPLCs. SPLCs served by one Class I and one non-Class I where the non-Class I interchanges only with that same Class I were assumed to be closed. The final result was a list of 6,749 closed stations.

Table 1: Closed Station Count

| | Initial | Adjust: Non-Class I with Multiple Class I Connections | Final |
|-----------------|----------------|--|--------------|
| Stations | 7,339 | -590 | 6,749 |

The last step in identifying stations potentially subject to the NITL proposal is to identify stations for railroad-owned, special facilities such as coal and ore wharves and automotive terminals. Based on an a review of public sources such as Class 1 websites, in addition to knowledge of the industry, these facilities were assumed to be solely served by rail and not subject to being opened under the proposed rule, although this is just an assumption. Because the CWS does not contain

¹ The following three reporting marks were consolidated, respectively: KCS and KCSM, CPRS and CPUS, and CN and CNUS. For example, if a SPLC only had KCS and KCSM handling traffic, it was considered closed rather than open.

facility-level detail, traffic to these facilities was determined based on a combination of the station, the commodity, and the carrier originating or terminating traffic to the station.

Table 2: Number of Railroad-Owned Facilities

| | Count |
|----------------------|--------------|
| Automotive Terminals | 64 |
| Coal Wharves | 7 |
| Iron Ore Wharves | 3 |
| Total | 74 |

In sum, 6,675 stations were identified as potentially affected by the NITL proposal. Again, this number only reflects SPLCs. The actual number of facilities and customers is likely many times the number of SPLCs because multiple shipper facilities are located at many SPLCs. Moreover, as noted earlier, there are many rail customers at “open” stations that do not have access to two rail carriers. Details of the railroad owned facilities removed from the analysis are set forth in our work papers.

B. QUESTION 2:

Identify how many additional shippers and what amount of revenues earned by the incumbent Class I rail carrier from those shippers would be subject to competitive switching under NITL’s proposal.

As noted above, the waybill sample data do not identify shippers so a shipper-specific analysis is not possible based on that data. Instead, we made a rough estimation of the number of carloads that would potentially be subject to the forced switching regime in NITL’s proposal by creating a subset of the closed stations identified above that are candidates for being forced open under the NITL proposal because they are located within 30 miles of a junction point between

railroads. The revenue carload traffic associated with this subset of stations can then be estimated from the carload waybill data. It is important to note that the resulting number of carloads does not include carloads that would be covered by the NITL proposal that originate or terminate at a sole-served shipper facility located at a station served by multiple railroads. The carload count also does not reflect the movements of empty cars that would necessarily be associated with each affected revenue carload movement.

To carry out the analysis, we determined which of the closed stations had a junction within 30 miles and would therefore be a candidate for opening under the proposed rule. To do so, we utilized the CSM and JI files to identify 19 million potential combinations of carrier, station, and junction. The data was limited to stations that were active according to the reported expiration date, and junctions reported as normal, operating, or indirect haulage. Next, we applied the GEODIST function in SAS² using the latitudes and longitudes reported in the CSM to calculate the distance between each station and junction for these 19 million pairs. The last step was to eliminate non-US station-junction pairs, non-Class I carriers, and station-junction pairs with a distance greater than 30 miles or where, according to the JI file, there was not an interchange between two railroads at the junction. The final result was 140 thousand carrier-station-junction combinations less than or equal to 30 miles. This final list of combinations was used to identify those closed stations from the 2010 CWS where a junction for the single-serving carrier existed within 30 miles and would therefore be candidates for opening.

² The SAS GEODIST function calculates the distance between two locations on the earth's surface using latitude and longitude coordinates. Input values can be expressed in degrees or in radians. The calculations take into account the fact that the earth's shape is ellipsoidal and not spherical.

The distances calculated from the CSM and JI files represent air, or “as the crow flies,” miles because the NITL specifies a “30-mile radius.” Based on this analysis, 3,419 of the 6,749 closed stations would be candidates for opening. For purposes of this analysis, these stations are referred to as new access carrier (NAC) stations.

For each of the 3,419 NAC stations the expanded CWS reported number of carloads was tallied.³ These NAC stations served approximately 7.5 million carloads in 2010. Results of the CWS analysis are summarized in Table 3 below.

Table 3: Summary of CWS Records and Those Potentially Subject to NITL Proposal
(millions)

| | Carloads & Units |
|---|------------------|
| Total Number of Carloads and Containers in 2010 CWS | 33.3 |
| Intermodal Containers Served by Railroad Owned Facilities | 13.3 |
| Total Carloads Excluding Intermodal | 20.0 |
| Carloads Potentially Subject to NITL Proposal | 7.5 |

As Table 3 indicates, our analysis showed that more than a third (37.5%) of non-intermodal carload traffic reflected in the waybill sample would potentially be covered by the NITL proposal. While this represents a substantial share of the number of non-intermodal carloads, it does not reflect the full impact of the NITL proposal since the traffic at closed facilities would tend to make a higher than average contribution to railroads’ joint and common costs. Therefore, the amount of contribution that would potentially be affected by the NITL proposal would be even greater than 37.5%. Moreover, as indicated above, additional carload

³ The CWS is a stratified sample. Reported carloads are expanded by the Board in the file to represent total annual carloads using expansion factors relative to the specific sampling rates for each move type in the sample.

traffic (at stations served by multiple railroads) that it was not possible to identify from the waybill sample would also be covered.

Table 4 below provides commodity details, including the number of lanes,⁴ of the traffic potentially subject to the NITL proposal. The thirteen commodity groups listed in Table 4 constituted 99% of the 7.5M carloads, and demonstrate how broad the impact of the NITL proposal would be on a commodity basis.

Table 4: NAC-Originating or NAC Terminating Traffic, by Commodity

| STCC | Commodity | Lanes | Carloads |
|--------------|------------------|---------------|------------------|
| Total | | 21,366 | 7,531,274 |
| 11 | Coal | 1,027 | 2,858,399 |
| 28 | Chemicals | 5,667 | 841,105 |
| 01 | Farm Prod | 2,491 | 658,329 |
| 14 | Nonmetals | 798 | 605,982 |
| 10 | Metals | 134 | 503,126 |
| 37 | Transportation | 1,371 | 448,077 |
| 20 | Food Prod | 2,621 | 445,067 |
| 32 | Stone & Clay | 903 | 217,541 |
| 29 | Pet & Coal | 1,141 | 216,404 |
| 33 | Primary Metals | 1,055 | 196,232 |
| 26 | Pulp & Paper | 1,417 | 189,464 |
| 40 | Waste & Scrap | 986 | 168,470 |
| 24 | Lumber, Wood | 1,410 | 132,464 |
| | Other | 345 | 50,614 |

V. CONCLUSION

Although the data issues and ambiguities in the NITL proposal make it impossible to carry out the shipper-specific or terminal-specific analyses called for by the Board's questions, the analysis above demonstrates the broad potential impact of the NITL proposal. The NITL proposal covers a substantial share of both stations and carloads transported.

⁴ A lane is defined as a unique combination of two-digit STCC and origin-destination pair, where the origin and destination is interchangeable.

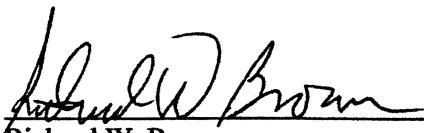
I declare under penalty of perjury that the foregoing is true and correct. I further certify that I am qualified and authorized to sponsor and file this testimony.

Executed on March 1, 2013


Michael R. Baranowski

I declare under penalty of perjury that the foregoing is true and correct. I further certify
that I am qualified and authorized to sponsor and file this testimony.

Executed on March 1, 2013



Richard W. Brown

EXHIBIT 1



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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 approach for large railroad 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 railroad operations, expenses, capital expenditures and revenues.
- Development of a suite of modeling tools to assess the regulatory risk of railroad rates for a mix of commodities based on key cost drivers and forecasts.
- Design and development of modeling tools designed to simulate the cost of competitive entry into local telecommunications markets and directing the efforts of a nationwide team of testifying experts presenting the cost model results in multiple proceedings across the country.
- Detailed analysis, critique and restatement of complex cost models developed for the railroad, telecommunications, pipeline and trucking industries.
- Designing modeling tools for use in calculating the costs of competitive entry into railroad, telecommunications and pipeline markets.
- Conducting detailed analyses of railroad operations and developing the associated capital requirements and operating expenses attributable to specific movements and the incremental capital and operating expense requirements attributable to major changes in anticipated traffic levels.

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.

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TELECOMMUNICATIONS TESTIMONY

Federal Communications Commission

- | | |
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| February 1998 | File No. E-98-05. AT&T Corp. v. Bell Atlantic Corp. Affidavit of Michael R. Baranowski. |
| March 13, 1998 | File No. E-98-05. AT&T Corp. v. Bell Atlantic Corp. Supplemental Affidavit of Michael R. Baranowski. |
| June 10, 1999 | CC Docket No. 96-98. Implementation of the Local Competition Provisions of the Telecommunications Act of 1996. Reply Affidavit of Michael R. Baranowski, John C. Klick and Brian F. Pitkin. |
| July 25, 2001 | CC Docket No. 00-251, 00-218. In the Matter of Petition of AT&T Communications of Virginia, Inc. and WorldCom, Inc., Pursuant to Section 252(e)(5) of the Communications Act, for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon-Virginia, Inc. Panel |
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Public Service Commission of Delaware

- | | |
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- | | |
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|---------------|---|

Michael R. Baranowski

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New Jersey Board of Public Utilities

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North Carolina Utilities Commission

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Pennsylvania Public Utility Commission

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Michael R. Baranowski

State Corporation Commission Commonwealth of Virginia

- | | |
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| April 7, 1997 | Case No. PUC970005. Ex Parte to Determine Prices Bell Atlantic - Virginia, Inc. Is Authorized To Charge Competing Local Exchange Carriers In Accordance With The Telecommunications Act of 1996 And Applicable State Law. Affidavit of Michael R. Baranowski. |
| April 23, 1997 | Case No. PUC970005. Ex Parte to Determine Prices Bell Atlantic - Virginia, Inc. Is Authorized To Charge Competing Local Exchange Carriers In Accordance With The Telecommunications Act of 1996 And Applicable State Law. Direct Testimony of Michael R. Baranowski. |
| June 10, 1997 | Case No. PUC970005. Ex Parte to Determine Prices Bell Atlantic - Virginia, Inc. Is Authorized To Charge Competing Local Exchange Carriers In Accordance With The Telecommunications Act of 1996 And Applicable State Law. Rebuttal Testimony of Michael R. Baranowski. |

Washington State Utilities and Transportation Commission

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| December 22, 2003 | Docket No. UT-033044. In the Matter of the Petition of Qwest Corporation To Initiate a Mass-Market Switching and Dedicated Transport Case Pursuant to the Triennial Review Order. Direct Testimony of Michael R. Baranowski. |
| February 2, 2004 | Docket No. UT-033044. In the Matter of the Petition of Qwest Corporation To Initiate a Mass-Market Switching and Dedicated Transport Case Pursuant to the Triennial Review Order. Response Testimony of Michael R. Baranowski. |

Public Service Commission of West Virginia

- | | |
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| February 13, 1997 | Case Nos. 96-1516-T-PC, 96-1561-T-PC, 96-1009-T-PC, 96-1533-T-T. Petition to establish a proceeding to review the Statement of Generally Available Terms and Conditions offered by Bell Atlantic in accordance with Sections 251, 252, and 271 of the Telecommunications Act of 1996. Testimony of Michael R. Baranowski. |
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| June 3, 2002 | Case No. 01-1696-T-PC, Verizon West Virginia, Inc. Petition For Declaratory Ruling That Pricing of Certain Additional Unbundled Network Elements (UNEs) Complies With Total Element Long-Run Incremental Cost (TELRIC) Principles. Direct Testimony of Michael R. Baranowski |
| July 1, 2002 | Case No. 01-1696-T-PC, Verizon West Virginia, Inc. Petition For Declaratory Ruling That Pricing of Certain Additional Unbundled Network Elements (UNEs) Complies With Total Element Long-Run Incremental Cost (TELRIC) Principles. Supplemental Direct Testimony of Michael R. Baranowski |

Michael R. Baranowski

RAILROAD TESTIMONY

Interstate Commerce Commission

March 9, 1995 Finance Docket No. 32467. National Railroad Passenger Corporation and Consolidated Rail Corporation -- Application Under Section 402(a) of the Rail Passenger Service Act for an Order Fixing Just Compensation.

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Surface Transportation Board

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Michael R. Baranowski

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EXHIBIT 2



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Prior to joining FTI, Mr. Brown spent 28 years with The Burlington Northern & Santa Fe Railway (BNSF), and its predecessor The Atchison, Topeka and Santa Fe Railway (ATSF). While at BNSF, he focused on strategic issues including the negotiation and implementation of the agreements between UP and BNSF that were effected to facilitate the UP-SP merger. Additionally, he took a lead role in the analysis of the potential impact of regulatory changes on railroad marketing strategy.

Mr. Brown held numerous positions in Strategic Planning and Marketing at ATSF. He was involved in merger analysis and planning and played a key role in the attempted merger between ATSF and Southern Pacific. He headed ATSF's Bulk Commodity Marketing which included Chemicals and Coal. In this role, Mr. Brown re-engineered a field sales organization with regional directors responsible for coaching and mentoring account managers; started a subsidiary company to handle tank containers as a retail intermodal option; and expanded on that with a joint venture with Bulkmatic, a major dry bulk truck line, to initiate a retail intermodal option for bulk containers.

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TESTIMONY

Surface Transportation Board

September 20, 2002 Docket No. 42070. Duke Energy Corporation v. CSX Transportation, Inc., Written Reply Evidence and Argument of CSX Transportation, Inc.

September 30, 2002 Docket No. 42069. Duke Energy Corporation v. Norfolk Southern Railway Company, Written Reply Evidence and Argument of Norfolk Southern Railway Company.



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| January 7, 2013 | Docket No. 42130 SunBelt Chlor Alkali Partnership v. Norfolk Southern Railway Company, Reply Evidence of Norfolk Southern Railway Company |

Eakin / Meitzen

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**STB EX PARTE NO. 711
PETITION FOR RULEMAKING TO ADOPT REVISED
COMPETITIVE SWITCHING RULES**

**JOINT VERIFIED STATEMENT
OF
B. KELLY EAKIN
AND
MARK E. MEITZEN
CHRISTENSEN ASSOCIATES**

MARCH 1, 2013

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INTRODUCTION

We are B. Kelly Eakin and Mark E. Meitzen of Christensen Associates and are two of the principal authors of the Christensen Associates' railroad competition studies.¹ We also provided a Joint Verified Reply Statement in support of the comments of the Association of American Railroads (AAR) in Ex Parte No. 705, *Competition in the Railroad Industry*. The AAR has asked us to comment on two questions raised by the Board in its July 25 Notice in this docket: (1) what would be the impact of NITL's proposal to modify the Boards standards for ordering mandatory switching² on those sole-served shippers not covered by the NITL proposal; and (2) how much of the railroads' revenue losses caused by the NITL proposal could be offset through traffic increases?³

We note that there is generally a lack of information to perform quantitative analyses to fully address the questions raised by the Board. However, it is clear that the NITL proposal would create "winners" and "losers" and that unintended consequences would result if the proposal were implemented. We provide an analysis of the winners and losers and the unintended consequences that would result if the NITL proposal

¹ With our colleagues, A. Thomas Bozzo, Douglas W. Caves, Laurits R. Christensen, Philip E. Schoech and Joseph A. Swanson, we produced *A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals that Might Enhance Competition* in November 2008 (revised November 2009) for the Surface Transportation Board. We produced two other studies for the STB, the *Supplemental Report on Capacity and Infrastructure* in March 2009, and *An Update to the Study of Competition in the U.S. Freight Railroad Industry* in January 2010.

² The Board uses the term "competitive switching," which it states is more applicable here than "reciprocal switching" because the arrangement would not be reciprocal between carriers. EP No. 711 Notice, July 25, 2012, p. 3. However, we note that there is a significant difference between switching that is compelled by Board order—"mandatory switching"—and switching arrangements that are voluntary. Voluntary arrangements represent market outcomes between optimizing railroads while mandatory arrangements represent constraints on the behavior of these railroads that would alter market outcomes.

³ Although the Board asked specifically about the impact of the NITL proposal on sole-served shippers who would not be able to obtain mandatory switching, the proposal would likely produce negative consequences with no offsetting benefit for all shippers, not just sole-served shippers, who cannot take advantage of the proposal. We discuss these negative consequences in detail below.

were implemented. We also provide qualitative conclusions and outline factors to be considered to adequately provide a quantitative response to the Board's questions.⁴

We have previously addressed potential changes to the Board's access regulation in studies that we performed for the Board and in testimony to the Board. In Chapter 22 of our November 2008 report,⁵ we examined various forms of "open access" regulation, including changes to the Board's approach to bottleneck rates, reciprocal switching, terminal agreements and trackage rights. We concluded that relative to other open access policies (e.g., trackage rights, bottleneck rates), changes in policies such as reciprocal switching would be the least costly in terms of loss of economic efficiency and have a lower potential of adverse changes to the industry.⁶

However, as we explained in our Verified Reply Statement in EP 705, our conclusion was not a recommendation that a change in policy be adopted, and it did not preclude the possibility that, in absolute terms, the economic costs that would result from such a policy change could exceed the benefits of the change in policy.⁷ The economic costs of imposing the NITL proposal could be significant and, as we discuss below, would be borne in large part by those who do not benefit from the NITL proposal.

⁴ It is uncertain whether all of the required information exists or can be readily developed to adequately produce a quantitative response to the Board's questions.

⁵ Joint Verified Reply Statement of B. Kelly Eakin and Mark E. Meitzen, STB Ex Parte No. 705, May 27, 2011.

⁶ *A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals that Might Enhance Competition*, November 2008 (Christensen 2008), p. 22-14.

⁷ Our comparison of various types of open access (including Table 22-1) was performed under the assumption, consistent with current policy, that the terms of access, including compensation, reflected voluntary negotiations between railroads subject to STB maximum rate oversight. Christensen 2008, p. 22-12. We do not consider here the impact of the level of compensation for mandatory access on the possible economic costs of the NITL proposal.

Also, as we noted in our Verified Reply Statement in EP 705, consideration of operational issues was not in the scope of our STB studies. In preparing a response to the Board's July 25 Notice in this docket, the AAR has developed evidence relating to the impact of mandatory switching on rail service. As we discuss, the impact of potential service declines is an important part of any evaluation of the economic costs of the NITL proposal.

IMPACT OF THE NITL SWITCHING PROPOSAL ON EXCLUDED SHIPPERS

The NITL mandatory switching proposal would be an asymmetric change in regulation that creates winners and losers. That is, the proposal would have redistribution impacts. In this section we discuss how the NITL switching proposal creates winners and losers, the likely impacts of the proposal on service quality, and how these impacts may alter the competitive balance in shipper product markets.⁸

Creation of Winners and Losers

The NITL proposal targets a select set of shippers in a select set of markets to be the beneficiaries of their proposed mandatory switching rules. The proposal would create two classes of shippers: "covered shippers" are sole-served shippers who could invoke mandatory switching under the proposal and benefit from lower rates; and "excluded shippers" are shippers who would not benefit from the NITL proposal. A

⁸ While the Board's question is directed at the impact of the NITL proposal on those shippers not covered by the proposal, the NITL proposal would also have a negative impact on railroad profits. The negative effects of the NITL proposal on railroad revenues would include lower revenues collected from covered shippers for a given level of traffic and likely lower traffic levels—and lower revenues—from excluded shippers. Railroad cost increases resulting from the NITL proposal would include the costs of increased switching activity and car handling and a likely overall decline in railroad operating efficiency.

subclass of excluded shippers is “rate-disadvantaged shippers” whose rates would ultimately increase as a result of the NITL proposal.

The impact of the NITL proposal on the group of rate-disadvantaged shippers is the most obvious example of the creation of winners and losers. To the extent rate-disadvantaged shippers pay more for transportation service because the covered shippers pay less, the NITL proposal clearly redistributes wealth between the two groups. We have noted in our STB studies the potential for redistribution impacts from providing rate relief to a specific set of shippers. In particular, we noted that:

Because the railroad industry has remained approximately revenue sufficient in recent years, we reemphasize one of our original conclusions: providing significant rate relief to some shippers will likely result in rate increases for other shippers or threaten railroad financial viability.⁹

This is simply recognition of an adding up condition. To the extent their costs are increased or they suffer revenue losses, railroads might face reduced regulatory constraints on their pricing, resulting in the ability to increase rates in those instances where pricing is constrained by regulation rather than by competition. The ability of railroads to raise rates of the rate-disadvantaged shippers beyond existing levels is unclear, therefore the extent of this redistribution impact is difficult to evaluate.

The NITL proposal would create winners and losers among shippers in at least two other important ways. First, not all costs of the proposal would be borne by the

⁹ *An Update to the Study of Competition in the U.S. Freight Railroad Industry*, January 2010, p. ii.

beneficiaries, particularly costs created by declines in service quality.¹⁰ Covered shippers would bear some of these costs, but they would not be the only parties to bear costs. To the extent that the extra costs to the railroad system (not just the increased costs of the individual movement) introduced by the proposal are not borne by the covered shippers, excluded shippers are harmed. Beyond bearing some of these extra costs, excluded shippers would also need to cover a larger proportion of railroad overhead costs.¹¹ Thus, the proposal would end up conveying benefits to a select group of shippers, while broadly adding to and reallocating cost burdens across other shipper groups and rail service providers.

Second, excluded shippers would suffer a disadvantage in product market competition with other shippers including covered shippers. While both sets of shippers would be adversely affected by service declines, covered shippers would at least have the benefit of lower rates created by the mandatory switching proposal that would allow them to compete more effectively against excluded shippers. The change in competitive conditions between covered and excluded shippers could lead to an unintended reallocation of resources and markets, with excluded shippers being competitively disadvantaged in the product markets in which they participate.

We discuss these two impacts separately below.

¹⁰ We understand that the railroads and the AAR will be providing evidence on the impacts of the NITL proposal on railroad costs and service quality. Many of these impacts were discussed in EP 705 and include extra car handlings, extra interchanges, inefficient routings, coordination issues between railroads, cars or blocks of cars sitting at interchange points for a period of time before the connecting railroad is able to pick it up, and an increase in labor and capital needs to handle the interchanged traffic. See Verified Statement of Mark D. Manion on Behalf of Norfolk Southern Railway Company, STB Ex Parte No. 705, April 6, 2011.

¹¹ To the extent contribution to railroad overhead costs lost from covered shippers is not made up by excluded shippers (rate-disadvantaged shippers), the financial situation of the railroad would decline.

Impacts on Service Quality and Consequences

The NITL proposal is likely to affect railroad service quality (e.g., speed and reliability of freight rail service) and thereby negatively impact a wide array of users of freight rail networks. Adding an interchange to what is now a single-line movement would impose additional costs and create additional steps in the movement. AAR's witness Mr. Rennicke explains in more detail that the potential impact on service quality could arise from increased congestion in yards and at switching points covered by the NITL proposal as the efficient flow of rail services is interrupted by increased switching activity at those facilities covered by the proposal. Moreover, this localized deterioration in service quality may spread throughout the network. In the case of either localized or more widespread service issues shippers other than those who benefit from the NITL proposal would be affected by diminished service quality caused by mandatory switching activity. Thus, covered shippers would not bear the full costs of the switching services they request as some of the costs would be borne by others.¹² This is what economists call a negative externality, which in this case results from the interference with the market process caused by the mandatory switching.

¹² As we discussed in our capacity study for the STB, a phenomenon of network industries (e.g., railroad, data and communications, and electricity) is what is known as network effects or network externalities, where what happens on one segment of the network may have spillover effects on other parts of the network. For example, congestion or constraints that cause a decline in throughput at particular network nodes or segments often proliferates or cascades throughout the network. See *Supplemental Report on Capacity and Infrastructure*, in March 2009, Chapter 2. Also see Verified Statement of Mark D. Manion on Behalf of Norfolk Southern Railway Company, STB Ex Parte No. 705, April 6, 2011. An acute example of cascading failures occurred in 1997 when "UP and SP lines in and around Houston became severely congested, leading to a lengthy and damaging service breakdown dramatically affecting rail transport throughout the West," *Union Pacific Corp. – Control and Merger – Southern Pacific Rail Corp.*, 3 S.T.B. 1030, 1036 (1998).

Indeed, any rate reductions that covered shippers could expect under the NITL proposal would be at least partially offset by the added costs of the service declines that result. But the NITL proposal would not provide excluded shippers with any rate reductions that might offset, even in part, the additional costs resulting from declining service quality created by the proposal.

Long-term service issues for all users of freight rail networks would be created by the likely effect of the NITL proposal on railroad investment. Railroads' required levels of investment, their ability to fund such investments, and their investment incentives are all likely to be affected by the proposal. To the extent service quality deteriorates as a result of the NITL proposal, additional investment would be needed to address the declining service, such as additional investment in yard capacity to accommodate a higher level of switching activity and higher volumes of interlined traffic. Thus, additional investment would be required just to maintain current service levels for all customers. However, to the extent that the NITL proposal would have a negative impact on railroad profitability, railroads would find it difficult to maintain current investment levels, let alone increase investment. Moreover, the railroads' incentive to increase their levels of investment would be reduced due to lower expected returns and the uncertainty created by the NITL proposal over network traffic patterns and the amount of traffic that would be available to pay for those investments.

Impacts in Shipper Product Markets

The NITL switching proposal would also redistribute benefits within a covered shipper's industry, change market structure in that industry, and alter product market

outcomes. Under the proposal, two otherwise identical firms in an industry would now be arbitrarily differentiated by distance to an alternative railroad. The shipper within the mandatory switching facility defined by the NITL proposal would become a covered shipper and the shipper outside this defined facility would be an excluded shipper and, potentially, a disadvantaged shipper. The proposed mandatory switching rule would give the covered shipper a competitive advantage over the otherwise identical excluded firm. The result would be the redistribution of profits from the excluded shipper to the advantaged shipper. Thus, the proposal would have economic consequences filtering beyond the railroad industry: the NITL proposal would interfere with the market process in the covered shipper's industry, making winners and losers out of otherwise identical firms.

Other product market consequences of the NITL proposal for excluded shippers might include reduced operations, shifting production into other markets, or even exiting the industry altogether. Resources reallocated into other markets and industries represent changes in market outcomes that would not occur but for the adoption of the NITL switching proposal that benefits a discrete set of shippers.

Finally, in addition to being disadvantaged relative to covered shippers in their particular industries, excluded shippers might also be competitively disadvantaged by the NITL proposal relative to: other firms in their industry that were not affected to the same extent or at all by the negative externalities caused by the proposal; and/or producers of other substitutable goods. This competitive disadvantage might have consequences for export markets as the locations of these other firms in the same industry or in substitute goods industries may be in other countries.

Summary

The NITL mandatory switching proposal would have adverse consequences for excluded shippers and rail service providers. Quantifying the impacts requires more detail on the proposal. Furthermore, the amount of information that would be required on shipper behavior, shipper product market structure, and rail operations in specific locations would be extensive, and it is questionable whether this information could be readily developed to provide quantitative answers to the Board's questions. But broadly speaking, the proposal would be redistributive by conveying benefits to a discrete set of shippers while adding and reallocating costs across other shippers and railroads. The proposal would change market outcomes among groups of shippers and for railroads as well. The proposal represents interference with market mechanisms for an end that would not be universally beneficial and that would increase costs.

HOW MUCH OF REVENUE LOSSES COULD BE OFFSET BY TRAFFIC INCREASES?

The Board has asked how much of the revenue losses incumbent Class I railroads would incur as a result of the NITL proposal could be offset through traffic increases.¹³ Available information does not permit this question to be answered with a quantitative prediction. As we discuss in this section, information on a number of factors would need to be known to provide a quantitative answer to this question. In addition to enumerating these factors, we provide a qualitative assessment of this question.

In this section, we discuss the factors and information that would need to be considered to determine, first, whether traffic would increase as a result of the NITL

¹³ EP No. 711 Notice, July 25, 2012, p. 9.

proposal and, second, whether the revenue losses caused by the proposal would be offset if traffic increases. We provide an analytical framework to assess whether revenue losses caused by the proposal would be offset if traffic increases. In establishing this framework, we observe that the more relevant economic question would consider the impact of the NITL proposal on railroad contribution, not revenue.

What is the Likelihood that Traffic Would Increase?

Covered shippers' response to rate reductions caused by the NITL mandatory switching proposal would depend on the magnitude of the rate reductions and shippers' elasticities of demand for rail transportation: for a given rate reduction, a higher elasticity of demand results in a greater increase in the quantity of covered shipper demand for rail services and, conversely, a lower elasticity of demand results in a smaller increase in the quantity of covered shipper demand for rail services.¹⁴

Shipper elasticity of demand for rail transportation may vary by commodity and/or geography and, thus, changes in traffic in response to rate reductions induced by the NITL proposal would vary accordingly. For example, some commodities will have relatively inelastic demand for rail transportation because the demand for the commodity, itself, is inelastic and input substitution possibilities are limited.

As we discuss below, the quantity of excluded shipper demand for rail services would, at best, be the same but would likely decline. Thus, the source of any increase in traffic resulting from the NITL proposal would be confined to the class of covered

¹⁴ Elastic demand means a price decrease results in a more than proportional increase in quantity demanded. Inelastic demand means a price decrease results in a less than proportional increase in quantity demanded.

shippers. Therefore, at a minimum, information would be needed on the magnitude of any rate reductions caused by the NITL proposal and covered shippers' elasticities of demand for rail transportation.

However, there are a number of largely interrelated factors that would be affected by the NITL proposal that would mitigate any increases in quantity demanded by covered shippers resulting from the proposal and railroads' ability to provide increased quantities of services. The likelihood that the traffic of covered shippers would increase depends on the magnitude of the effects produced by these factors and, thus, would need to be evaluated to determine the impact of the NITL proposal on covered shipper traffic. The mitigating factors include the impact of the NITL proposal on: service quality; railroad revenues, costs and profits; the amount of investment required to maintain or increase traffic levels; and the ability and incentives of railroads to undertake investments.

As discussed above, the potential negative impact of the NITL proposal on service quality could arise from increased congestion at yards and switching points (particularly those covered by the proposal), increased terminal dwell times and diminished railroad operational efficiency. Moreover, there is a likelihood that localized service quality impacts would proliferate through the network. The impact on covered shippers would include an increase in shippers' transportation costs and a decline in the reliability of rail service,¹⁵ both of which would dampen any increase in demand for rail services created by the NITL proposal.

¹⁵ As we have discussed, the negative externalities created by the NITL proposal would also result in higher costs and less reliable service for excluded shippers as well.

To the extent railroads' ability to invest is impeded by the impact of the NITL proposal on railroad profits, railroad capacity to handle existing traffic levels (let alone greater levels) is affected. It is likely the case that to maintain previous levels of efficiency and ability to handle traffic, railroads would need to incur greater levels of investment after implementation of the NITL proposal.¹⁶ For example, yard capacity would need to be increased to accommodate increased switching activity, car handlings and terminal dwell. The impact of lower railroad profits and investment activity would largely be felt through diminished levels of service, exacerbating the service quality impacts discussed above.

In addition to affecting railroads' ability to invest, the proposal would also likely have a negative impact on railroads' investment incentives. Among the reasons for the negative impact on investment incentives is the likelihood that the NITL proposal would make traffic flows and patterns less predictable, adding uncertainty to investment decisions, and would potentially discourage railroads from investing because their return on that investment could be significantly impaired by a requirement that they provide mandatory switching for their competitors.

Finally, excluded shipper traffic would likely decline under the NITL proposal. For rate-disadvantaged shippers, rate increases would reduce their demand for rail transportation because of its higher price and also because of product market competitive disadvantage created by the proposal. Also, as discussed above, service

¹⁶ See Verified Statement of Mark D. Manion on Behalf of Norfolk Southern Railway Company, STB Ex Parte No. 705, April 6, 2011; and Verified Statement of Lance M. Fritz, STB Ex Parte No. 705, April 11, 2011.

quality problems and other network inefficiencies caused by the NITL proposal would likely affect shippers other than the covered shippers who benefit from the NITL proposal, thus increasing excluded shippers' rail transportation costs. These negative impacts on excluded shippers are likely to translate into a decrease in their demand for rail transportation.

From a broader perspective, to the extent the NITL proposal results in reduced freight rail traffic, other modes could experience an increase in demand for their transportation services. For example, declining rail service could lead shippers to move their traffic from rail to truck, creating the possibility of greater highway congestion.

Can Traffic Increases Offset Railroad Revenue Losses Caused by the NITL Proposal?

The Board asks whether traffic increases can offset the revenue losses created by the NITL proposal. It is questionable whether overall traffic would, in fact, increase under the NITL proposal: it is likely that excluded shipper traffic would decrease (and, thus, revenue generated from excluded shippers would decrease), and whether any increase in covered shipper traffic would be enough to offset the decrease in excluded shipper revenues is an empirical matter.

The extent of revenue generated by any increase in covered shipper traffic to offset revenue losses caused by the proposal would depend on shippers' respective elasticities of demand for rail transportation, and the effects of the mitigating factors on shipper demand for rail transportation and on railroads' ability to provide service

(discussed above).¹⁷ To determine whether railroad revenue would increase overall as a result of the NITL proposal, an extensive amount of information would be needed. This information would include:

- Amount of traffic for both covered and excluded shippers;
- Elasticities of demand for both covered and excluded shippers (these may vary by commodity and/or geography);
- The impacts of other non-price factors affecting shippers' demand for rail transportation;
- The factors affecting railroads' ability to provide service and maintain service quality;
- Rate reductions caused by the NITL proposal for covered shippers;
- Rate impacts on excluded shippers.

As some of this information is unknown or cannot be fully developed, a meaningful quantitative response to the Board's question cannot be provided.

Although the Board asked whether there would be offsets to railroad revenue losses, the more relevant question for evaluating the economic impact of NITL's proposal on the railroad industry is what happens to the amount of contribution to overhead generated? The answer to this question is unambiguous: the NITL proposal would reduce the contribution generated from the covered shippers. Furthermore, the more covered traffic increases as a result of the proposal, the worse the contribution situation would become.

Contribution is generally defined as the difference between revenue and variable cost, and represents a firm's ability to cover its non-variable costs and generate profit.

¹⁷ In response to rate declines caused by the NITL proposal, if demand is elastic revenue would increase, but if demand is inelastic revenue would decrease. As noted above shipper elasticity of demand for rail transportation may vary by factors such as commodity and/or geography.

As opposed to revenue, the contribution impact of the NITL proposal measures the true economic impact of the NITL proposal on railroads because there would be both revenue and cost impacts created by the proposal. As with revenue offsets, the question of contribution offsets is focused on covered shippers.¹⁸

Regarding potential contribution offsets generated by covered shippers, the NITL proposal would result in lower railroad contribution. That is, the cost increase more than offsets the revenue increase (if any). As we show in the Appendix, if the railroad is maximizing profit, then any price change resulting from a change in regulation decreases contribution generated from the regulated market. In particular, if a lower price results, then the quantity sold would increase and, as a result, revenue would increase, cost would increase, but cost would increase by more than revenue, so contribution would decrease. If the firm is already subject to regulation that results in a price less than the unconstrained profit-maximizing price, then regulation that further lowers price results in further loss of contribution.

A policy, such as mandatory switching, that lowers the price of rail services in a market would result in a decrease in total contribution received by the railroad. This conclusion is intuitive—if it were otherwise the railroad would have lowered price on its own. We establish the result mathematically in our Appendix to this statement. Thus, the relevant question in considering such a policy is not whether the policy would

¹⁸ The potential for increased traffic derives from a lower rate, and a lower rate under the NITL proposal would only be available to covered shippers. Excluded traffic and revenues, at best, would remain the same and would more likely decline. Combined with the cost increases that would be associated with serving excluded traffic, contribution generated from excluded shippers would decline as a result of the NITL proposal.

decrease contribution, but instead the relevant question is how severe would the contribution decrease be?

In the Appendix, we present a theoretical analysis of the factors that determine the severity of contribution loss. We reach five important findings:

1. The marginal loss of contribution increases as price is further reduced below the contribution-maximizing level.
2. The cumulative loss in contribution from an additional price decrease becomes increasingly larger as price is further below its contribution-maximizing level.
3. The cumulative loss of contribution from a policy that reduces price by a specific amount is greater the more constrained the market is originally.
4. The more elastic demand is, the smaller the marginal loss of contribution at any output level, but the greater the cumulative loss of contribution from a policy that further reduces price below the contribution-maximizing level.
5. The steeper the marginal cost curve, the greater the marginal loss of contribution at any output level and the greater the cumulative loss of contribution loss from a policy that further reduces price below the contribution-maximizing level.

Findings 1, 2, and 3 indicate that the contribution loss increases exponentially as price is reduced below its contribution-maximizing level. Finding 4 says the contribution loss is larger the more responsive the covered shippers are to a change in price. Finding 5 says the contribution loss is larger the more difficult it is for the railroad to provide the additional services demanded as a result of the lower price.

This analysis is an illustration of the economic principle that if an economic agent is behaving to optimize its objectives (e.g., railroads maximizing efficiency and profits) adding constraints or conditions to this optimization (e.g., requiring switching where it is not voluntarily provided) cannot make the agent better off and likely makes the agent worse off. Assuming that railroads are optimizing economic agents, if they could have

made themselves better off by pursuing actions consistent with the NITL proposal, they would have. The fact that they haven't voluntarily implemented the NITL proposal is an economic indication that railroads could not be better off under the proposal: that contribution losses caused by the proposal would not be offset by traffic increases of any magnitude. Mandatory switching would introduce additional costs that may exceed the benefits of the proposal and would interfere with railroads' differential pricing that is acknowledged as necessary for railroads to achieve financial viability.

Summary

A number of factors call into question whether the NITL proposal would cause an overall increase in traffic. At best, excluded shipper traffic would remain the same but would more likely decline. The extent to which covered shipper traffic would increase depends on how the interrelated factors discussed in this section impact covered shippers' demand for freight rail services and railroads' ability to serve this demand. The magnitudes of these factors are unknown and would need to be determined to predict the impact of the NITL proposal on covered shipper traffic. Regarding the question of revenue offsets, the more informative economic question is not whether any traffic increases offset revenue losses, but whether any traffic increases offset railroad contribution losses that would be caused by the proposal. Assuming that railroads were optimizing economic agents prior to implementation of the NITL proposal, contribution levels would not be offset by any traffic increases.

CONCLUSION

The NITL mandatory switching proposal represents a change in railroad regulation that, by its very design, creates winners and losers (and possible unintended consequences even for the “winners”). In addition to direct costs imposed on shippers and railroads, one of the important potential side effects of the NITL proposal would be degradation in service quality that would affect not only the switching areas defined by the NITL proposal but could spread throughout the network.

These service quality problems—whether localized or more widespread—create negative externalities in that those who create the service quality problems (covered shippers who obtain mandatory switching) would not bear the full costs of their actions. Such externalities represent market failures that reduce welfare. Excluded shippers would likely suffer service quality declines and cost increases, but receive no offsetting rate reductions to compensate for these negative impacts. Freight railroads are also likely to be losers to the extent their operations become less efficient, costs increase and contribution declines. Longer-term impacts on service quality could result if these impacts result in a diminished ability of railroads to invest in their networks and/or a disincentive to undertake investments.

The conclusions of our STB studies did not preclude the possibility that, in absolute terms, open access policies such as the NITL proposal would generate economic costs that must be weighed against the benefits of these policies. At this point, the exact magnitudes of the impacts of the NITL proposal are not known. What is known is that the proposal would generate costs of the types described here and these costs should be considered in the evaluation of the NITL proposal.

Current freight rail transportation policy defers to market-based solutions. The NITL mandatory switching proposal moves away from that policy. Rather than protecting sole-served shippers overall, the proposal would reconfigure the regulatory backstop in a manner designed to benefit a select set of shippers, but harming the group of excluded shippers. The result of this asymmetric market interference would be to: create winners and losers, both among shippers and railroads; reallocate resources across markets; and introduce a market failure by adding costs that fall on other than the beneficiaries of the policy.

APPENDIX: THE IMPACT OF A PRICE DECREASE ON REVENUE, COST AND CONTRIBUTION

If a firm is maximizing profit, then any change in price imposed by regulation (i.e., demand and cost conditions have not changed) decreases contribution (i.e., profit) generated in that market. If a higher price were imposed, the quantity sold would decrease and, as a result, revenue would decrease, cost would decrease, but revenue would decrease by more than cost so contribution would decrease. If a lower price were imposed, then the quantity sold would increase and, as a result, revenue would increase, cost would increase, but cost would increase by more than revenue, so contribution would decrease.

If the firm is already subject to regulation that results in a price less than the unconstrained profit-maximizing price, then regulation that further lowers price results in further loss of contribution. The loss in contribution from an additional price decrease becomes increasingly larger as price is further below its contribution-maximizing level.

We now mathematically derive these conclusions and illustrate them graphically.

The Impact on Revenue

Revenue (R) is the price of a good (P) times the quantity sold (Q). That is,

$$(1) \quad R = P Q$$

Thus, the change in revenue is

$$(2) \quad \Delta R = P \Delta Q + Q \Delta P$$

The price elasticity of demand (E_D) is a measure of price responsiveness. Specifically, E_D indicates the percentage change in quantity demanded resulting from a one percent change in price. That is,

$$(3) E_D = (\Delta Q/Q) / (\Delta P/P) \quad (\text{note: } E_D \text{ is a negative number})$$

Substituting $\Delta Q = E_D Q \Delta P/P$ into the expression for ΔR gives

$$(4) \Delta R = (E_D + 1) Q \Delta P$$

So,

$$(5) \Delta R/\Delta P = (E_D + 1) Q$$

That is, if demand is elastic ($E_D < -1$), a decrease in price ($\Delta P < 0$) results in an increase in revenue ($\Delta R > 0$). But, if demand is inelastic ($E_D > -1$), then a decrease in price results in a decrease in revenue.

The Impact on Cost

A firm's cost consists of variable cost and fixed cost. That is,

$$(6) \text{Cost} = \text{Variable Cost} + \text{Fixed Cost} = VC + FC$$

Variable cost increase as output produced and sold increases. Fixed cost does not change with output. The change in cost is

$$(7) \Delta \text{Cost} = \Delta \text{Variable Cost} + \Delta \text{Fixed Cost} = \Delta \text{Variable Cost}$$

$$= (\partial VC / \partial Q) \Delta Q$$

$$= MC \Delta Q$$

$$(\text{MC} \equiv \text{Marginal Cost} = \partial VC / \partial Q)$$

Substituting $\Delta Q = E_D Q \Delta P/P$ into (7) and dividing both sides by ΔP gives

$$(8) \Delta VC/\Delta P = E_D Q MC/P < 0 \quad (\text{because } E_D < 0)$$

That is, a decrease in price ($\Delta P < 0$) results in an increase in cost ($\Delta VC > 0$).

The Impact on Contribution

Contribution from a market is the amount by which revenue from that market exceeds variable cost. That is,

$$(9) \text{Contribution} = R - VC$$

The marginal impact on contribution from an increase in quantity produced and sold is

$$(10) \begin{aligned} \partial \text{Contribution}/\partial Q &= \partial R/\partial Q - \partial VC/\partial Q \\ &= MR - MC \quad (MR \equiv \text{Marginal Revenue} = \partial R/\partial Q) \end{aligned}$$

The negative of $\partial \text{Contribution}/\partial Q$ indicates the *marginal loss of contribution*.

The cumulative impact on contribution from a discrete change in price, using (5) and (8), is

$$(11) \begin{aligned} \Delta \text{Contribution}/\Delta P &= \Delta R/\Delta P - \Delta VC/\Delta P \\ &= Q [(E_D + 1) - E_D MC/P] \\ &= Q \{E_D [(P - MC)/P] + 1\}. \end{aligned}$$

The negative of $\Delta \text{Contribution}/\Delta P$ indicates the *cumulative loss of contribution*.

A profit-maximizing firm that does not have price constrained by regulation sets a price (or quantity) such that $(P - MC)/P = -1/E_D$.¹⁹ This implies that $E_D < -1$. That is, the unregulated profit-maximizing firm perceives elastic demand. When profits are at a maximum, $\Delta\text{Contribution}/\Delta P = 0$ for an infinitesimal ΔP .

Consider the case when price is constrained below the profit-maximizing price. If price were constrained such that demand is inelastic ($E_D > -1$), then further reduction in price would decrease revenue and increase cost, both effects eroding contribution. If price is constrained, but demand remains elastic ($E_D < -1$), then $0 < (P - MC)/P < -1/E_D$. Consequently, $\Delta\text{Contribution}/\Delta P > 0$ if price is less than profit-maximizing price. That is, even in the case where demand remains elastic, a further reduction in price ($\Delta P < 0$) increases cost by more than the increase in revenue, resulting in additional contribution loss.

Examination of the impact on contribution from a price decrease reveals five important results:

1. The marginal loss of contribution increases as price is further reduced below the contribution-maximizing level.
2. The cumulative loss in contribution from an additional price decrease becomes increasingly larger as price is further below its contribution-maximizing level.
3. The cumulative loss of contribution from a policy that reduces price by a specific amount is greater the more constrained the market is originally.
4. The more elastic demand is, the smaller the marginal loss of contribution at any output level, but the greater the cumulative loss of contribution from a policy that further reduces price below the contribution-maximizing level.

¹⁹ $(P - MC)/P = -1/E_D$ is commonly known as the Lerner Index of Market Power. This equation is a rearrangement of the familiar profit-maximization condition that $MR = MC$.

5. The steeper the marginal cost curve, the greater the marginal loss of contribution at any output level and the greater the cumulative loss of contribution loss from a policy that further reduces price below the contribution-maximizing level.

To establish Result 1 we note that:

- i. the law of demand implies that marginal revenue slope downward (i.e., $\partial MR/\partial Q < 0$) ;
- ii. the first- and second-order conditions for a profit maximum are $MR = MC$ and $\partial MR/\partial Q < \partial MC/\partial Q$.

As price is constrained below the profit-maximizing price and quantity increases beyond the profit-maximizing level of output, contribution declines because marginal revenue is less than marginal cost. The marginal loss of contribution is $MC - MR$. If $\partial MC/\partial Q \geq 0$, then the gap between marginal cost and marginal revenue widens as Q increases.²⁰

Thus, the more price is constrained below the profit-maximizing price, the greater the marginal loss of contribution.

Results 2 and 3 follow directly from Result 1. $MC - MR$ is the marginal loss of contribution. The more that price is constrained, the greater the initial $MC - MR$ gap. And the gap gets wider as price further declines.

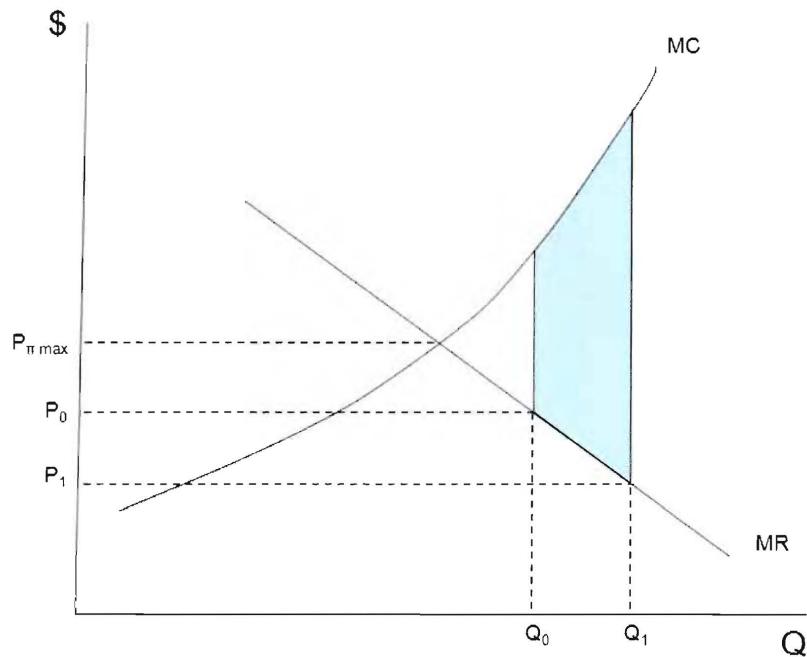
Result 2 indicates that the second dollar of a price decrease causes more contribution loss than did the first dollar, that the third dollar of a price decrease causes more contribution loss than the second dollar, and so forth. That is, contribution loss is increasing exponentially as the price decreases.

Result 3 states that the more price is already constrained, the greater the cumulative effect of any further price reduction of a given size.

²⁰ The gap between marginal cost and marginal revenue widens even if $\partial MC/\partial Q < 0$ so long as $\partial MC/\partial Q > \partial MR/\partial Q$.

Results 1, 2, and 3 are summarized in the Figure 1. The marginal loss of contribution is the vertical distance between the marginal cost curve and the marginal revenue curve. The cumulative loss of contribution as price is decreased by a discrete amount, $\Delta P = P_1 - P_0$, is indicated by the shaded area between the MC and MR curves from Q_0 to Q_1 .

Figure 1: The Impact on Contribution of a Price Decrease



Result 4 has two parts concerning the influence of the elasticity of demand. First, how does the marginal loss of contribution depend on the elasticity of demand? To answer this we examine the partial derivative of the marginal loss expression with respect to E_D . That is,

$$(12) \quad \frac{\partial [MC - MR]}{\partial E_D} = -\frac{\partial [P(1 + 1/E_D)]}{\partial E_D}$$

$$= P/E_D^2 > 0$$

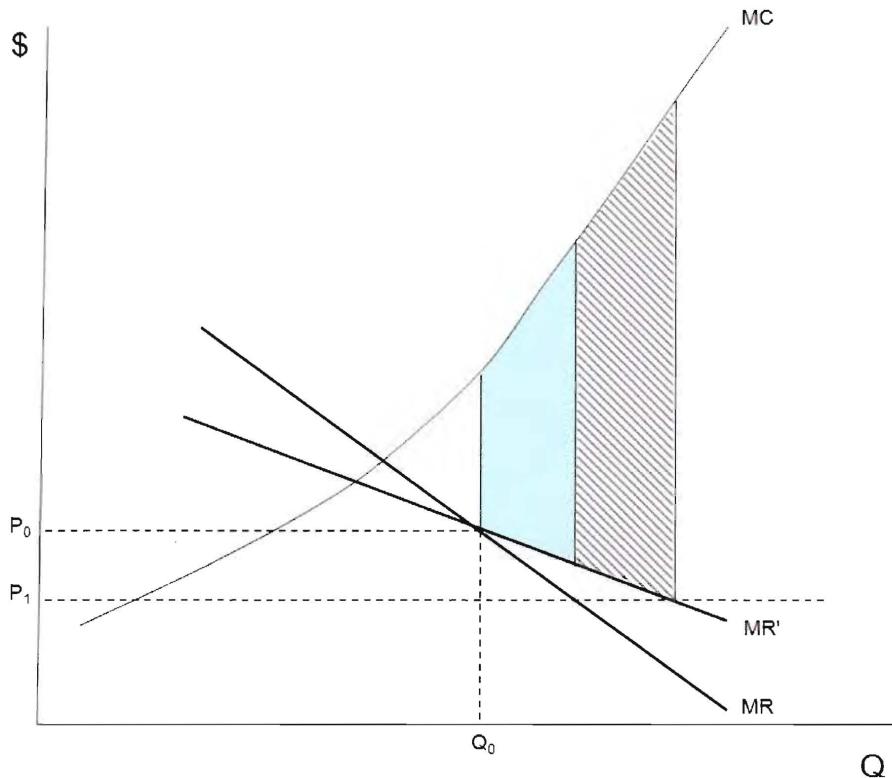
Thus, as demand is more elastic, the marginal loss of contribution is smaller. Second, how is the cumulative loss of contribution affected by the elasticity of demand? To answer this we examine the partial derivative of $-\Delta\text{Contribution}/\Delta P$ with respect to E_D . That is, from (11),

$$(13) \quad \frac{\partial [-\Delta\text{Contribution}/\Delta P]}{\partial E_D} = -[Q(P - MC)/P] < 0.$$

Recall E_D is a negative number. That means a mathematical increase in E_D represents less elastic demand. Thus, (13) says less elastic demand makes the cumulative loss in contribution smaller and more elastic demand makes the cumulative loss larger.

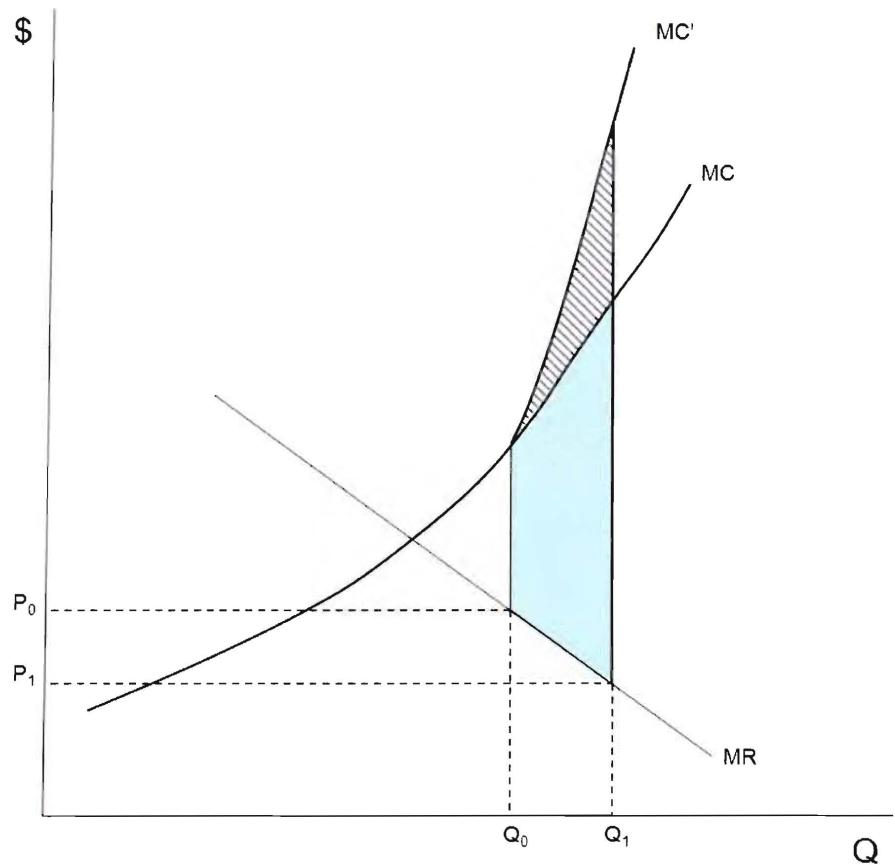
Result 4 is illustrated in Figure 2. More elastic demand is represented by the marginal revenue curve MR' . At any quantity greater than Q_0 the marginal loss of contribution is less (the $MC - MR$ gap is smaller) when demand is more elastic. However, with more elastic demand there is a greater increase in quantity demanded for a given price decrease. As quantity sold increases, so does the loss of contribution because of the ever-widening gap between marginal cost and marginal revenue. The result is that the firm loses more and more contribution with each additional sale.

Figure 2: Contribution Loss is Greater for More Elastic Demand



Result 5 is established graphically in Figure 3. Increasing marginal cost is reflective of diminishing marginal returns. The more rapidly marginal cost increases as output is expanded, the greater the contribution loss from further price reductions below the contribution-maximizing level. MC' indicates the case where marginal cost increases more rapidly. A change in regulation that further decreases price has the same revenue impact (as depicted in Figure 1), but a greater cost impact. That is, with steeper marginal cost the marginal loss of contribution is greater (the $MC - MR$ gap is wider) for any output level and this gap increases by even more as output increases. Consequently, the cumulative loss of contribution is greater when marginal cost is steeper.

Figure 3: Contribution Loss is Greater when the Marginal Cost is Steeper



VERIFICATION

I, B. Kelly Eakin, verify under penalty of perjury under the laws of the United States that
the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on February 28, 2013.



B. Kelly Eakin

VERIFICATION

I, Mark E. Meitzen, verify under penalty of perjury under the laws of the United States
that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on February 28, 2013.



A handwritten signature in black ink, appearing to read "Mark E. Meitzen". The signature is fluid and cursive, with the first name "Mark" on the left and the last name "E. Meitzen" on the right. A horizontal line is drawn beneath the signature.

Mark E. Meitzen

Rennicke

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

Ex Parte No. 711

**PETITION FOR RULEMAKING TO
ADOPT REVISED COMPETITIVE SWITCHING RULES**

**Verified Statement
of
William J. Rennicke
Partner
Oliver Wyman, Inc.**

March 1, 2013

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Statement of William J. Rennicke, Partner, Oliver Wyman

I. Introduction and Qualifications

I am William J. Rennicke, a Partner with Oliver Wyman, Inc. Oliver Wyman is a leading general management consulting firm. It maintains one of the largest practices in the world dedicated to serving the transportation and logistics sectors. That practice provides a comprehensive set of services and capabilities to transportation carriers across all modes, and to the users and regulators of transportation services. Oliver Wyman's transportation clients include national and regional governments on six continents, as well as many of the world's largest users of rail services, railroads, motor carriers, leasing companies, and industrial and consumer manufacturing firms.

I have been a railroad executive and a consultant to railroads for more than 40 years. I have worked extensively with the railroad industry in the United States and Canada, and also have worked with railways in Europe, Asia, South America, Australia, and Africa. I specialize in railroad strategic planning, cost analysis, revenue management, and operations. I have particular expertise in transportation pricing, restructuring, organizational design, and transactions (including mergers and acquisitions) to improve the performance of rail operators, major rail equipment suppliers, and users of transportation services. I have worked with senior executives at all of the major North American railroads, as well as with senior officials at many government-owned railroads worldwide. I have testified before the United States Congress and the Canadian Parliament, as well as federal transportation agencies, concerning railroad regulation, rate policy, access issues, and rail mergers. I have spoken and published widely on issues affecting the railroad industry.

Before joining Oliver Wyman, I was a vice president of the Boston & Maine Railroad. During my tenure, I managed rail industry service performance project case studies as part of the industry-wide Freight Car Utilization Program. I have also held operating positions with the Southern Pacific (now Union Pacific) and New Haven (now CSX) railroads and was a transportation consultant with Deloitte Haskins & Sells (the predecessor of Deloitte & Touche). I have a B.S.B.A. in accounting from the School of Business Administration at Georgetown University and an M.B.A. with a concentration in transportation and logistics from the University of Minnesota. I am also a member of the Council of Supply Chain Management Professionals.

I was asked by the Association of American Railroads (AAR) to provide an analysis of the critical factors underlying railroad service improvements over the past several decades and to analyze how those factors would be affected by the revised switching rules proposed by the National Industrial Traffic League (NITL). My Verified Statement responds to the request of the Surface Transportation Board (STB) for information concerning how the proposal would affect rail network efficiency.¹

My key findings are:

- The economic recovery of the railroad industry and rail service improvements over the past several decades have been based in large part on rationalization of the railroad network and simplification of railroad operations. A critical element of simplifying operations has been a reduction in inefficient or unnecessary routings and car handlings and the substitution of single-line service for interline service. Implementation of the NITL proposal would threaten

¹ Surface Transportation Board, Notice, Docket Number EP 711, “Petition for Rulemaking to Adopt Revised Competitive Switching Rules,” Served July 25, 2012, p. 9.

to increase significantly the percentage of cars interchanged and the complexity of railroad operations.

- The railroad network has evolved over the past several decades to move repetitive shipments over long distances with minimal switching en route. The current network is composed of high-density main lines that connect large classification yards. Between 1987 and 2010, there was a net reduction of approximately 11,000 miles of yard track, or 30 percent of the total,² and the network today may not have the yard capacity to handle a forced increase in the interchange of carload and unit train traffic. Attempting to impose increased interchanging on this network will lead to thousands of localized problems and conflicts that railroads, shippers, and regulators would need to resolve. The STB may be called upon to address many of these issues, and the backlog of issues awaiting resolution would add to uncertainty and delay decisions concerning actions to address congestion and the disruption of railroad operations.
- One of the most critical problems with the NITL proposal is that it would introduce instability into a railroad network designed to handle repetitive flows efficiently. While the railroad industry has demonstrated its ability to adjust to changes in traffic patterns due to mergers, economic changes, and inclement weather, these adjustments have not always gone smoothly. Moreover, increasing the amount of switching between railroads will consume reserve capacity that buffers the impact of disruptions and surges and allows quick recovery from weather events and incidents.

While it is not possible to know exactly what would happen, adopting the NITL proposal would create conditions that in the past have caused significant service disruptions. Unlike

² Class I Railroad Annual Report R-1 Schedule 700, Column H. Adjusted in 2003 to account for CSX track reclassification.

mergers, however, in which the railroads can control traffic flows and plan to accommodate changes, the railroads in most cases will have little or no advance notice of changes in traffic flows as a result of implementation of the NITL proposal, and so will have no ability to plan to accommodate these altered flows. Moreover, these conditions likely will persist, as individual shippers would be given the ability to force railroads to perform additional switching at locations throughout the rail network and deprive railroads of the ability to control their operations.

The increase in interchange events that would occur under the NITL proposal would reverse gains in railroad productivity made during the past decade, while adding billions of dollars in operating and capital expenses. I estimate that the net effect if, for example, just 25 percent of the cars that could be forced to interchange under the proposed rule actually do so, would be to create the same number of interchange events per car per trip as existed in 1996-1998 – but without the infrastructure that existed at that time to accommodate these events. Interchange events per car per trip are highly correlated with railroad productivity, measured as revenue ton-miles per dollar of operating expense. Railroad productivity was 7.1 percent worse in 1996-1998 than it was in 2010. Key measures of railroad efficiency would deteriorate as well. Car-miles per car per car-day, which is a measure of system fluidity, improved from 57.2 in 1987 to 74.4 in 2010, but would likely roll back to 68.8. Car trips per year, which is a measure of equipment utilization that is important to both railroads and shippers with car fleets, improved from 16.8 in 1987 to 21.8 in 2010, but could roll back to 19.6.

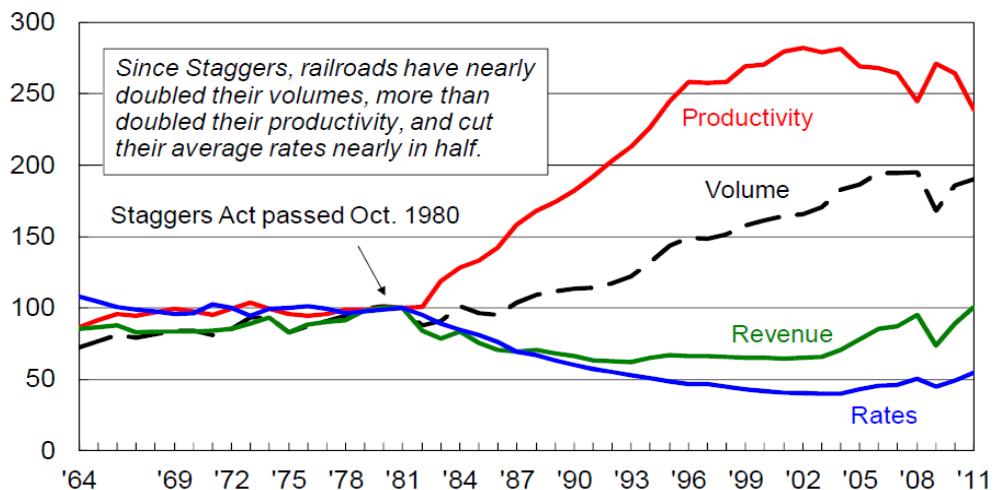
II. Overview

This proceeding represents an important moment in the history and evolution of the railroad industry in the United States. The Surface Transportation Board (STB) can choose either to leave in place a system of regulations that has facilitated vast improvements in railroad efficiency and service, creating cost savings over the past 30 years (with most of the cost savings passed through to shippers), or it can introduce a fundamentally different regulatory structure that would likely degrade the reliability and efficiency of the system for all shippers.

As the Commissioners and professional staff of the STB know, at the beginning of the 1960's the railroad industry in the United States was in shambles. Most of the railroads in the Northeast and Midwest were well along the path that would lead to their bankruptcy a decade later, and railroads in the balance of the country were far from being able to earn their cost of capital. Passage of the Staggers Rail Act of 1980, and its implementation by the Interstate Commerce Commission (ICC) and later the STB, created an inflection point for the railroad industry. For the first time in nearly 100 years, railroads were allowed to manage the full range of their commercial and operating activities, in most respects on the same basis as other industries in the United States, including the railroads' own customers. As demonstrated in Exhibit II-1, the results of this reform have been dramatic: Since passage of the Staggers Act, freight railroads in the United States have more than doubled their productivity while cutting their average rates nearly in half. The industry, its customers, and the public interest all are beneficiaries of this performance.

Exhibit II-1: Indexed US Freight Railroad Performance Since the Staggers Act³

1980 = 100



The National Industrial Transportation League (NITL) proposal that is being considered in this proceeding would, if adopted, threaten these gains. The NITL proposal would likely lead to significant losses in efficiency and service reliability and increase network complexity, all of which would make the railroad industry less efficient and less competitive. The outcome would be detrimental to the public interest and shippers, including those shippers that would purportedly benefit from this proposed new regulatory structure.

The tremendous increase in productivity shown in Exhibit II-1 is the result, in large part, of the regulatory reforms enacted by the Congress and implemented by the ICC and STB. It is not accidental that a surge in productivity began in 1980 with the passage and enlightened implementation of the Staggers Act. Under the regulatory regime in place over the past three decades, the railroad industry has been permitted to rationalize its physical plant and simplify its operations. The railroads have consolidated traffic onto fewer, high-density main lines and significantly reduced the percentage of railcars interchanged between railroads. These initiatives

³ Note: "Rates" is inflation-adjusted revenue per ton-mile. "Volume" is ton-miles. "Productivity" is revenue ton-miles per constant dollar of operating expense. The decline in productivity in recent years is mainly due to the effect of higher fuel prices in the productivity calculation. Source: "An Overview of America's Freight Railroads," Association of American Railroads ("AAR"), July 2012, p. 5.

have reduced the number of times, on average, that a railcar is handled during a trip. This has been accomplished both through the building of “blocks” of cars on high-density routes that skip handling at intermediate classification yards and by reducing car handling related to interchange. Reducing the number of times cars are handled decreases the time that cars sit in yards waiting to be processed, increases reliability, reduces operating expenses, and improves safety. All of these efficiency improvements have benefited shippers.

The NITL proposal, by implementing a form of forced access, would fundamentally reverse this pattern and introduce operational and network complexity. It would increase car handlings and disrupt and fragment traffic flows that the railroads have optimized their networks to accommodate. The inevitable result would be slower and less reliable service, provided at a higher cost. While it is not possible to know exactly how the network would respond,⁴ implementation of the NITL proposal would create conditions of operational and network change similar to those that occurred during major rail mergers, but *without* the affected railroads having the ability to plan to accommodate the changes and *with* the prospect of having to cope with ongoing changes caused by the sum of individual shipper decisions over time. Experience teaches that such conditions can lead to significant congestion at urban railroad facilities, which can in turn spread and adversely affect service on large parts of the rail network.

Under the NITL proposal, some railroad lines and terminals that have been sized and configured over many years to handle relatively stable and predictable traffic flows consistent with single-line service would require new investment to accommodate additional work events generated by forced access, while other lines and yards would end up as surplus facilities and wasted investments. In some cases, it will not be possible to restore closed or smaller yards. In

⁴ The Comments of the Association of American Railroads identify the unknowns in the NITL proposal and the limitations in data that limit the ability to identify all of the impacts of forced access as suggested by the proposal.

all cases, such projects require prospective returns to justify the investment and lead time for design and permitting. Implementation of the NITL proposal would increase the cost of moving each ton of freight for all shippers, while degrading service on what has become the world's most efficient freight rail network.⁵

⁵ STB Ex Parte No. 705, Competition in the Railroad Industry, Statement of William J. Rennicke, Partner, Oliver Wyman, Inc., April 8, 2011, p. 5, Exhibit II-2.

III. Foundations of Improved Railroad Service

Over the past several decades, the operating and financial performance of the railroad industry in the United States has improved dramatically. Railroads are complex entities, and their performance improvement has been the result of many interrelated factors (Exhibit III-1). The primary driver, however, has been the ability of the railroads to rationalize their networks and simplify their operations:

“[Post 1980] the railroads focused on making their operations more efficient by shedding non-profitable lines to regional and short-line railroads, removing antiquated track and facilities, and fostering labor productivity gains. These efficiency gains resulted in reduced prices....For the first 15 years of this period, the railroad industry reduced costs by over \$17 billion. Railroads have passed on to shippers approximately 80 percent of that cost savings.”⁶

“The best profits [come] from running big trains and keeping them moving, and using track efficiently matching traffic to infrastructure with some wiggle room (but not too much), and, most importantly, minimize switching. Simplify, simplify, simplify. A simpler network runs better, and is more profitable.”⁷

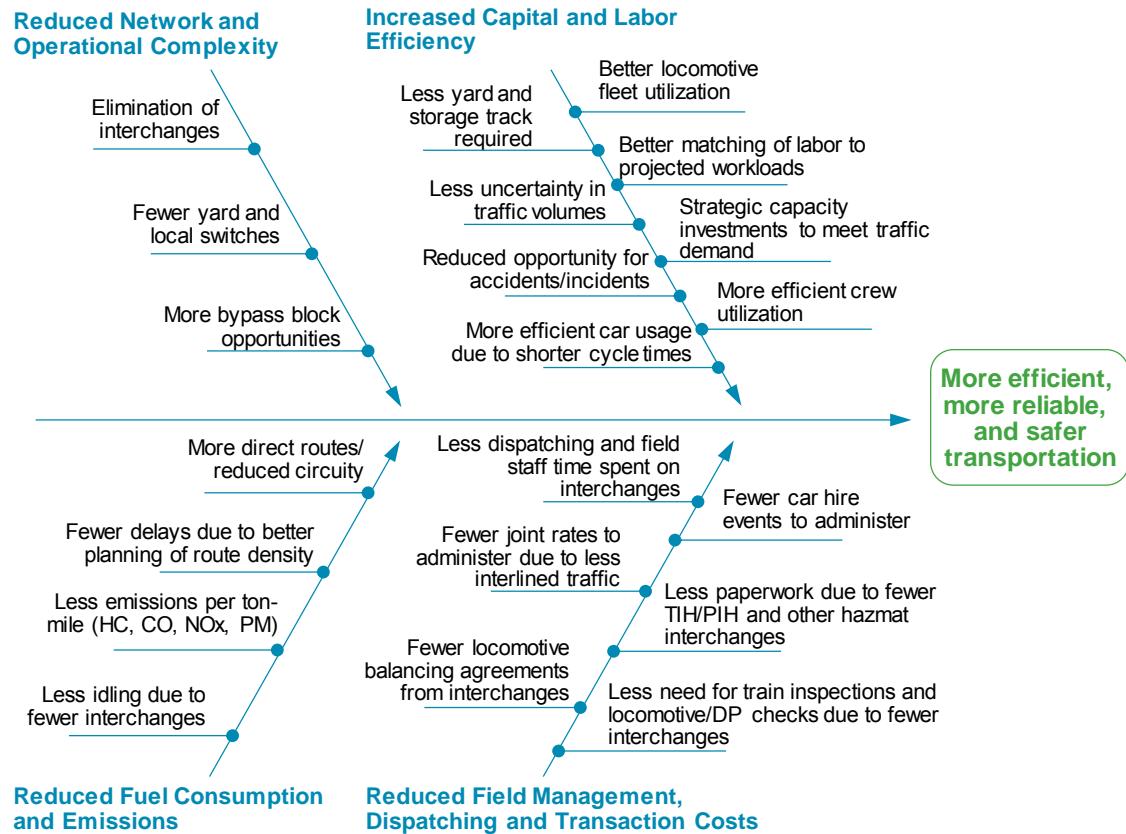
This rationalization process was facilitated first by the reorganization of the bankrupt railroads in the Northeast and Midwest by the United States Railway Association (USRA) and then by the regulatory reforms created by the Staggers Rail Act of 1980. Taken together, USRA and the

⁶ “National Rail Plan,” US Federal Railroad Administration, September 2010, p. 15.

⁷ “State of the Industry Past, Present and Future,” James W. McClellan, Atlanta Rail Planning Conference, October, 2012.

Staggers Act enabled the railroad industry to sharply reduce the number of Class I railroads, eliminate redundant routes and routings, and reduce the number of interchanges.

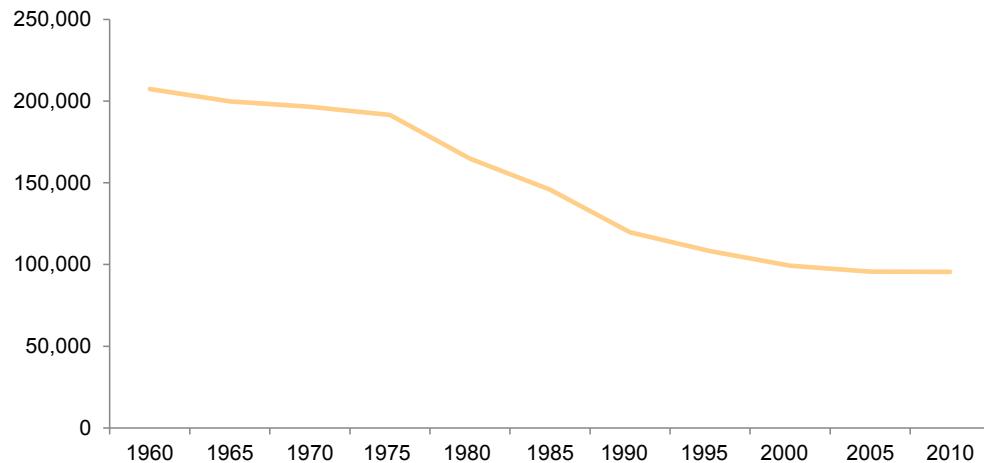
Exhibit III-1: Sources of Railroad Performance Improvement



Rationalization of the railroad network: Between 1960 and the 2010, the number of Class I railroads declined as smaller regional lines combined to extend their length of haul and eliminate duplicative facilities. As Exhibit III-2 shows, during the same period, route miles of Class I railroads declined from 207,000 to 95,600, as some railroads were liquidated, merging railroads eliminated inefficient or duplicative routes, and Class I railroads sold or leased lighter-density routes to specialist regional or shortline railroad companies. Between 1987 and 2010, the number of interchange locations appearing in the STB Carload Waybill Sample declined by more than

half, from 842 to 395.⁸ The collective impact of these changes greatly streamlined the US rail network and provided the productivity improvements that formed the foundation for reversing decades of market share loss.

Exhibit III-2: Change in Class I Railroad Route Miles, 1960-2010⁹

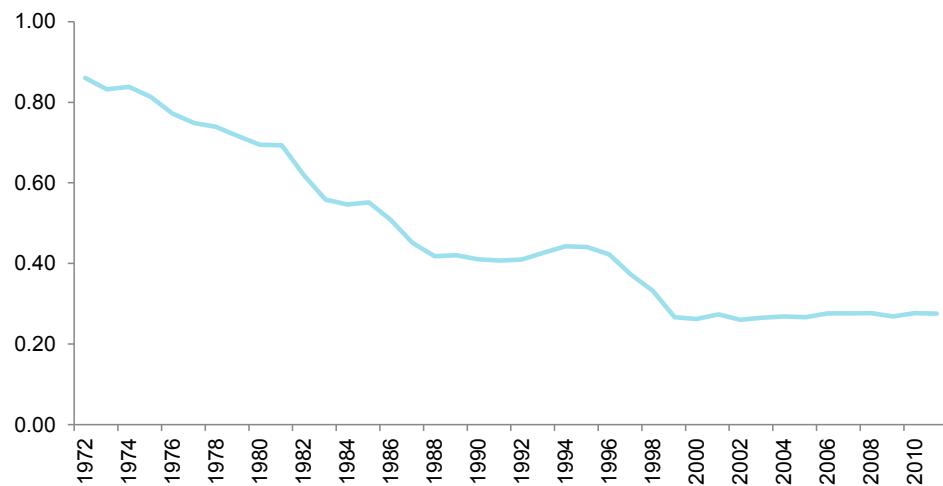


Simplification of operations: The reduction in the number of Class I railroads, combined with the reduction of inefficient/unnecessary routes and efforts to close redundant and little-used interchange locations, reduced the amount of traffic interchanged between railroad operators. This is illustrated in Exhibit III-3, which shows a steady decline in the average number of interchange events per railcar through the late 1990's and the maintenance of these historically low interchange event levels thereafter.¹⁰ Between 1972 and 2011, the average number of interchange events per railcar declined from 0.86 to 0.28. This reduction greatly simplified railroad operations, making them more reliable.

⁸ Based on unique Rule 260 junction locations appearing in the STB Carload Waybill Sample 1987-2010. The Waybill Sample does not include very low volume interchanges, since railroads with less than 4,500 annual carloads are not included in the STB sampling plan. Also, due to the nature of sampling, some low volume interchanges may be excluded in a given year.

⁹ US Department of Transportation, Bureau of Transportation Statistics, "National Transportation Statistics," Tables 1-1 and 1-2, and "Transportation Statistics Annual Report," Table 2-5.

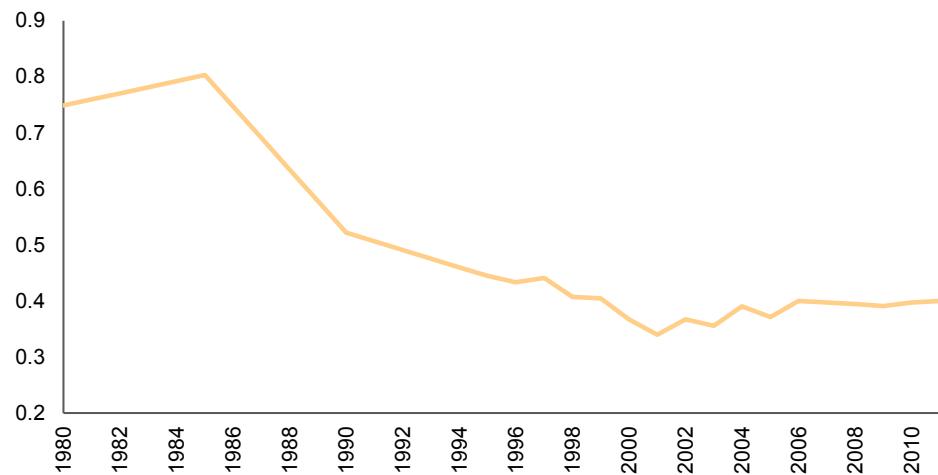
¹⁰ Interlined is defined as moving on more than one railroad. A railcar moving from origin to destination over three different railroads is counted as one interline move and two interchanges.

Exhibit III-3: Average Interchange Events per Car, 1972-2010¹¹

During the same period, railroads also were able to reduce car handling due to switching. As shown in Exhibit III-4, the total number of car handlings per 100 car-miles declined by 47 percent, from 0.75 in 1980 to 0.40 in 2011.

Exhibit III-4: Reduction in the Number of Car Handlings per 100 Car-Miles, 1980-2011¹²

US Class I Railroads, years 1981-1984, 1986-1989, and 1991-1994 were estimated from available data



Improved network efficiency: The result of rationalizing the railroad's physical plant and simplifying its operations has been a much more efficient railroad network. Exhibit III-5 shows

¹¹ Freight Commodity Statistics, 1972- 2011, US carload movements excluding intermodal traffic (STCCs 42, 43, 44, and 46), AAR; Oliver Wyman analysis.

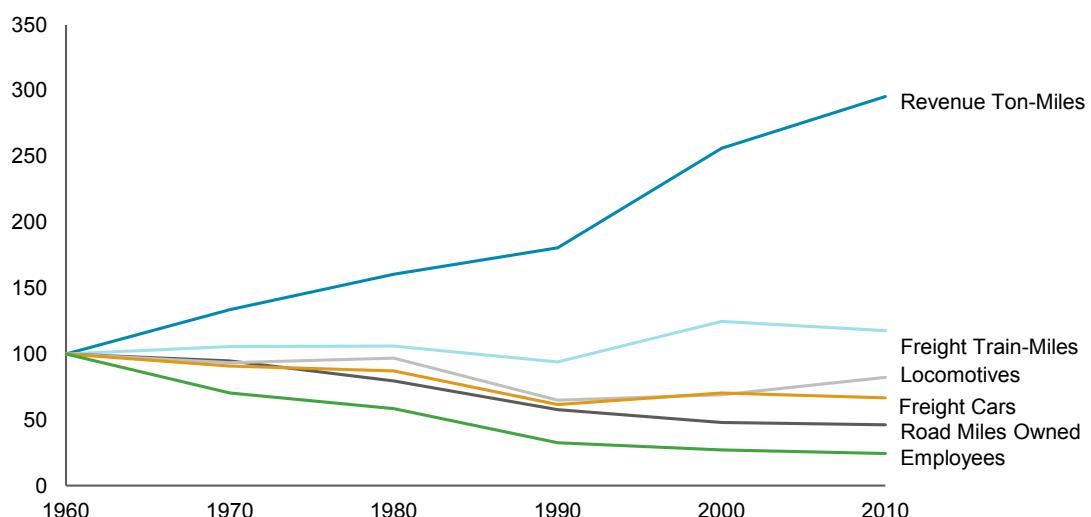
¹² Analysis of Class I Railroads and Freight Commodity Statistics, AAR; Oliver Wyman analysis.

that despite a sharp reduction in inputs, the railroads experienced a dramatic increase in output over the past 50 years. In 2010, Class I railroads produced 295 percent of the revenue ton-miles¹³ they produced in 1960, while using just:¹⁴

- 118 percent of the freight train miles
- 78 percent of the road miles
- 84 percent of the locomotives in service
- 67 percent of the freight cars
- 19 percent of the employees

Exhibit III-5: Indexed Increase in Railroad Productivity, 1960-2010¹⁵

1960 = 100



Much of the improvement in railroad efficiency is attributable to the rationalization of the railroad network, which has permitted railroads to move increasing amounts of traffic over a network of efficient, high-density main lines with fewer work events per shipment. As shown in Exhibit III-6, there is an almost perfect negative correlation between the average number of

¹³ A revenue ton-mile is the basic unit of output for a railroad. A revenue ton-mile equals one ton of freight moved one mile.

¹⁴ Source for bulleted statistics: Rail Fact Book, 2012 edition, AAR.

¹⁵ Ibid.

interchange events per railcar trip and railroad productivity, defined as revenue ton-miles per dollar of operating expense (inflation adjusted).¹⁶ In addition, Exhibit III-7 shows the dramatic increase in productivity in terms of density (revenue ton-miles per mile of road operated) that the railroads have experienced.

Exhibit III-6: Indexed Average Interchange Events per Railcar vs. Productivity, 1975-2010¹⁷

Productivity = revenue ton-miles/\$ of inflation-adjusted operating expense, Pearson correlation coefficient: -0.95

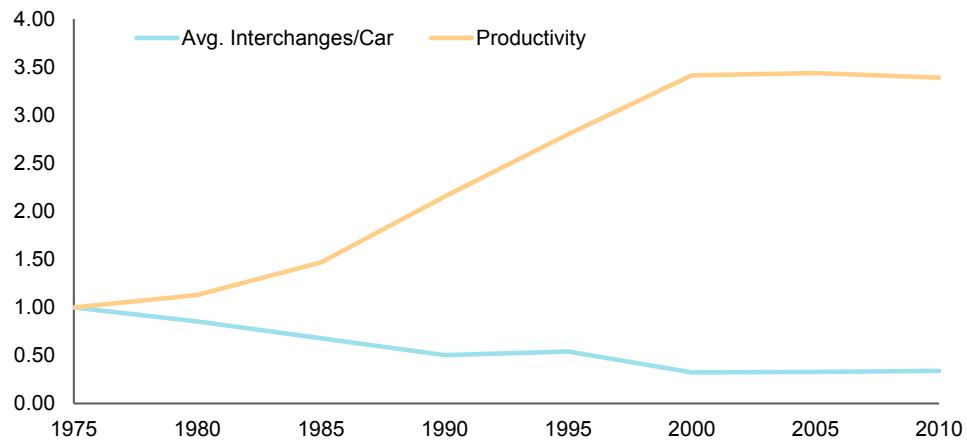
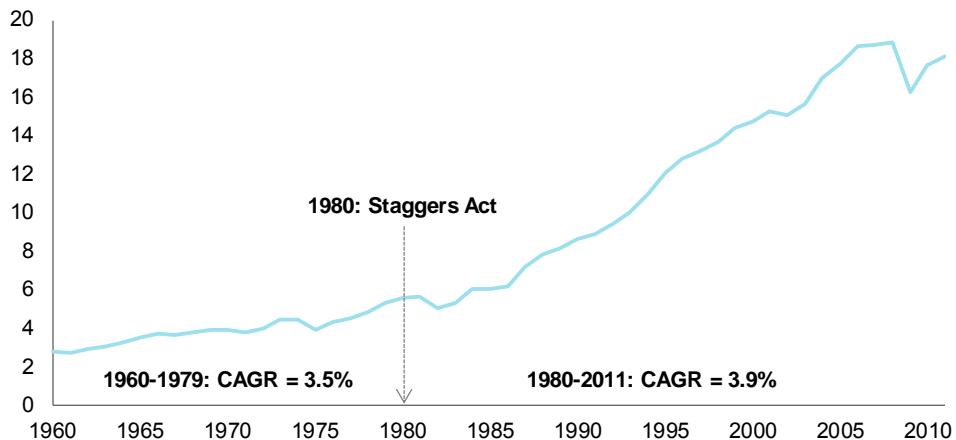


Exhibit III-7: Growth in Railroad Route Density, 1960-2010¹⁸

Millions of revenue ton-miles per mile of road operated



¹⁶ The -0.95 correlation coefficient means that historically as the railroads reduced the average number of interchanges, productivity increased. Although it is not possible to prove that a reduction in interchanges caused productivity to rise, there is strong evidence that reducing interchanges and the switching required to process these interchanges was an important part of simplifying the network and thus was a significant contributing factor.

¹⁷ Rail Fact Book, 2012 edition, op. cit., pp. 14 and 27 (opex and RTM); AAR email (avg. interchanges); <ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt> (CPI); Oliver Wyman analysis. The correlation coefficient was generated from actual values, not indexed values.

¹⁸ AAR data for Class I railroads. Miles equals route miles owned. CAGR is compound annual growth rate.

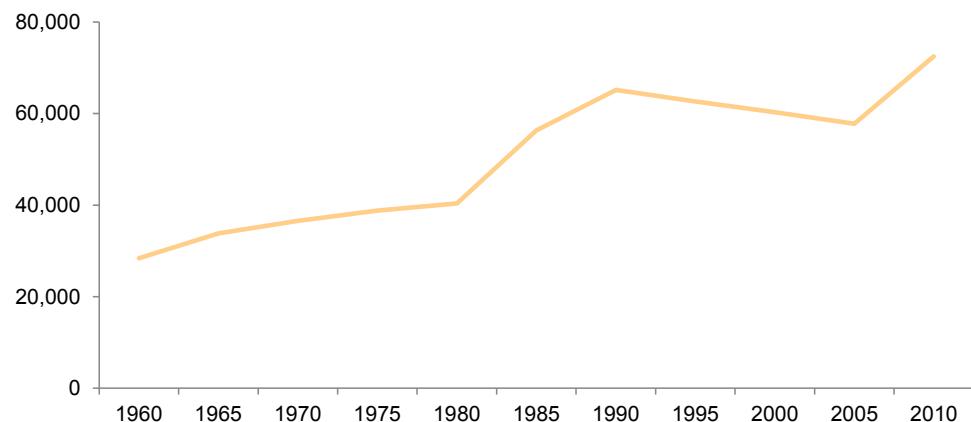
Improved reliability: Single-line service grew as merged railroads closed less efficient parallel routes and interchange locations. These changes not only permitted the railroads to concentrate traffic on efficient high-density routes, it also allowed them to reduce the number of times a car is handled. This reduction was achieved in two ways: First, each avoided interchange event eliminated at least one car handling. Second, concentrating traffic on fewer, high-density routes permitted railroads to build more blocks that bypass intermediate classification yards. Each intermediate switch that can be avoided through bypass blocks eliminates one car handling.

Eliminating car handlings is critical, because each time a car is handled at an interchange location or in an intermediate classification yard there is the possibility of a delay that would cause the car to misconnect, delaying its planned arrival time. In some cases, the arrival time is contractually guaranteed to the shipper but, even when it is not, the reliability of the car's arrival is the factor of greatest concern to shippers. Even when a railroad's reliability at each car handling event is very high – more than 90 percent – introducing additional events materially degrades the railroad's probability of meeting the service plan and delivering a car on time.

One measure of improved efficiency due to the reduction in car handlings at interchange locations and intermediate switching yards made possible by network rationalization and simplification of railroad operations is improvement in net ton-miles¹⁹ per train hour, which explicitly includes terminal delays.²⁰ As Exhibit III-8 shows, since 1960, Class I railroads have increased net ton-miles per train hour by 155 percent.

¹⁹ A net ton-mile equals “the movement of a ton of revenue and/or non-revenue freight a distance of one mile. Includes a reasonable portion of the weight of exclusive work equipment and motorcar trains.” Railroad Ten Year Trends, 2001-2010 edition, AAR, p. 182.

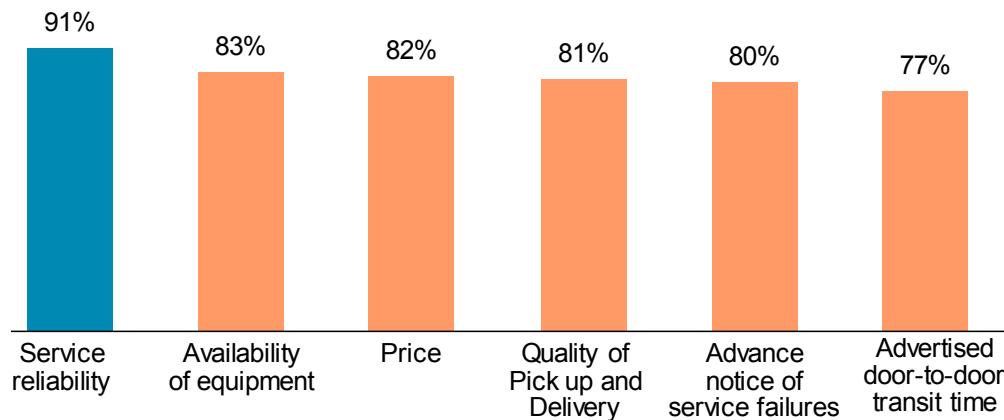
²⁰ Data is from 1980, since prior to that time the STB (then the ICC) definition did not include terminal delays.

Exhibit III-8: Railroad Net Ton-Miles per Train-Hour, 1960-2010²¹

Reliability matters, because transportation research consistently finds that service reliability is the most important consideration when shippers select a mode and transportation carrier. For example, as shown in Exhibit III-9, a survey by Oliver Wyman found that 91 percent of shippers rated service reliability as important or very important. The next most important consideration, equipment availability (which is heavily dependent on service reliability), was rated important or very important by 83 percent of shippers.

Exhibit III-9: Shipper Considerations in Selecting a Mode and Carrier²²

Percentage of respondents rating consideration important or very important

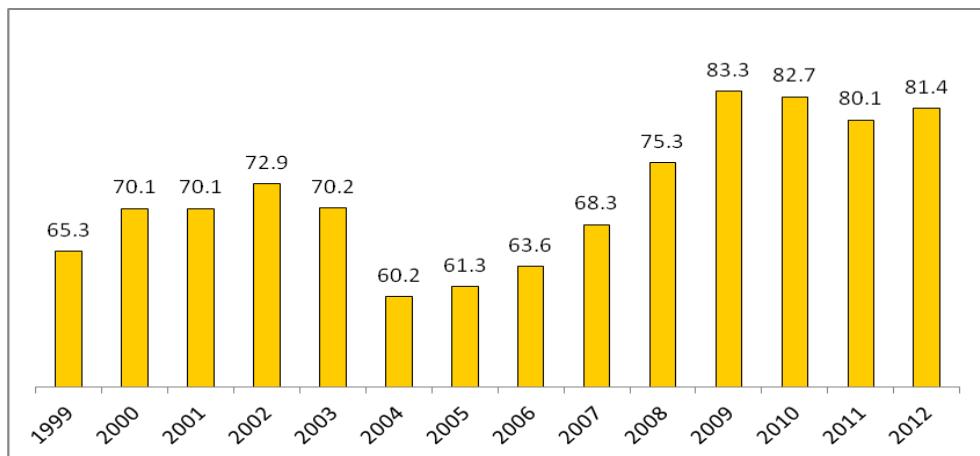


²¹ Rail Fact Book, 2012 edition, op. cit., p. 38.

²² Mercer Management Consulting (predecessor to Oliver Wyman), Presentation to the AAR Treasury/Finance Annual Meeting, "Railroad Service Measurement," January 27, 2004.

While there are no industry-wide measures of reliability, individual railroads do report railroad-specific measures. For example, Union Pacific tracks a Service Delivery Index that measures whether shipments arrive at their destinations on time. As shown in Exhibit III-10, the index shows that Union Pacific has improved this measure of service reliability significantly, by 28 percent between 1999 and 2010.

Exhibit III-10: Union Pacific Service Delivery Index, 1999-2010²³



In summary, for the past five decades, the railroad industry has endeavored to rationalize the railroad network in the United States and to simplify the operation of the freight rail system. Since passage of the Staggers Act in 1980, regulatory policy has been aligned with this effort. The result has been the creation of a highly efficient railroad industry based on moving traffic over a network of high-density main lines, minimizing intermediate handling at interchange locations and intermediate yards where possible, and optimizing the efficiency of those handlings when they are needed. Eliminating car handlings has allowed the railroads to increase the reliability of their service significantly, delivering to shippers the attribute they most desire in selecting a mode and carrier.

²³ Verified Statement of Lance M. Fritz, STB Ex Parte No. 705, Competition in the Railroad Industry, April 12, 2011, p. 10.

IV. Improved Service is the Result of Regulations Giving the Railroads More Control Over Routing and Interchange Decisions

Congress, the ICC, and the STB have understood that the key to achieving efficient rail transportation is to give railroads control over the routing of traffic. When railroads can determine how to route traffic, they can eliminate inefficient routes, reduce handoffs, and consolidate traffic on higher-density lines, thereby lowering their costs and improving their service. Regulatory actions following the Staggers Act that gave railroads more control over the handling and routing of traffic was a major factor driving the dramatic improvement in rail productivity that I discussed in the prior section of this statement.

Before the Staggers Act, railroads had limited power to concentrate traffic over the most efficient routings. Since the 1920s, the ICC had imposed protective conditions (known as DT&I conditions) when approving mergers, so as to keep open existing junctions and gateways and preserve the “right” of shippers to route traffic as they liked “over any or all existing routes and gateways.”²⁴ But this policy made it impossible for railroads to provide efficient service, which would have both expanded their traffic base and enabled them to pass through lower rates to shippers. Regulatory preservation of inefficient interchange locations and routes kept railroads’ costs high and prevented railroads from effectively and fully implementing the mergers of the 1960s and aggressively competing with other transportation modes, leading to the financial deterioration of the rail industry in the 1960s and 1970s.

Two years after the Staggers Act, in 1982, the ICC eliminated protective merger conditions, deciding that they were anticompetitive and contrary to public interest, and ordered that they

²⁴ See Detroit, T. & I. R.R. Co. – Control, 275 ICC 455, 492-93 (1950).

were not to be imposed in any future merger proceedings.²⁵ The ICC recognized that protective conditions were incompatible with the new market-focused framework established by the Staggers Act, which “emphasized the need for rail carriers to have flexibility to make individual ratemaking and routing choices.”²⁶

The ICC recognized that protective conditions placed arbitrary restrictions on railroads’ routing and interchange decisions that ultimately harmed all users of the rail network, by “prevent[ing] market forces from efficiently allocating railroad resources.”²⁷ Further, the ICC noted that railroads must be permitted to “winnow out inefficient routes” and that conditions relating to “operational arrangements” (such as service frequency) were economically inefficient.

²⁸ In the case of mergers, the ICC saw that DT&I type protective conditions would “hamper a newly consolidated carrier from realizing potential cost savings from consolidation. Thus, if a consolidated carrier were required to dissipate traffic among many lines, it may be unable to realize the economies of fuller use of certain lines or yard facilities.”²⁹

After Staggers, merger decisions celebrated the benefits of single-line service for both shippers and railroads; protective conditions focused instead on preserving access to two railroads only for two-to-one shippers. The STB has continued the ICC’s policies of not imposing standard DT&I conditions and of refusing to mandate maintenance of all existing routes and interchanges. For example, the STB has described such protective conditions as having “anticompetitive consequences, by precluding carriers from making route changes that

²⁵ See Traffic Protective Conditions, 366 I.C.C. 112 (1982).

²⁶ Traffic Protective Conditions, 366 I.C.C. 112 (1982) (“Conditions”), p. 119.

²⁷ Ibid., p. 130.

²⁸ Ibid., p. 122, 124.

²⁹ Ibid., p. 124.

improved efficiency and service.”³⁰ And the STB has stated that “We continue to believe that carriers . . . should be allowed the flexibility to determine what gateways and routings are most efficient . . . Although not all connecting carriers benefit from this shifting of traffic, shippers do benefit from this process.”³¹

In addition to acknowledging the importance of giving routing discretion to the railroads, the ICC and the STB have repeatedly recognized the superiority of single-line traffic over joint line routes:

“Single-line service has many advantages over joint-line service for both shippers and carriers. Interchange operations can be eliminated, reducing both operating and overhead costs and transit time; transaction costs are reduced; and incentives to provide less than efficient service (arising from per diem charges for railcars, rate divisions, or production externalities) are reduced. Thus, speed, reliability, and handling are enhanced. For these reasons, shippers tend to prefer single-line service over joint-line service.”³²

There are many advantages to using single-line routes, including greater system efficiency, improved use of equipment, and faster turnaround times:

“A single-line route can make more efficient use of equipment. By improving the use of both system-owned equipment and foreign cars, a single-line system can have a more efficient fleet exhibiting faster turnaround time and improved loading ratios. These efficiencies are achieved by the elimination of interchanges, a common equipment placement program, more accurate and responsive

³⁰ Can. Nat'l Ry. Co. – Control, FD No. 34000 at 9 (STB served Sept. 7, 2001).

³¹ CSX Corp. – Control, 3 STB 196 at 36 (STB served July 23, 1998).

³² CSX Corp. – Control – Chessie Sys. Inc., 363 ICC 521 at 553 (Sept. 23, 1980).

monitoring of the fleet, and the pre-blocking of cars, as well as a quicker response to equipment supply problems that may develop.”³³

That an integrated carrier would be able to offer more single-line service has been a key factor in the STB’s and ICC’s decisions approving railroad mergers. For example, when discussing the benefits of the proposed UP/SP merger, the STB found that “Some of the more significant benefits include substantially shorter and more efficient, single-line routes between many city pairs for major traffic flows.”³⁴

The STB and ICC have also acknowledged that shippers themselves prefer single-line service to multi-carrier transportation:

“Single-line service is important to shipper logistics strategies. Interchange between railroads can be costly. A single-line railroad route is becoming more important for carriers wanting to compete for service-sensitive freight. As a result of the new single-line service capability . . . shippers will likely see decreases in working capital requirements as base inventories shrink due to improved transit times, and as safety stocks of inventory are reduced because the combined system can eliminate the uncertainty of interchange. The transaction costs shippers incur in initial rate negotiations, in arranging equipment supply, in tracking shipments, and in billing and payment procedures, will likely be reduced.”³⁵

The ICC and the STB also have recognized that giving railroads more routing control and allowing railroads to consolidate traffic onto single-line routes has the benefit of producing more efficient capacity utilization, by consolidating traffic into a smaller number of well utilized

³³ Rio Grande Industries, Inc. – Control – S. Pac. Trans. Co., 4 ICC 2d 834, 895 (ICC Served Aug. 25, 1988).

³⁴ Union Pac. Corp. – Control – S. Pac. Rail Corp., 1 STB 233 at 88 (STB served Aug. 12, 1996).

³⁵ Burlington N., Inc. – Control – Santa Fe Pac. Corp., 10 ICC 2d 661 at 55 (ICC served Aug. 23, 1995).

facilities. For example, in one merger case the ICC noted that “Public benefits will be achieved through reduced transportation costs for applicants and improved service for shippers. This will be accomplished through facility consolidations at common points.”³⁶

Congress and the regulatory agencies have promoted a wide range of benefits for railroads and shippers over the past 30 years through regulation that gave the railroads more control over the handling and routing of traffic. As discussed in the remainder of my statement, the NITL proposal would only serve to reverse many of these benefits.

³⁶ Union Pac. Corp. – Control – Missouri, Kansas, Texas R.R. Co., 4, 5 ICC 2d 409, (May 13, 1988).

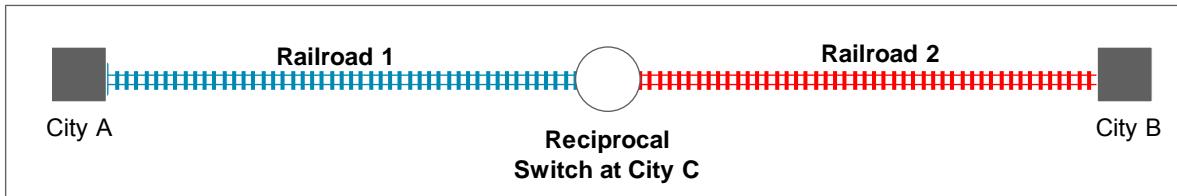
V. Characteristics and Operations of Interchanges

A car or a unit train that both originates and terminates on the same railroad is classified as “local” or “single-line” traffic. As shown in Exhibit III-3 above, 78 percent of non-intermodal carloads transported by Class I railroads moved in single-line service in 2011.

When a car or unit train originating on one railroad is physically moved onto the tracks of another railroad, and responsibility for the further movement of that car passes to that railroad, the car or unit train is said to be “interchanged.” Interchange can occur in two circumstances:

- **Interline traffic** occurs when two line haul railroads are partners in providing a service. This most often occurs when neither railroad can provide single-line service from origin to destination, because neither railroad serves both the consignor and the consignee. The railroads divide the revenue. The railroad originating the car or unit train classifies the traffic as “interline – forwarded,” while the railroad receiving the car or train classifies it as “interline – received.”³⁷
- **Reciprocal switching traffic** occurs when one railroad – the switching carrier – voluntarily moves traffic to an interchange with a line haul carrier (and vice versa). The switching carrier receives a switch fee paid by the line haul carrier. As illustrated in Exhibit V-1, voluntary reciprocal switching is a mutually beneficial arrangement that allows each of the railroads that are party to it to expand their commercial reach in markets in which they do not compete.

³⁷ Traffic that neither originates nor terminates on a railroad, but rather is received from one railroad and delivered to another, is classified as “bridge” or “overhead” traffic. Today, a Class I railroad most frequently bridges traffic between another Class I railroad and a short line railroad or between two short lines. It is unusual for a Class I railroad to bridge traffic between two other Class I carriers, a practice that was common 30 or more years ago.

Exhibit V-1: Reciprocal Switching Example

In this illustration, Railroad 1 serves a line connecting City A with City C and Railroad 2 serves a line connecting City B with City C. These railroads do not compete at City A or City B. Both railroads have constructed track networks at City C, but neither reaches all the shippers in the city. It is to the mutual benefit of both railroads to enter into a reciprocal switching agreement in which Railroad 1 delivers cars originating on its lines in City C and bound to City B to Railroad 2, and Railroad 2 delivers cars originating on its lines in City C bound to City A to Railroad 1.

It is essential to understand that reciprocal switching is fundamentally different from the forced access advocated in the NITL proposal, in that reciprocal switching is a voluntary, mutually beneficial and commercially based agreement that allows both carriers to expand their commercial reach.

In urban areas, railroads normally exchange interchange traffic (both interline and reciprocal switching) at yards. A railroad originating the traffic will run a way train³⁸ from its yard to the yard of the railroad receiving the traffic, leaving the cars on a receiving track in that yard. The railroad receiving the cars will classify (or “switch”) the interchanged cars by sorting them onto tracks within the yard depending on their destinations. Cars that are destined for other points on the railroad will be placed onto outbound road trains, while cars destined for local shippers will

³⁸ A “way train” originates in a yard and serves customers and interchanges located on one or more nearby lines. Way trains may also move cars between yards. A “road” train originates in a yard and moves an entire train to another yard on the same railroad, usually without serving customers or interchanges en route.

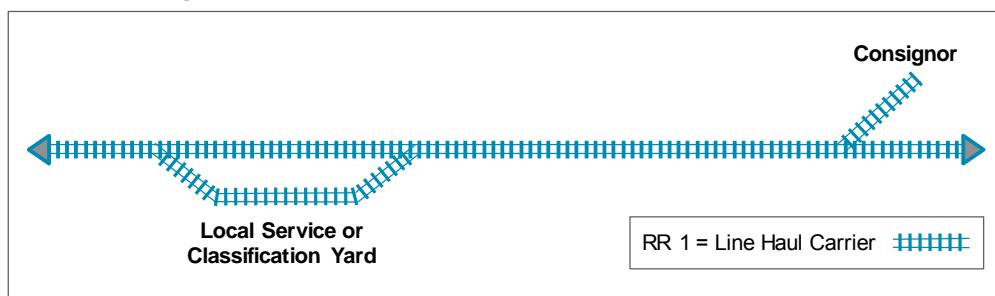
be delivered by way trains. Unit trains also can be interchanged in yards if there is sufficient space available.

In smaller towns and rural areas, cars and unit trains usually are exchanged at interchange tracks located at a point where the railroads cross or run near each other.³⁹ Interchange tracks can be located in one or more quadrants of the point at which the tracks cross and vary in length and capacity.

Let us consider the following six examples, which illustrate both single line and interchange operations.⁴⁰

Example 1 – Simple Single-Line Service: Let us first examine the steps required to originate a carload or unit train when no interchange is involved, because the railroad serves both the consignor and the consignee and the traffic moves in “single-line” service. This case is illustrated in Exhibit V-2. In this case, there are two way train moves, two industry switch events, and two yard switch events.

Exhibit V-2: Simple Single-Line Service Example



³⁹ At some points, designated as “revenue interchanges,” no physical interchange facilities may exist. In these cases, railroads divide revenue as if the traffic has been interchanged at that point, but by mutual agreement actually exchange the cars elsewhere for operating convenience.

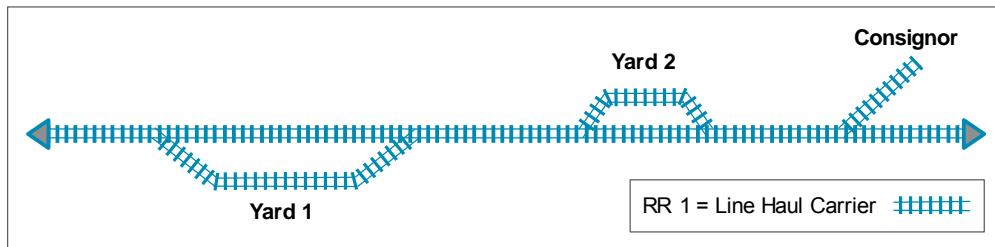
⁴⁰ These six examples are illustrative of the variety of ways that reciprocal switch operations may occur, but given the range of actual operations and the potential shifts of traffic cannot be comprehensive. The Comments of individual railroads in this proceeding also discuss specific examples.

| Step | Description | Responsible Railroad |
|------|--|----------------------|
| 1 | Yard switch to move empty car to way train | RR1 |
| 2 | Way train moves empty car to Consignor | RR1 |
| 3 | Industry switch to spot empty car at Consignor for loading | RR1 |
| 4 | Industry switch to retrieve loaded car from Consignor | RR1 |
| 5 | Way train moves loaded car to yard | RR1 |
| 6 | Yard switch of loaded car to outbound road train | RR1 |

In this case, the line haul carrier serves the consignor directly and the traffic moves in single-line service. This is the least complex situation. It occurs in both urban and rural areas. As detailed in the table above, Railroad 1 switches an empty car into a way train that is being made up in its yard. The way train moves the empty car from the yard to the Consignor and spots the car on the Consignor's track for loading. Once the car is loaded, another way train retrieves the loaded car and moves it to the yard. Railroad 1 then switches the car into a road train being made up in that yard. A critical factor in the reliability of the operation is that all elements are planned and controlled by Railroad 1.

Example 2 – Complex Single-Line Service: Next, let us examine a somewhat more complex situation involving single-line service, which is illustrated in Exhibit V-3. This example involves four way train moves, two industry switch events, and four yard switch events.

Exhibit V-3: Complex Single-Line Service Example

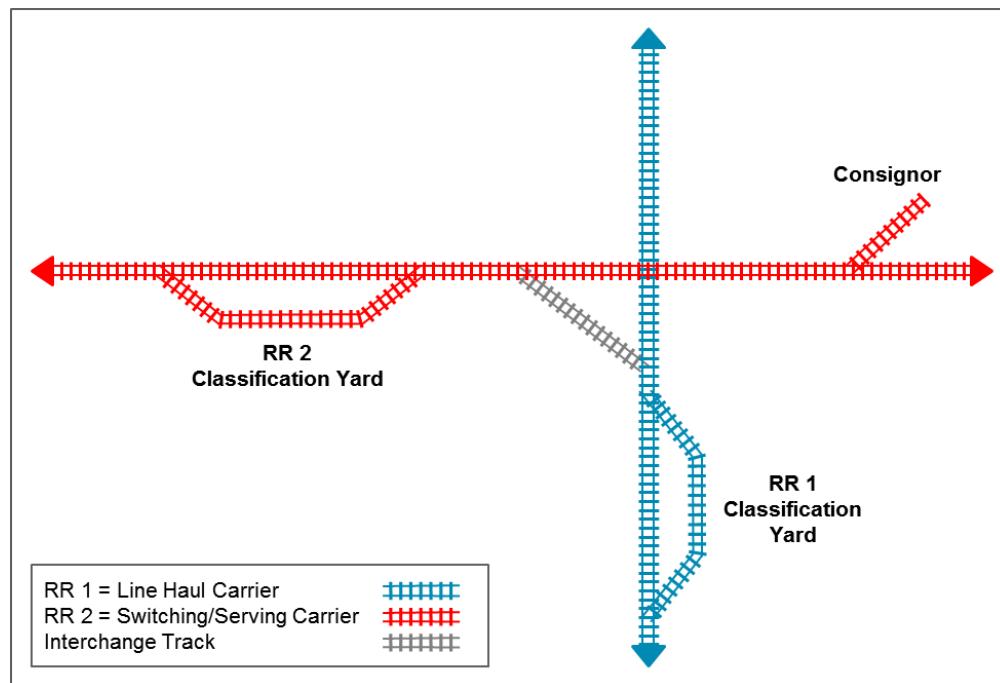


| Step | Description | Responsible Railroad |
|------|--|----------------------|
| 1 | Yard switch in Yard 1 to move empty car to way train | RR1 |
| 2 | Way train moves empty car to from Yard 1 to Yard 2 | RR1 |
| 3 | Yard switch in Yard 2 to move empty car to a local service way train | RR1 |
| 4 | Local service way train moves empty car to Consignor | RR1 |
| 5 | Industry switch to spot empty car at Consignor for loading | RR1 |
| 6 | Industry switch to retrieve loaded car from Consignor | RR1 |
| 7 | Local service way train moves loaded car to Yard 2 | RR1 |
| 8 | Yard switch in Yard 2 to move loaded car to way train bound for Yard 1 | RR1 |
| 9 | Way train moves loaded car from Yard 2 to Yard 1 | RR1 |
| 10 | Yard switch in Yard 1 to move loaded car to outbound road train | RR1 |

In this situation, the way train serving the Consignor operates from Yard 2 but Railroad 1 does not have a suitable empty car available in Yard 2 to fill the Consignor's order. Therefore, it must bring an empty car from a nearby local service yard or a classification yard (Yard 1). This requires four movements in addition to those described in the less complex case illustrated in Example V-2 above. At the beginning of the move, Railroad 1 must switch the empty car into a way train at Yard 1 and the way train must move the empty car from Yard 1 to Yard 2. At the end of the move, Railroad 1 must switch the loaded car into a way train at Yard 2 and the way train must move it from Yard 2 to Yard 1, where it can be switched into an outbound road train. Except in the most unusual circumstances, this is as complex as a single-line service gets. Again, it is critical that the entire operation is planned and controlled by Railroad 1.

Example 3 – Simple Interchange in an Urban Area: Now let us examine the least complex form of operation involving interchange between railroads, which is illustrated in Example V-4. This simple interchange involves two interchange train moves (both on RR1), two way train moves (both on RR2), two industry switch events (both on RR2), and four yard switch events (two on each railroad).

Exhibit V-4: Simple Urban Interchange Example



| Step | Description | Responsible Railroad |
|------|---|----------------------|
| 1 | Yard switch in RR1 Yard to move empty car to interchange train | RR1 |
| 2 | Interchange train moves empty car to from RR1 Yard to RR2 Yard | RR1 |
| 3 | Yard switch in RR2 Yard to move empty car to way train | RR2 |
| 4 | Way train moves empty car to Consignor | RR2 |
| 5 | Industry switch to spot empty car at Consignor for loading | RR2 |
| 6 | Industry switch to retrieve loaded car from Consignor | RR2 |
| 7 | Local service way train moves loaded car to RR2 Yard | RR2 |
| 8 | Yard switch in RR2 Yard to move loaded car to interchange block | RR2 |
| 9 | Interchange train moves loaded car from RR2 Yard to RR1 Yard | RR1 |
| 10 | Yard switch in RR1 Yard to move loaded car to outbound road train | RR1 |

In this relatively simple case involving interchange, RR1 is the line haul carrier that will move the car over the road to its destination. RR2 is the switching carrier, which will move only a short distance from its yard to the Consignor and back. It is important that this case takes place in an urban area where the railroads' yards are relatively close together and so interchange can take place in RR2's yard rather than at the interchange track.

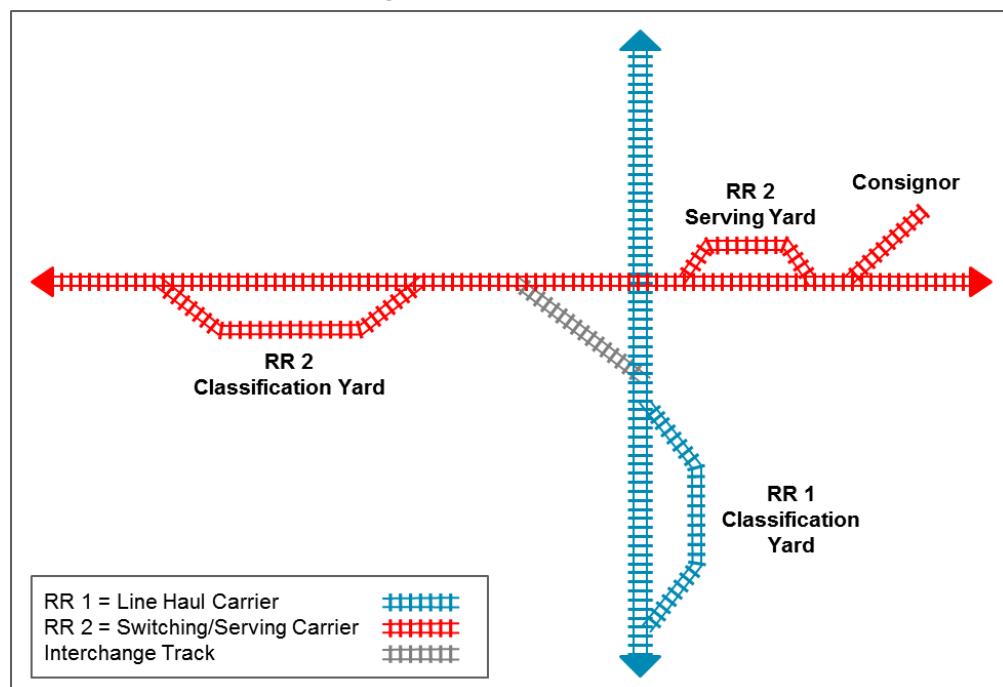
As the line haul carrier, RR1 will supply the empty car. RR1 will switch the empty car into an interchange train originating at its yard, and the interchange train will take the empty car directly to RR2's yard. RR2 will then switch the empty car into a way train originating in its yard. The way train will move the car to the Consignor and spot it on the Consignor's track for loading. Once the car is loaded, a way train will retrieve the car and move it to RR2's yard. The loaded car will then be switched into an interchange block that will be picked up by an interchange train operated by RR1. The interchange train will move the loaded car to RR1's yard, where it will be switched into an outbound road train.

A critical factor in the reliability of this move is that two railroads are involved and therefore no one railroad is responsible for planning and executing the entire operation. As we will discuss later, in most cases, RR2 will not receive notice of the inbound interchange train until shortly before it arrives. The schedules of the interchange trains operated by RR1 and the way trains operated by RR2 are unlikely to be coordinated, so it is common that the shipment would be delayed for at least one day when it is interchanged to RR2 and for another day when it is interchanged back to RR1.

Example 4 – Complex Interchange in an Urban Area: Now, let us examine a more complex and more common interchange move in an urban area, which is illustrated in Exhibit V-5. This case involves two interchange train moves (on RR1), four way train moves (on RR2), two industry switch events (on RR2), and six yard switch events (two on RR1, four on RR2).

Allowing shippers to sporadically alter complex interchange events in urban areas would be among the most problematic effects of the NITL proposal. Scarce line and yard capacity in urban areas would make it especially difficult to accommodate the shipper-controlled changes in traffic volumes and operating patterns that would be brought about by the NITL proposal.

Exhibit V-5: Complex Urban Interchange Example



| Step | Description | Responsible Railroad |
|------|--|----------------------|
| 1 | Yard switch in RR1 Yard to move empty car to interchange train | RR1 |
| 2 | Interchange train moves empty car to from RR1 Yard to RR2 Classification Yard | RR1 |
| 3 | Yard switch in RR2 Classification Yard to move empty car to way train | RR2 |
| 4 | Way train moves empty car from RR2 Classification Yard to RR2 Serving Yard | RR2 |
| 5 | Yard switch to move empty car to way train serving Consignor | RR2 |
| 6 | Way train moves empty car to Consignor | RR2 |
| 7 | Industry switch to spot empty car at Consignor for loading | RR2 |
| 8 | Industry switch to retrieve loaded car from Consignor | RR2 |
| 9 | Way train moves loaded car to RR2 Serving Yard | RR2 |
| 10 | Yard switch in RR2 serving yard to move loaded car to way train going to RR2 Classification Yard | RR2 |
| 11 | Way train moves loaded car from RR2 Serving Yard to RR2 Classification Yard | RR2 |
| 12 | Yard switch in RR2 Classification Yard to move loaded car to interchange block | RR2 |
| 13 | Interchange train moves loaded car from RR2 Classification Yard to RR1 Yard | RR1 |
| 14 | Yard switch in RR1 Yard to move loaded car to outbound road train | RR1 |

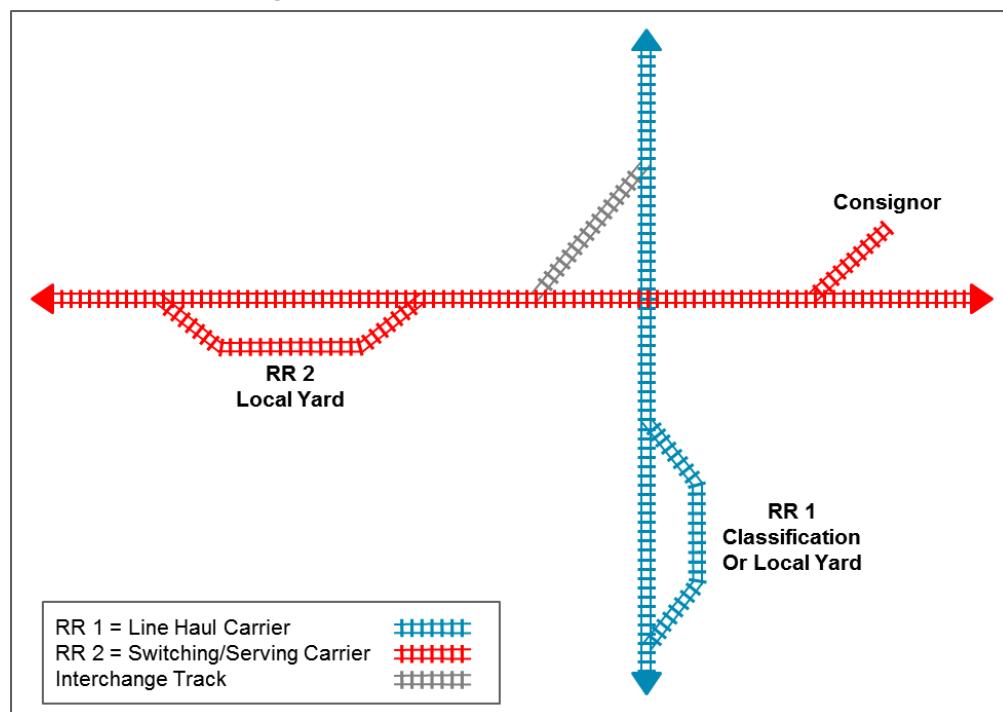
In this case, the Consignor is served from a serving yard to RR2 that is a satellite to the RR2 Classification Yard where interchange takes place. This requires four movements in addition to those described in the less complex case illustrated in example illustrated in Exhibit V-4 above.

Upon arrival of the empty car at its classification yard, RR2 must switch the empty car into a way train bound for the serving yard, and the way train must then move the empty car from the classification yard to the serving yard. Similarly, upon arrival of the loaded car at the serving yard, RR2 must switch the car into a way train bound for the classification yard and the way train must move the loaded car from the serving yard to the classification yard.

In urban areas, it is not uncommon for a railroad to receive interchange at a major yard and then distribute interchanged cars to smaller serving yards. Way trains that serve the railroad's customers originate in these smaller serving yards. As with the example illustrated in Exhibit V-4, it is unlikely that RR1 and RR2 will coordinate the schedules of their interchange and way trains and so it is likely that each shipment will be delayed for at least one day in each direction.

Example 5 – Simple Interchange Outside of an Urban Area: Let us now consider a case involving an interchange in a rural area, small city, or town, which is illustrated in Exhibit V-6. This example involves four interchange train moves (2 on each railroad), six way train moves (2 on RR1, 4 on RR2), 2 industry switch events (on RR2), and four yard switch events (2 on RR1, 2 on RR2).

Exhibit V-6: Simple Interchange Outside of an Urban Area



| Step | Description | Responsible Railroad |
|------|--|----------------------|
| 1 | Yard switch in RR1 Yard to move empty car to way train | RR1 |
| 2 | Way train moves empty car to from RR1 Yard to interchange | RR1 |
| 3 | Interchange switch to drop empty car | RR1 |
| 4 | Interchange switch to pick up empty car | RR2 |
| 5 | Way train moves empty car from interchange to RR2 Local Yard | RR2 |
| 6 | Yard switch to move empty car from inbound way train to way train serving Consignor | RR2 |
| 7 | Way train moves empty car to Consignor | RR2 |
| 8 | Industry switch to spot empty car at Consignor for loading | RR2 |
| 9 | Industry switch to retrieve loaded car from Consignor | RR2 |
| 10 | Way train moves loaded car to RR2 Local Yard | RR2 |
| 11 | Yard switch in RR2 local yard to move loaded car from inbound way train to interchange way train | RR2 |
| 12 | Way train moves loaded car from RR2 Local Yard to interchange point | RR2 |
| 13 | Interchange switch to drop loaded car | RR2 |
| 14 | Interchange switch to pick up loaded car | RR1 |
| 15 | Way train moves loaded car from interchange to RR1 Yard | RR1 |
| 16 | Yard switch in RR1 Yard to move loaded car to outbound road train | RR1 |

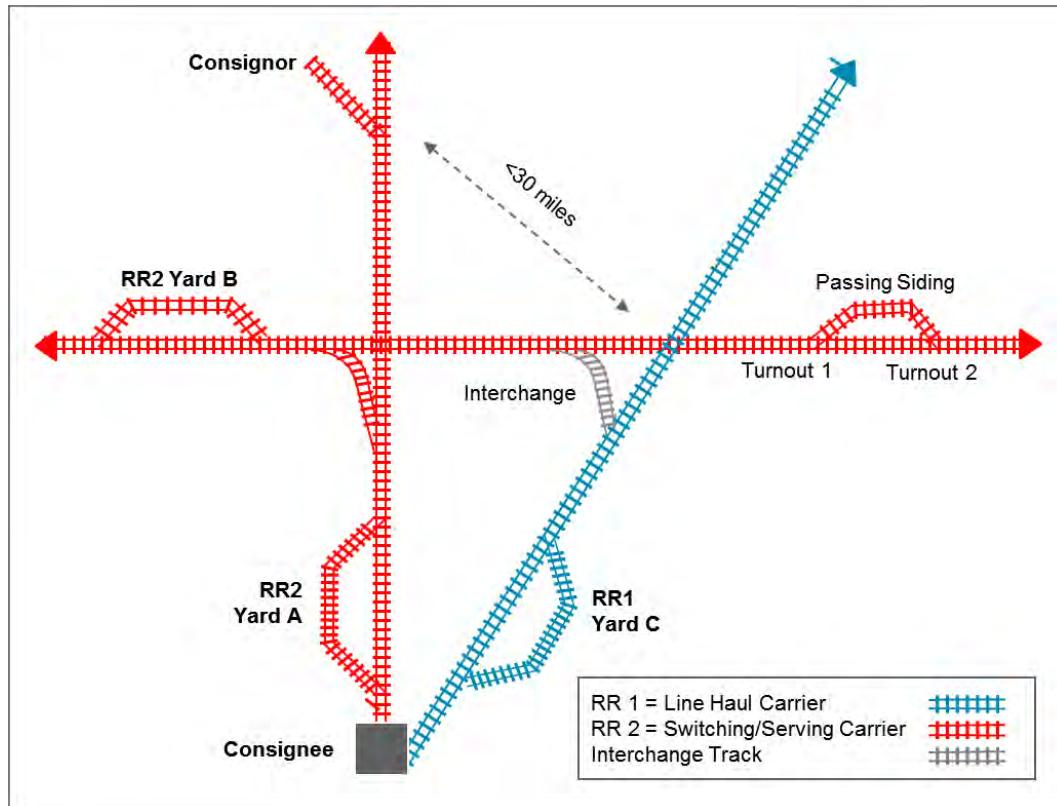
In smaller communities and rural areas, there is often insufficient volume to warrant running trains directly between yards to handle interchange traffic. In these situations, cars are taken to and from interchange by way trains.

In this case, RR1 is the line haul carrier and provides the empty car. RR1 switches the empty car at its yard into a way train serving the interchange. The RR1 way train drops the empty car on the interchange track, and it is retrieved by a RR2 way train. The RR2 way train serving the interchange takes the empty car to RR2's local yard. There, the empty car is switched into a RR2 way train that serves the Consignor. That way train moves the empty car to the Consignor and spots it on the Consignor's track for loading. Once the car is loaded, another RR2 way train picks up the loaded car and moves it to RR2's local yard. At that yard, the loaded car is switched onto a way train serving the interchange. That way train moves the loaded car to the interchange and spots it on the interchange track. At a later time, a RR1 way train picks up the loaded car and moves it to RR's yard, where it is switched onto an outbound road train.

As with urban interchange operations, it is highly unlikely that RR1 and RR2 will coordinate the schedules of their way trains serving the interchange. Therefore, the shipment will be delayed for at least a day in each direction. If the way trains on one or both railroads do not operate daily, the delay would be longer.

Example 6 – Complex Interchange Outside of an Urban Area: Finally, let us consider a more complex interchange in a rural area, small city, or town, which is illustrated in Exhibit V-7. This example involves four interchange train moves (two on each railroad), 12 way train moves (two on RR1, 10 on RR2), two industry switch events (on RR2), and six yard switch events (two on RR1, four on RR2).

Exhibit V-7: Complex Interchange Outside of an Urban Area



| Step | Description | Responsible Railroad |
|------|---|----------------------|
| 1 | Yard switch to move empty car to way train at Yard C | RR 1 |
| 2 | Way train moves empty car to interchange track | RR 1 |
| 3 | Interchange switch to spot empty car on interchange track | RR 1 |
| 4 | Interchange switch to retrieve empty car from interchange track | RR 2 |
| 5 | Way train moves empty car to Yard B | RR 2 |
| 6 | Yard switch to move empty car to way train serving Yard A | RR 2 |
| 7 | Way train moves empty car via Connection to Yard A | RR 2 |
| 8 | Yard switch to move empty car to way train serving Consignor | RR 2 |
| 9 | Way train moves empty car to Consignor | RR 2 |
| 10 | Industry switch to place empty car into Consignor's siding | RR 2 |
| 11 | Industry switch to retrieve loaded car from Consignor's siding | RR 2 |
| 12 | Way train moves loaded car to Yard A | RR 2 |
| 13 | Yard switch to move loaded car to way train serving Yard B | RR 2 |
| 14 | Way train moves loaded car to Yard B | RR 2 |
| 15 | Yard switch to move loaded car to way train serving interchange | RR 2 |

| Step | Description | Responsible Railroad |
|------|--|----------------------|
| 16 | Way train moves loaded car to passing siding | RR 2 |
| 17 | Way train locomotive runs around train and couples to the end of the train | RR 2 |
| 18 | Way train moves to clearance point beyond Interchange | RR 2 |
| 19 | Interchange switch to spot loaded car on interchange track | RR 2 |
| 20 | Way train backs to passing siding | RR 2 |
| 21 | Way train locomotive runs around way train, couples to front and proceeds East | RR 2 |
| 22 | Interchange switch to retrieve loaded car from interchange track | RR 1 |
| 23 | Way train moves loaded car to Yard C | RR 1 |
| 24 | Yard switch to move loaded car into outbound road train | RR 1 |

In this example, the Consignor is located outside of an urban area and within 30 miles of an open interchange. However, the Consignor's facility is not located on the same line as the interchange and the interchange track is not located in the quadrant that would allow the most efficient movement. This example illustrates the inefficiencies that are likely to arise if the NITL proposal is accepted, because traffic will move over routes that have not been used in the past and facilities that are likely to be non-existent or located in the wrong place. Railroads, such as RR 2 in this example, that have long haul single-line movements converted to short switching movements will have little incentive to make the investments necessary to address these inefficiencies. These same problems arise in urban areas.

In this example, RR1 is the line haul carrier and supplies the empty car. The empty car is located in Yard C. RR1 switches the empty car into a way train at Yard C. The way train proceeds to the interchange, where it spots the empty car on the interchange track. A way train operated by RR2 retrieves the empty car from the interchange and moves it to Yard B. At Yard B, RR2 switches the empty car into a way train serving Yard A. The way train moves the empty car from Yard B to Yard A via the connecting track. At Yard A, the empty car is switched into a

way train serving the Consignor. The way train moves the empty car to the Consignor and spots the car on the Consignor's track for loading.

Once the car is loaded, a way train operated by RR2 retrieves the loaded car and moves it to Yard A. At Yard A, the loaded car is switched into a way train serving Yard B. The way train moves the loaded car from Yard A to Yard B via the connecting track. At Yard B, the loaded car is switched into a way train serving the interchange. The way train moves the loaded car from Yard B to the interchange. However, to place the loaded car into the interchange track the way train must first execute the following maneuver:

- The train pulls into the passing siding through turnout 1
- The locomotive uncouples from the train, pulls forward onto the main line using turnout 2 and backs up until it is clear of turnout 1
- The locomotive pulls forward into the passing siding using turnout 1 and couples to the rear of the train
- The locomotive pulls the train back out of the passing siding onto the main line using turnout 1 and pulls the train west until it is clear of the interchange track
- The locomotive pushes the train into the interchange track and spots the loaded car on the interchange track
- The locomotive pulls the train back onto the main track and pushes it east on the main line and through turnout 1 onto the passing siding
- The locomotive uncouples from the train, backs up through turnout 1 onto the main line, pulls forward on the main line until it is clear of turnout 2, backs into the passing siding, couples to the train, pulls the train out of the passing siding onto the main line and proceeds east on the main line.

A way train operated by RR1 retrieves the loaded car from the interchange track and moves it to Yard C. At Yard C, the loaded car is switched into an outbound road train.

As in the example illustrated in Exhibit V-6, it is highly unlikely that RR1 and RR2 will coordinate the schedules of their way trains serving the interchange. Therefore, the shipment will be delayed for at least a day in each direction. If the way trains on one or both railroads do not operate daily, the delay would be longer. Moreover, the shipment is likely to be delayed for at least a day at each yard. Finally, it is possible that RR2 will not currently operate a train between Yard A and Yard B. In this example, it will be forced to establish a train to serve the interchange traffic. If the volume of interchange traffic is low, it is likely that the train connecting Yard A and Yard B will run infrequently, further degrading service in both the empty and loaded directions.

A summary of the escalating number of moves required when one goes from single-line service to simple interchange, and then complex interchange, is shown in Exhibit V-8.

Exhibit V-8: Summary of Moves Required in Examples 1-6

| | Way train moves | Industry switch events | Yard switch events | Interchange train moves | Total |
|---|-----------------|------------------------|--------------------|-------------------------|-------|
| Example 1: Simple Single-Line Service | 2 | 2 | 2 | 0 | 6 |
| Example 2: Complex Single-Line Service | 4 | 2 | 4 | 0 | 10 |
| Example 3: Simple Urban Interchange | 2 | 2 | 4 | 2 | 10 |
| Example 4: Complex Urban Interchange | 4 | 2 | 6 | 2 | 14 |
| Example 5: Simple Non-Urban Interchange | 6 | 2 | 4 | 4 | 16 |
| Example 6: Complex Non-Urban Interchange | 12 | 2 | 6 | 4 | 24 |

It is critically important to understand that in every example involving interchange traffic, neither railroad is in a position to plan, manage, and perform the entire movement between origin and destination. This introduces complexity into both interline and reciprocal switching operations. Even with well designed, densely used interchanges, the communication and

coordination between carriers will be less than what can be achieved when a single railroad plans and executes the entire movement. The STB (and ICC) have acknowledged the adverse effects when one party does not control all aspects of a movement.⁴¹

Given the complexity of a typical interchange operation compared to a single-line operation – and the benefits of one railroad being able to plan, manage, and execute the entire movement of a shipment from origin to destination – railroads have sought to reduce interline traffic in favor of single-line traffic. As shown in Exhibit III-3 above, the portion of total railroad traffic in the United States that is interchanged has been steadily declining for at least the past 40 years, as railroads have worked to simplify their networks and operations to increase efficiency and service reliability. Interchanges have been reduced primarily through:

- Mergers between railroads, each of which eliminates interchanges between the railroads involved in the merger
- Rationalization of the Class I railroad network, which by removing lightly used lines and duplicate main lines eliminated many interchanges
- Internal efforts by railroads to close interchanges that were either unused or very lightly used and to consolidate interchange operations at a smaller number of high density interchanges.

⁴¹ CSX Corp. – Control – Chessie Sys. Inc., 363 ICC 521 at 553 (Sept. 23, 1980), ⁴¹ Rio Grande Industries, Inc. – Control – S. Pac. Trans. Co., 4 ICC 2d 834, 895 (ICC Served Aug. 25, 1988).

VI. Potential Consequences of the NITL Proposal

While the terms of the new regulation proposed by the NITL are not carefully defined in its petition, the regulation's fundamental effect would be to allow shippers located within 30 miles of an interchange point to force railroads now providing them with single-line, line haul service to instead interchange the traffic to a competing line haul railroad.

No matter how the specific terms ultimately are defined, it is inescapable that the NITL proposal would increase car handlings and add to network complexity, undermining the foundations that have supported improvements in rail network efficiency and service reliability over the past 30 years. This loss of network efficiency and reliability would, in turn, generate a host of negative knock-on effects (Exhibit VI-1).

Exhibit VI-1: Potential Impacts of the NITL proposal

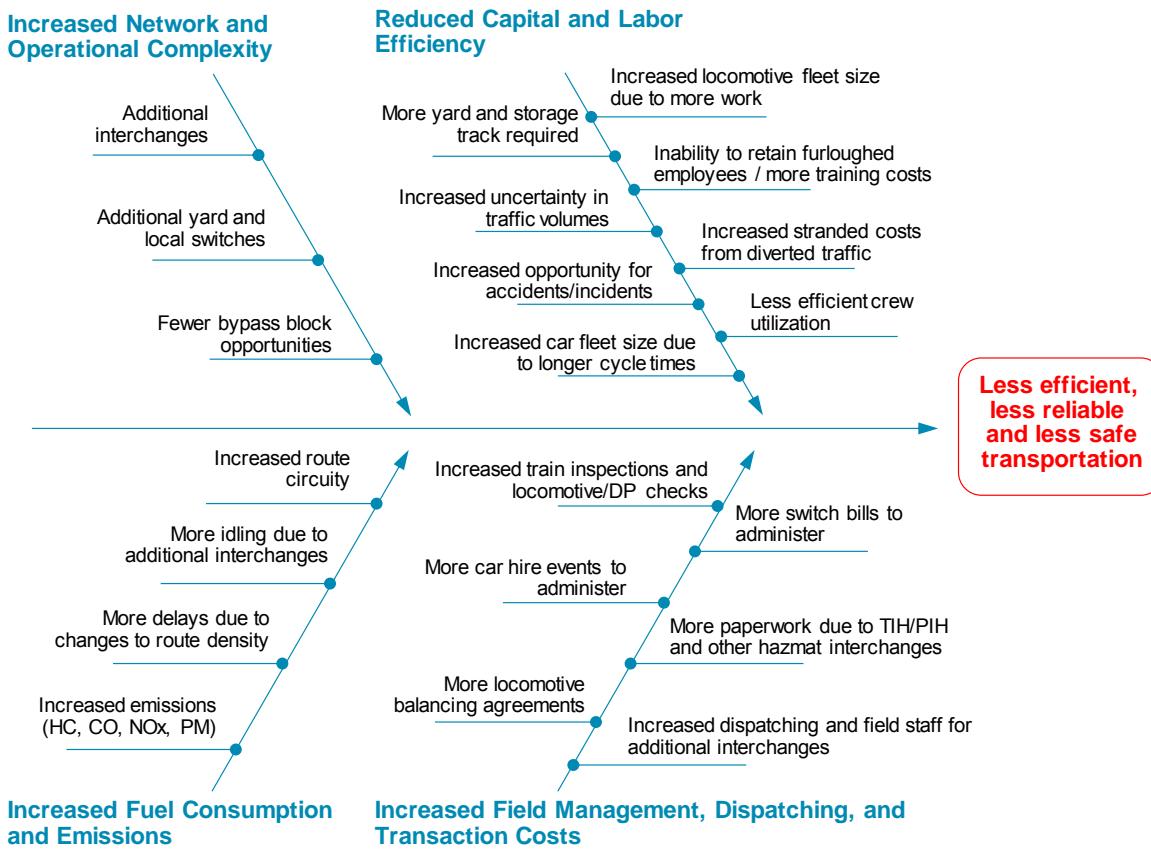


Exhibit VI-1 is in essence a mirror image of Exhibit III-1 above, demonstrating the reversal of those factors that have allowed the railroads to achieve efficiency gains over the past three decades. For example, where the railroads have eliminated interchanges, reduced switching, and created more bypass block opportunities, the NITL proposal would add interchanges and switching and reduce bypass blocks. Where the railroads have achieved better fleet utilization, the NITL proposal would require larger fleets. Where the railroads have rationalized their lines and yards, the NITL proposal would require additional investment simply to carry the same amount of traffic, while making inefficient use of infrastructure investments the railroads already have made.

In this section of my report, I will examine changes to railroad operations that would arise should the NITL proposal be adopted and how those changes would affect the complex operations of the current rail network and the efficiency gains of the past few decades. I will present examples to illustrate the kind of problems that could arise under the NITL proposal, without taking any position with respect to particular examples as to how or whether the NITL proposal would apply under the circumstances described, and my examples should not be construed as acknowledging the applicability of the NITL proposal to the circumstances described.

A. The NITL Proposal Would Degrade Yard Efficiency

Except for unit trains, which generally move directly from origin to destination without intermediate switching, railroad traffic moves through a network of interconnected hubs and spokes. A large “classification yard” is located at each hub. Each classification yard is connected by main lines to other classification yards and to a group of smaller satellite “serving yards.” An example of a railroad’s hub and spoke network is shown in Exhibit VI-2.

Exhibit VI-2: Norfolk Southern Classification Yard Network⁴²

Classification yards process trains to and from serving yards and other classification yards, breaking apart inbound trains and reconsolidating them for outbound movement. Trains arrive at the receiving yard and are sorted in the class tracks. Outbound main line trains are assembled from the class tracks onto the departure or forwarding tracks. Some classification yards utilize a “hump” over which rail cars are pushed and fed into sorting tracks. Others sort cars by having a locomotive move them through flat switching.

Many other functions also are handled at classification yards, including fueling, locomotive and car repair, and inspections. A serving yard is usually incorporated in a classification yard, and an intermodal or automotive terminal is often co-located with the classification yard. A typical classification yard is shown in Exhibit VI-3.

⁴² Norfolk Southern.

Exhibit VI-3: Example Classification Yard⁴³

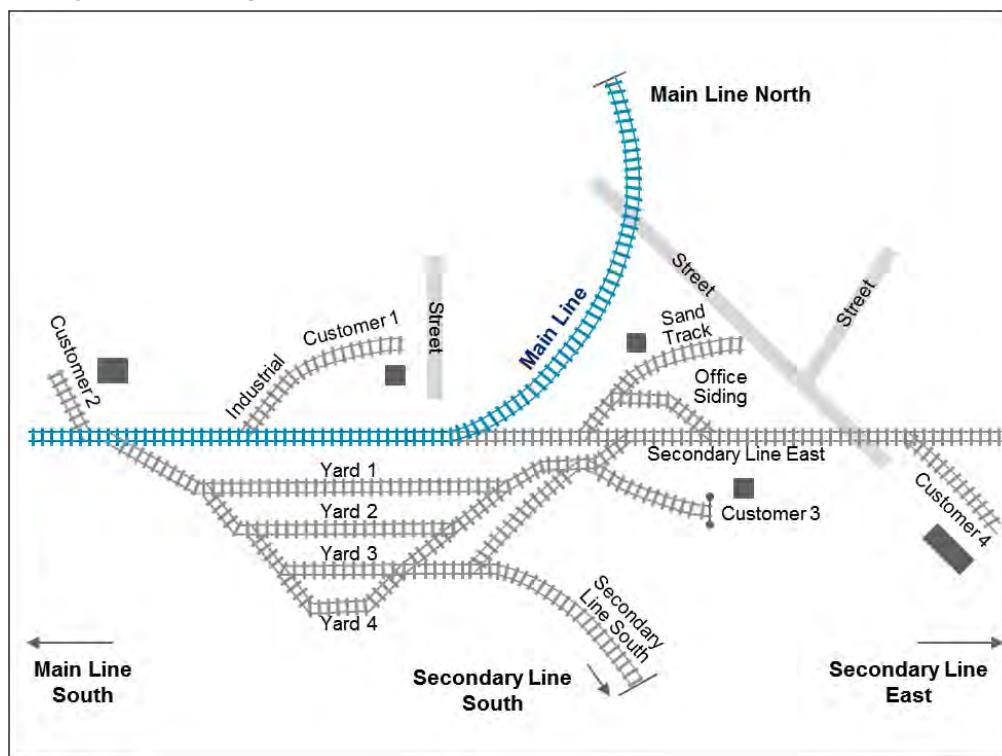


In total, there are approximately 100 major classification yards in North America. The largest classification yard, Union Pacific's Bailey Yard in North Platte, Nebraska, handles about 15,000 cars every day, of which between 2,000 and 2,500 are pushed over the yard's two humps and reclassified. Typical classification yards classify between 1,000 and 2,500 cars per day. The yard shown in Exhibit VI-3 is more than 4 miles long, covers 275 acres, and contains 65 miles of track. It has a hump and 46 classification tracks (bowl) allowing for cars to be sorted to many destinations. A locomotive shop, fueling facilities, and car repair facilities are adjacent to the yard.

Serving yards function primarily to deliver cars to and from industry. They are used to assemble way trains. There are hundreds of such yards. They are usually modest facilities with a dozen tracks or less that utilize flat switching. Most locations where local freight crews go on or off duty on a regular basis have a yard. A diagram of a typical serving yard is shown in Exhibit VI-4.

⁴³ Ibid.

Exhibit VI-4: Typical Serving Yard



The usual pattern of operations for a serving yard is to handle carloads from one or two trains inbound from one or more classification yards, sort those cars for delivery, and dispatch way trains and yard jobs to serve industry. The local trains return with cars picked up at industry; these are then assembled for pickup by the one or two trains returning to the classification yard(s). Generally, outbound cars are not sorted at the serving yard, as the classification yard is much more efficient at that task.

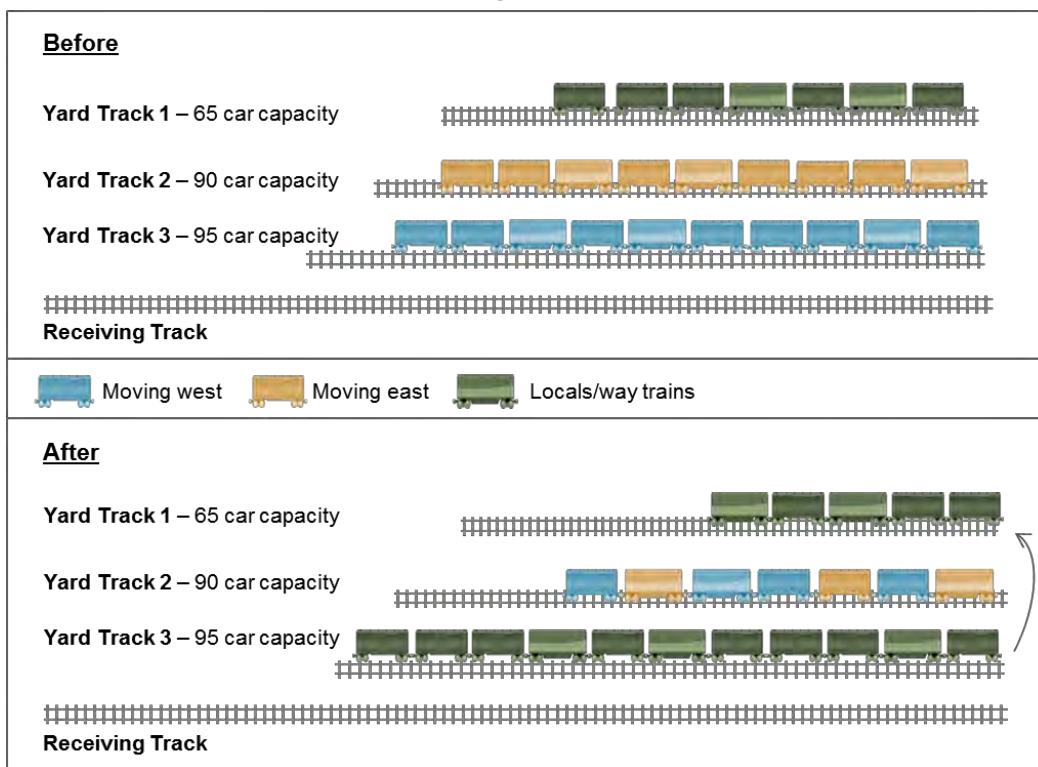
Serving yards are also used to carry out support tasks, such as weighing cars on request, inspection and minor running repairs on cars, and temporary holding and storage of cars. The serving yards are generally constrained by surrounding development, with limited expansion potential. Often, current serving yards were originally designed for industry patterns that no longer exist.

The example of a serving yard shown in Exhibit VI-4 is a simplified version of an actual yard that makes up two or three way trains per working day to serve customers located on the Main Line North, the Secondary Line East and the Secondary Line South. One additional yard job helps make up way trains and serves the four customers located close to the yard. The way trains are typically 20 to 50 cars long, consisting of both loaded and empty cars. The longest yard track (Yard 1) is about 4,000 feet in length and is used by the one main line train per day to deliver and receive cars to and from local trains. Yard tracks 2 through 4 are about 3,000 ft. long, and are used for sorting the cars that make up the way trains. The entire yard has a footprint of less than 5,000 feet long and 200 feet wide.

The following examples illustrate some of the ways in which the NITL proposal would disrupt the operation of yards throughout the railroad network.

Example 1: If the NITL proposal were adopted, the increase in the number of cars interchanged might cause congestion and, as a result, inefficient operations in serving yards. Consider the situation shown in Exhibit VI-5, of a typical service yard, “before” and “after” implementation of the NITL proposal.

Exhibit VI-5: Example Service Yard Track Originated Traffic Impact



In our example, way trains currently bring an average of 200 cars per day into the yard. The tracks within the yard are used as follows:

- An average of 85 cars per day that are destined to a classification yard located west of the service yard are sorted onto track 3, which has a 95 car capacity.
- An average of 75 cars per day that are destined to a classification yard located east of the service yard are sorted onto track 2, which has a 90 car capacity.
- An average of 40 cars to be delivered by way trains operating out of the service yard and empties to be reused locally are sorted onto track 1, which has a 65 car capacity.

The yard, while being utilized near its capacity, is fluid and operates well. Now consider what would happen if the NITL proposal were adopted. Way trains continue to bring 200 cars per day

into the serving yard, but 50 westbound cars and 40 eastbound cars are diverted from single-line to interchange service.⁴⁴ The tracks within the yard are now used as follows:

- An average of 130 cars (including the 90 diverted from single-line service that now will become switching traffic delivered by local trains to interchange locations) to be delivered by way trains operating out of the service yard and empties to be reused locally now will not fit on any track in the yard. They will consume all of track 3 and overflow onto track 1.
- The yard will continue to receive an average of 35 cars per day destined for a classification yard west of the service yard and 35 cars per day destined for a classification yard east of the service yard. However, the yard no longer has two tracks capable of building these blocks. Therefore, the railroad now will intermingle the cars on track 2.
- As a result of congestion in the service yard caused by the increase in switching traffic, eastbound and westbound cars will now be combined and sent either to the classification yard to the east or the classification yard to the west. The result will be an additional switch move at the service yard, an inefficient route for half of the eastbound and westbound cars, and an additional switching requirement at the classification yard receiving the intermingled cars. As multiple serving yards are forced to route traffic to classification yards for additional sorting, the classification yards themselves may become congested.

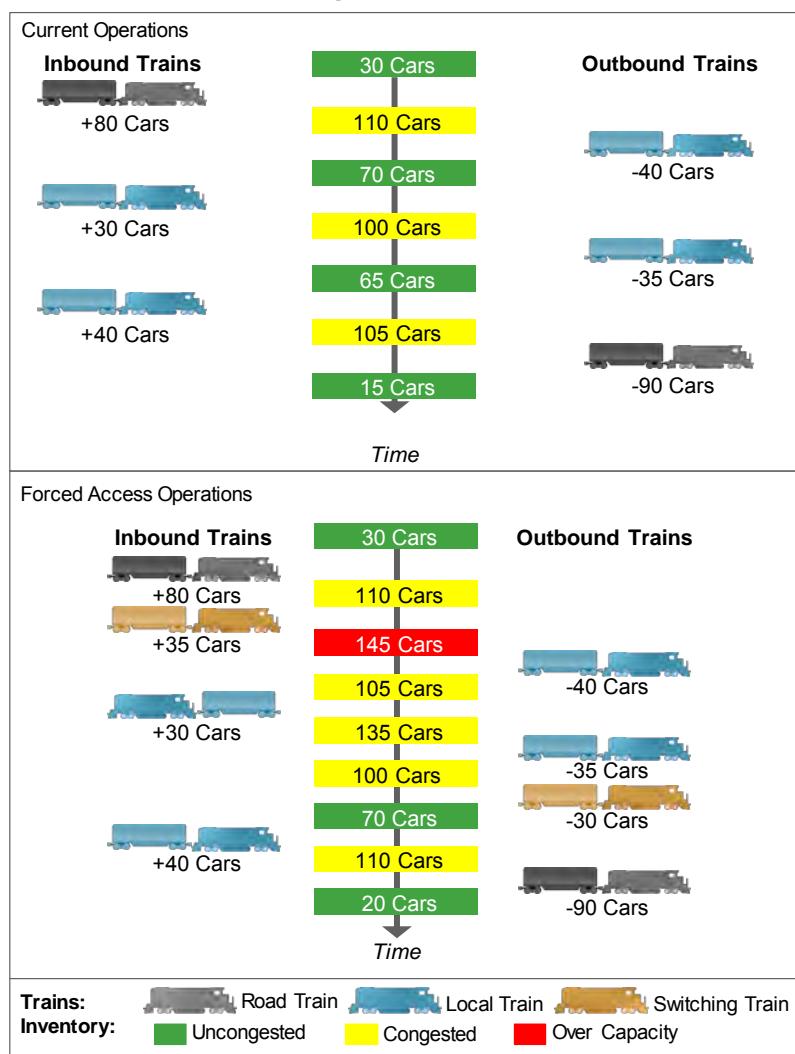
Example 2: In addition to capacity problems caused at service yards by changes in originated traffic, if the NITL proposal is adopted, railroads also might face problems caused by a growth in inbound switching traffic. For interline traffic, railroads included in the route receive periodic

⁴⁴ In this Verified Statement, I have assumed, for purposes of illustration that across the entire railroad industry 25 percent of cars that might be subject to the proposed NITL rule would actually move under forced access. However, the effect of the rule will vary significantly from yard to yard depending on the decision of shippers at each yard. In some yards, the effect is likely to exceed 25 percent significantly. For purposes of illustration, I have assumed that 45 percent of cars using the yard in this example that are subject to the proposed NITL rule actually move under forced access.

electronic car location messages and EDI 417 Rail Carrier Waybill Interchange messages tracking the location of cars that will be arriving on their properties. For switching traffic, however, railroads receive only an EDI 418 Rail Advance Interchange Consist notice, which typically arrives an hour or so in advance of the arrival of reciprocal switching traffic in their yards. This “pop-up” switching traffic can lead to yard congestion, which in turn leads to mainline congestion when inbound trains must hold outside of the yard waiting for tracks to become available.

Consider the situation in Exhibit VI-6, which describes a typical service yard that is not currently located in an area where reciprocal switching occurs, and which has a 140-car capacity and a 30-car inventory at the start of the day. Currently, road and local trains arrive and depart throughout the day, and these trains are staged to manage the workflow and the car inventory against the capacity of the yard. As a result, while the inventory of cars in the yard approaches 80 percent at one point during the day, the yard never reaches a congested condition and operations run smoothly.

Exhibit VI-6: Example of Inbound Switching Traffic Impact



Should the NITL proposal be adopted, however, the service yard would begin to receive and dispatch switching trains carrying forced access traffic. As is common practice with reciprocal switch traffic today, the inbound trains would arrive with relatively little advance notice at random times during the day. As illustrated in Exhibit VI-6, an influx of “pop-up” switching traffic can cause a service yard to approach or exceed its capacity. The example shows that at one point in time, the yard is required to accommodate 145 cars, even though it can only accommodate a maximum of 140 cars. This dramatically slows the switching required to assemble outbound trains, because it limits space to sort cars and delays the arrival of inbound

trains, which must hold on passing sidings outside of the yard, spreading the congestion to the main line.

Example 3: The NITL proposal would adversely affect yard operations in many of the nation's largest urban areas (see Exhibit VII-3), where even simple interchange events can be difficult due to the complexity and congestion of the track network. If the NITL proposal is adopted, growth in interchange traffic might increase congestion in large urban areas, including major east-west gateways such as St. Louis.

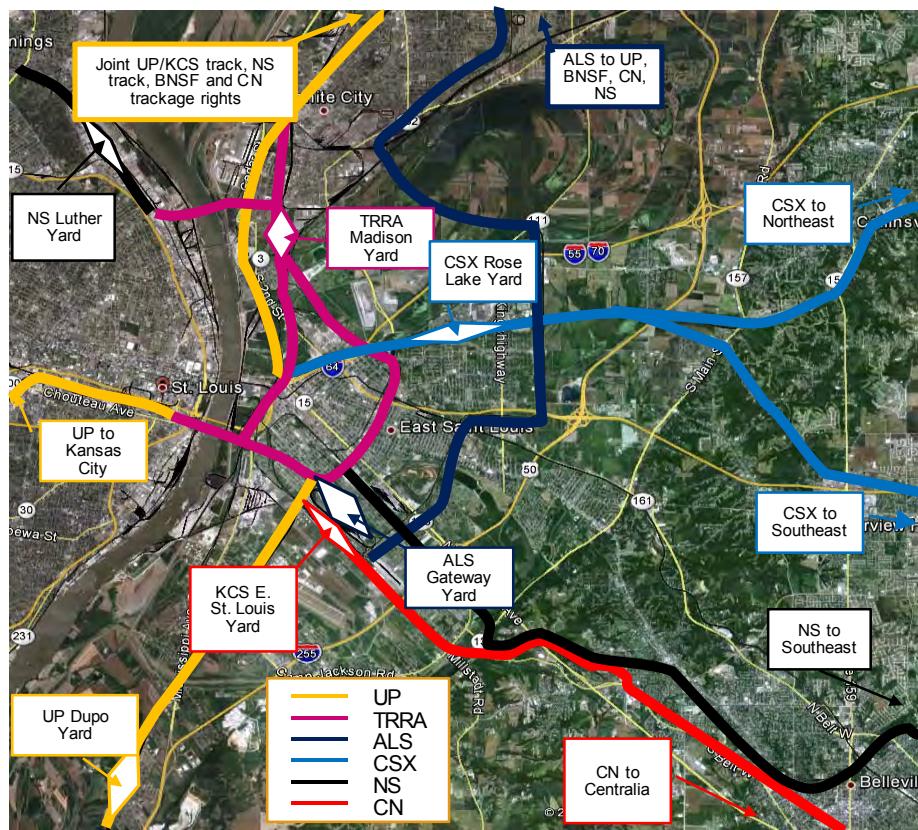
Consider all of the steps and potential delays involved in undertaking a simple urban interchange procedure, similar to that illustrated in Exhibit VI-7, if it occurs in the St. Louis metropolitan area. In most cases, even the simplest car interchange will involve operating over several railroads. These include six of the seven Class I railroads and two major switching railroads, the Alton & Southern (A&S) and the Terminal Railroad Association of St. Louis (TRRA). Both the A&S and TRRA are heavily utilized. The A&S Gateway Yard originates and terminates 48 trains per day and classifies 3,500 cars per day.⁴⁵ The TRRA Madison Yard consists of 80 tracks with a capacity of 2,200 cars and classifies 30,000 cars per month.⁴⁶

In most cases, when a loaded or empty car moves from one railroad onto another railroad within the St. Louis area, it will be classified into a train bound for the next railroad on its route. In each case, this will delay the car for an average of one day. Under the forced access advocated by the NITL, the full cycle to move an empty car from the line haul carrier via one or more intermediate carriers to the switching carrier and back could consume six to eight days. During each of these days, the car will be consuming yard and line capacity.

⁴⁵ Alton & Southern website, <http://www.altonsouthern.com/about/history/index.shtml>.

⁴⁶ TRRA website, <http://www.terminalrailroad.com/About/TRRAHistory.aspx>.

Exhibit VI-7: St. Louis Area Railroad Network⁴⁷



Example 4: Interchange operations often are more complex than they would appear on a map.

For example, CSX's Tilford Yard, the principal CSX serving yard in Atlanta, is physically adjacent to NS's Inman Yard, as shown in Exhibit VI-8. It would appear that a reciprocal switch move from CSX to NS would involve simply moving cars to be interchanged a short distance from Tilford Yard to Inman Yard or vice versa.

However, the reality is more complex. Inman Yard is an intermodal facility and does not handle general merchandise freight service. Since Inman cannot handle the interchanged traffic NS receives from Tilford Yard, []],⁴⁸ where NS has an efficient classification yard. [[

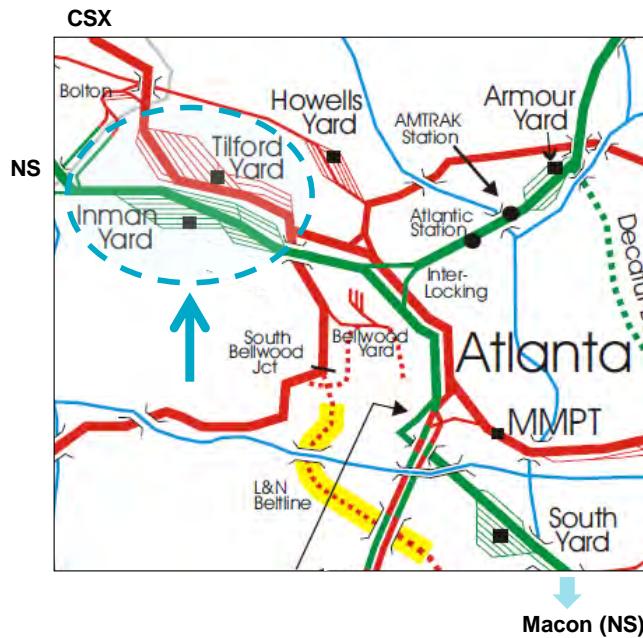
⁴⁷ Map source: Google Earth, with additional Oliver Wyman annotation.

⁴⁸ Confidential materials are designated with double brackets: [[]].

]]

So, due to the realities of railroad operations, two geographically adjacent points are, in fact, separated [[]].

Exhibit VI-8: Downtown Atlanta CSX and NS Yards⁴⁹

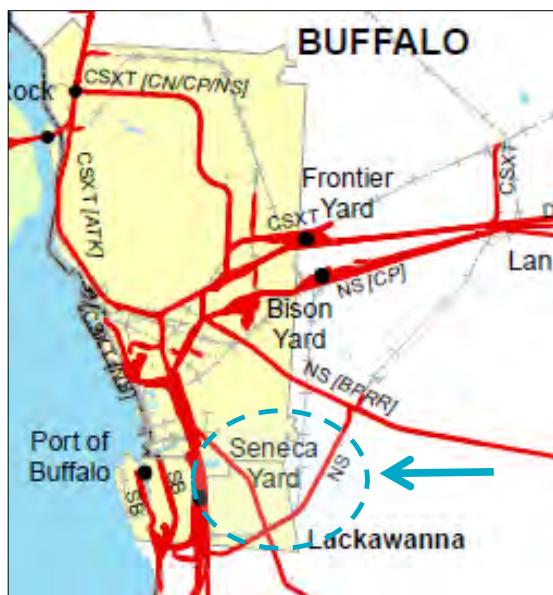


Example 5: Railroad infrastructure and operations in urban areas are sized to fit the traffic that historically has been available. A situation created by the Conrail transaction is illustrative of what could result from the NITL proposal. Following the transfer of Conrail lines to Norfolk Southern and CSX, both railroads acquired operations in Buffalo, NY (Exhibit VI-9). CSX, which had the larger operation at Buffalo, gathered cars to be interchanged with NS on an interchange track at its Seneca Yard. However, the volume of traffic was insufficient to support an NS train in Buffalo to pick up the cars, and so NS picked up and delivered interchange traffic at Seneca Yard using a road train that originated at Pittsburgh, PA. Due to low volume, the train

⁴⁹ Georgia Department of Transportation.

from Pittsburgh was often late or annulled, with the result that cars to be interchanged to NS built up in Seneca Yard to the point that the yard became congested, harming CSX's service to shippers both in Buffalo and elsewhere on its lines in and out of Buffalo. Ultimately, NS established a train to move the interchange traffic. However, the difference is that NS had some control over volume and could choose to pursue the business and plan accordingly. Variability under the NITL proposal may never make it worthwhile for the railroad to establish a train, and as a result congestion affecting other customers would continue indefinitely.

Exhibit VI-9: CSX and NS Operations in Buffalo, NY⁵⁰



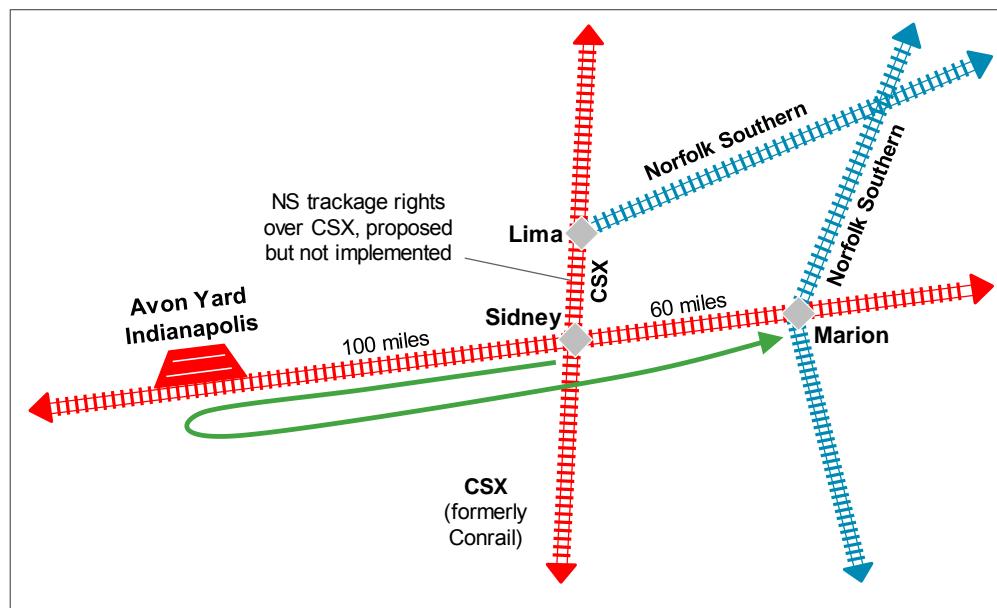
Example 6: In some cases, traffic will move significantly out of route to reach an efficient interchange location. For example, as shown in Exhibit VI-10, a Cargill facility located at Sidney, OH was served by Conrail and CSX. After the transfer of Conrail lines to CSX and NS, CSX was the sole railroad serving Cargill's facility. To replace Conrail, NS was granted trackage rights over CSX from Lima, OH to Sidney. However, according to documents filed by Cargill,⁵¹

⁵⁰ New York State Department of Transportation.

⁵¹ Status Report and Comments of Cargill, Incorporated, STB Finance Docket 33388 (Sub-No. 91), September 25, 2003.

CSX and NS found that interchange at Lima was not practical and moved it to Marion, OH. CSX also found that the most efficient routing for Cargill traffic was to move it 100 miles west from Sidney to Avon Yard at Indianapolis, where it is classified with other traffic bound for points on NS into a block destined for Marion. From there, the traffic is routed 160 miles east to the interchange with NS at Marion.

Exhibit VI-10: NS and CSX at Cargill (Sidney, OH)



According to Cargill documents, this movement increased CSX's costs by more than \$600 per car.⁵² CSX sought to pass this cost through to NS, which in turn raised the rate to the shipper.⁵³ The net result of creating an interchange in this situation was to increase the cost and degrade the service available to the customer. While this particular situation would not be affected by the NITL proposal, it is illustrative of the cost and difficulty of establishing the interchange of traffic in situations in which there is little or no prior interchange experience.

⁵² Ibid.

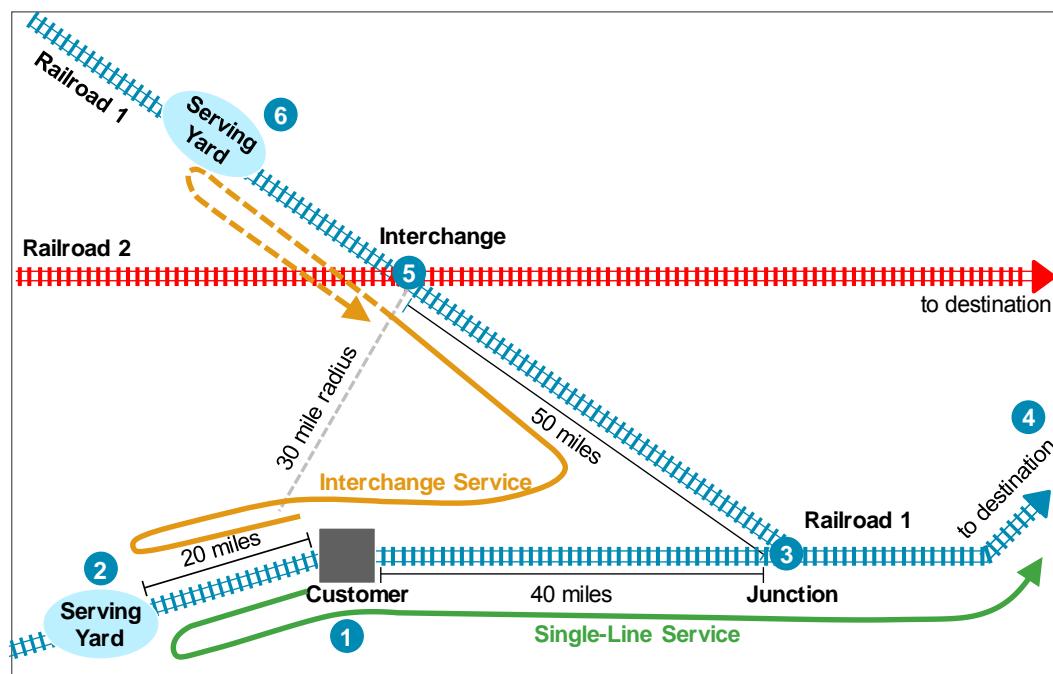
⁵³ Ibid., p. 2.

B. The NITL Proposal Would Degrade Main Line Efficiency

In addition to degrading the performance of yards, the NITL proposal would, in many instances, impose new interline movements on a network in which lines, yards, and interchange locations are not configured to serve them. This would result in cars moving significantly out of route and interfere with efficient main line operating practices.

Example 1: As has been demonstrated previously, although the NITL proposal would limit the applicability of forced access to shippers located within 30 miles of an interchange location, the reality is that providing the service often will entail many additional operations and delays, each of which degrades service reliability. Exhibit VI-11 provides an illustration of an interchange location which is 30 miles in a straight line from an origin shipper. In this case, however, the actual distance via rail is a minimum of 90 miles, and it is likely that the interchanged car will travel at least 130 miles.

Exhibit VI-11: Illustrative Thirty-Mile Straight Line Interchange Impact



Presently, a customer located at Point 1 receives single-line service from Railroad 1. A way train operated by Railroad 1 picks up a car loaded by the customer at Point 1 and moves it to the serving yard at Point 2. At the serving yard, the car is switched into a road train operated by Railroad 1 and moved east via Point 1 and Point 3 toward the car's destination (Point 4). The single-line service route is shown in green.

If the NITL proposal is adopted, the customer would have the option of compelling Railroad 1 to interchange the car to Railroad 2 at an interchange located at Point 5. The interchange location is 30 miles "as the crow flies" from the customer. However, to actually move the car from the customer to the interchange location would require trains operating much more than 30 miles:

- Railroad 1 would pick up the car from the customer at Point 1 and move it to the serving yard at Point 2.
- At the serving yard, Railroad 1 would switch the car into a way train. The way train would run from the serving yard at Point 2 east to the junction at Point 3 and then north to the interchange location at Point 5. At the interchange location, the way train would spot the car on an interchange track.
- At the interchange location, a way train operated by Railroad 2 would retrieve the car from the interchange track.

While the interchange location is 30 miles from the customer in a straight line, the customer's car would need to travel 130 miles to reach the interchange location:

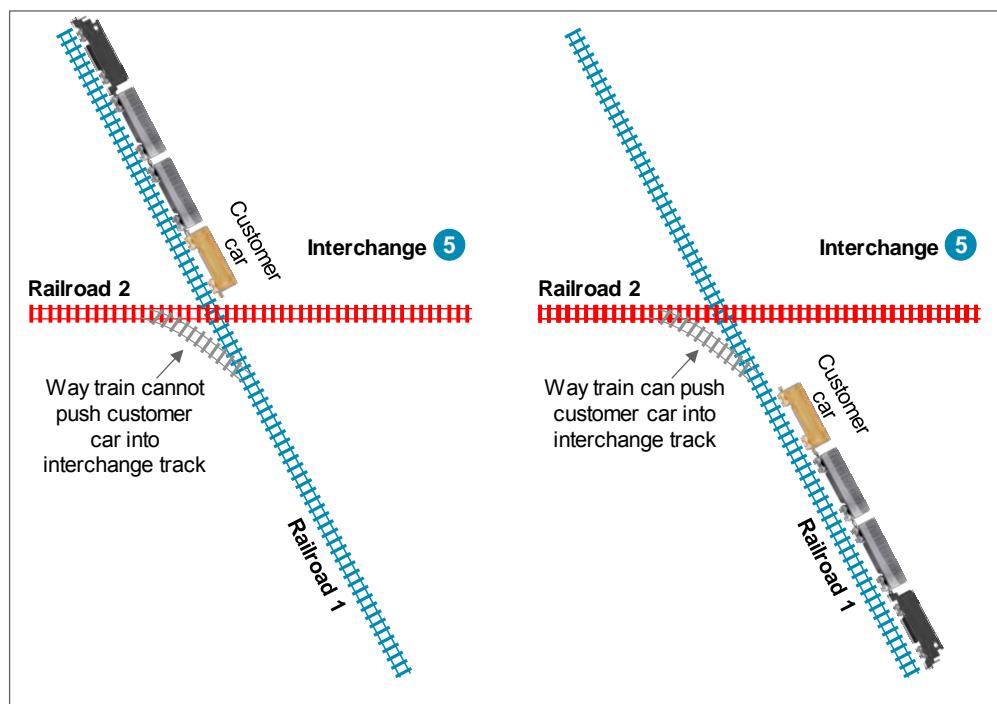
| | |
|----------------------------------|------------------|
| Origin to serving yard | 20 miles |
| Serving yard to junction | 60 miles |
| Junction to interchange location | 50 miles |
| Total | 130 miles |

At a minimum, the loaded car will move 50 miles out of route⁵⁴ (the distance between the junction and the interchange location). But this would be the best case, because:

- It assumes that there is sufficient traffic to operate a way train from the serving yard at Point 2 directly to the interchange location at Point 5. If there is insufficient traffic, then Railroad 1 would need to move the customer's car from the serving yard at Point 2 to another serving yard or classification yard that does operate a way train to the interchange location, adding further mileage to the route.
- It assumes that the interchange track is located to the north of Railroad 2's main line, so that the way train arriving from the junction at Point 3 can spot cars into the interchange track (see Exhibit VI-12). If the interchange tracks are located south of Railroad 2's main line, then Railroad 1 would take the customer's car to the serving yard at Point 6, where it would switch the car into a southbound way freight. Again, this would add mileage to the route. (The interchange route is shown in orange in Exhibit VI-11, with the optional movement from the interchange location to the serving yard at Point 6 shown as a dotted line.)

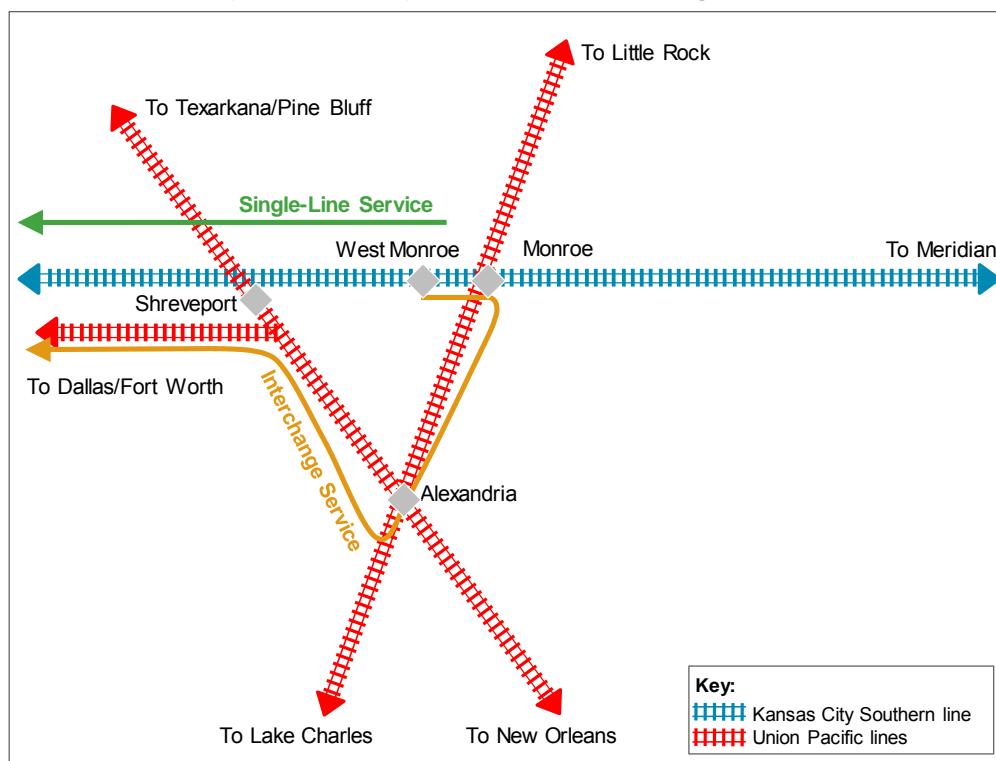
⁵⁴ In addition, of course, this mileage will be at least doubled, because Railroad 2 must supply an empty car to Railroad 1 at Point 2 for the process to begin.

Exhibit VI-12: Illustration of Interchange Track in the Wrong Quadrant



To understand how the hypothetical situation discussed above might actually arise, let us look at the situation for a shipper in West Monroe, LA. Currently, the shipper is served by KCS and the traffic moves in single-line service over the KCS “Meridian Speedway” main line to direct connections with UP and BNSF near Dallas (Exhibit VI-13). The single-line service KCS route is shown in green.

Exhibit VI-13: West Monroe, LA to Dallas, TX 30-Mile Interchange Impact Example



The only Class I interchange located within 30 miles of the customer is an interchange with the UP at Monroe. If the customer were to elect, under the NITL proposal, to force KCS to interchange its traffic to UP at Monroe for shipment to Dallas, the most direct route would involve:

- UP transporting the cars from Monroe to Alexandria
- UP then transporting the cars from Alexandria to Shreveport
- UP then transporting the cars to Dallas

The interchange route via the UP is shown in orange. The cars would move over a route 25 percent more circuitous than the single line KCS route, and they would be handled three additional times – at Monroe, Alexandria, and Fort Worth. Each additional handling would add cost and time to the movement, and would decrease the reliability of the service.

Example 2: One of the primary constraints on railroad capacity is the need to route trains moving in opposite directions over the same track. To accomplish this task, railroads build passing sidings at intervals along their routes. When trains moving in opposite directions meet, dispatchers route one train into the siding while the other train passes on the main line. While sophisticated software linked with controls on locomotives increasingly is able to schedule meets so that stop time is minimized, meets often cause delays on the network.

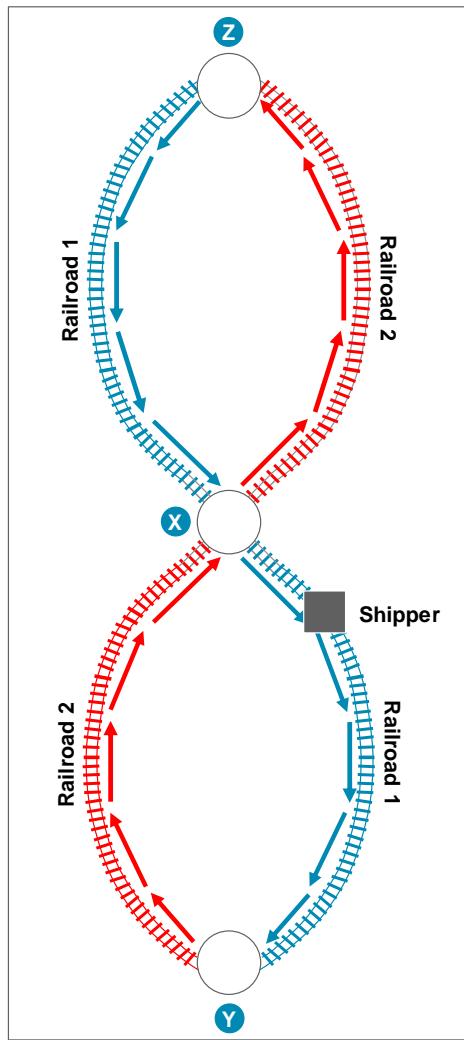
To improve their efficiency, railroads operating parallel lines sometimes enter into voluntary directional running agreements in which both railroads route trains moving in one direction over one of the lines and trains moving in the opposite direction over the other. This mutually beneficial agreement improves the operation of both lines.

In the situation illustrated in Exhibit VI-14, Railroad 1 and Railroad 2 have entered into a joint use, directional running agreement between Points Y and Z. Both lines are heavily utilized. An interchange track exists at Point X, but is used only a few times per year when one line between Point X and Point Z or Point X and Point Y is blocked due, for example, to maintenance or a derailment.

In our example, a shipper that currently ships traffic via single-line service on Railroad 1 from its facility to Point Y, is located “downstream” from the interchange location at Point X. Under the NITL proposal, the shipper could force Railroad 1 to interchange traffic with Railroad 2 at Point X. Because of the density of traffic and directional running on the line, it would be inefficient to run a train “upstream” from the shipper’s facility to X. However, if Railroad 1 were forced to do so, it would deliver the shipment to Railroad 2 at Point X. Railroad 2 would then take the shipment with the flow of traffic to Point Z and then would switch to the opposite line and run with the flow of traffic to Point Y. Situations like this one, based on local operating

conditions, are likely to lead to numerous and ongoing problems that the STB is likely to be called upon to resolve.

Exhibit VI-14: Directional Running Example



C. The NITL Proposal Would Degrade Service Reliability

As shown in Exhibit III-9, shippers place the highest value on service reliability when ranking service attributes. Therefore, it is surprising that the NITL would advance a proposal that would virtually guarantee severe degradation of service reliability for all shippers, including the minority of shippers that it is alleged to benefit.

As described in Section V, the process of interchanging cars between railroads unavoidably involves numerous car handlings that exceed – in some instances by multiples – the car handlings required to provide single-line service. Each car handling involves expense and delay and, most important, degrades service reliability. Exhibit VI-15 shows the hypothetical degradation in the probability that a car will meet its trip plan for each of the examples discussed in Section V, even given a 98 percent⁵⁵ probability of each switch event going according to plan:

Exhibit VI-15: Hypothetical Impact on Railroad Service of Adding Car Handlings

| Example | Exhibit | Description | Total Number of Events ⁵⁶ | Number of Switching Events ⁵⁷ | Probability of Performing Each Switching Event According to Plan | Probability of Meeting Service Plan ⁵⁸ |
|---------|---------|-----------------------------|--------------------------------------|--|--|---|
| 1 | V-2 | Simple Single Line Service | 6 | 2 | 98% | 88.6% |
| 2 | V-3 | Complex Single Line Service | 10 | 4 | 98% | 81.7% |
| 3 | V-4 | Simple Interchange – Urban | 10 | 6 | 98% | 81.7% |
| 4 | V-5 | Complex Interchange – Urban | 14 | 8 | 98% | 75.4% |
| 5 | V-6 | Simple Interchange – Rural | 16 | 8 | 98% | 72.4% |
| 6 | V-7 | Complex Interchange - Rural | 24 | 10 | 98% | 61.6% |

We have already demonstrated, in Exhibit III-6, that adding interchange events is highly inversely correlated with railroad efficiency. Exhibit VI-15 illustrates two further important facts: First, the number of switching events normally increases when interchange service is substituted for single-line service. As typical yard dwell time is 23 to 25 hours, each switching event, which includes switching cars in yards and spotting and retrieving cars from interchange tracks, can add a day to total transit time. Thus, in simple situations (Examples 1, 3, and 5), moving from single-line to interchange service adds from 4 to 6 days to trip time. In complex

⁵⁵ A 98 percent probability of performing each individual switching event according to plan is above levels normally experienced by the Class I railroads.

⁵⁶ Includes industry switches, yard switches, interchange switches, and way trains.

⁵⁷ Includes yard switches and interchange switches.

⁵⁸ The probability of meeting a trip plan is equal to the probability of performing each individual switching event according to plan, raised to the power of the number of switching events.

situations (Examples 2, 4, and 6), interchange service also adds 4 to 6 days. When you consider that 2.2 million additional cars per year⁵⁹ would be interchanged if just 25 percent of the cars now moving in single-line service that are eligible for forced access under the NITL proposal are actually interchanged, the number of added car days might approach 10 million. These added car days consume yard capacity and harm the efficiency of both railroad- and shipper-owned railcars.

Second, as demonstrated in Exhibit III-9, shippers value reliability above all other service attributes. Reliability is generally measured as executing the trip plan within a margin of error (for example, the planned date plus or minus one day). Yet, as Exhibit VI-15 clearly demonstrates, the probability of successfully meeting a trip plan declines when interchange service is substituted for single-line service. Whereas 886 of every 1,000 cars moving in simple single-line service might be expected to meet their trip plan, just 616 of every 1,000 can be expected to do so in complex interchange situations in rural areas and small communities.

Besides the direct effect of decreased reliability for those shippers who choose forced access, cars for other customers who choose to continue to use single-line service would face a risk of reduced reliability from congestion associated with increased terminal dwell. Every car that misses its trip plan is at high risk of missing its planned delivery date, degrading reliability.

We have seen that substituting interchange service for single-line service increases the number of switching events. There is clear evidence that increased switching events are negatively correlated with network velocity,⁶⁰ and that network velocity is correlated with service

⁵⁹ See Section VII.

⁶⁰ Measured as car miles per car day, so that as the number of switching events increase, the number of car miles per car day decrease.

reliability.⁶¹ Exhibit VI-16 shows the negative correlation between switching events and network velocity, and Exhibit VI-17 shows the correlation between network velocity and service reliability.

Exhibit VI-16: Correlation between Switching Events and Network Velocity⁶²

Correlation coefficient: -0.87

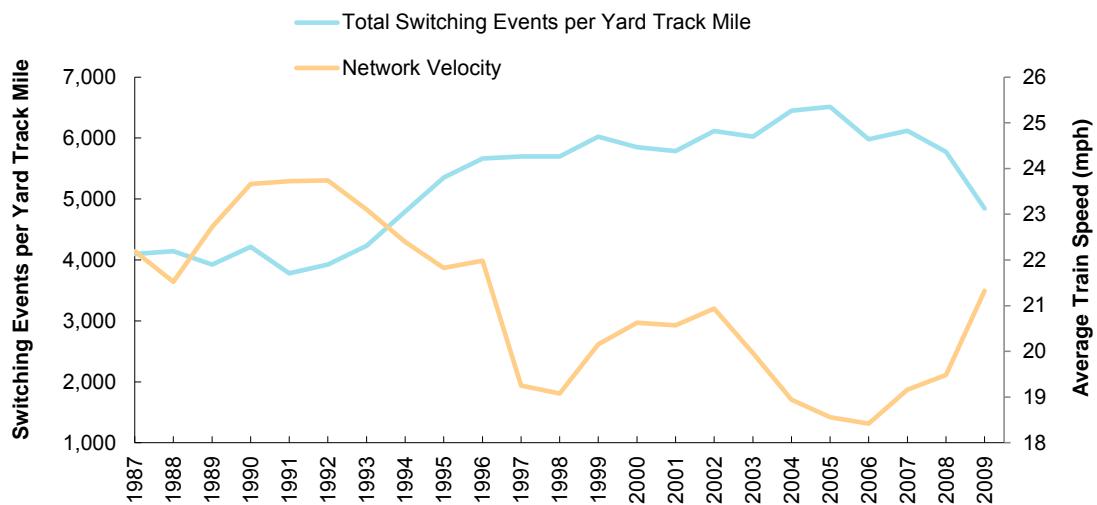
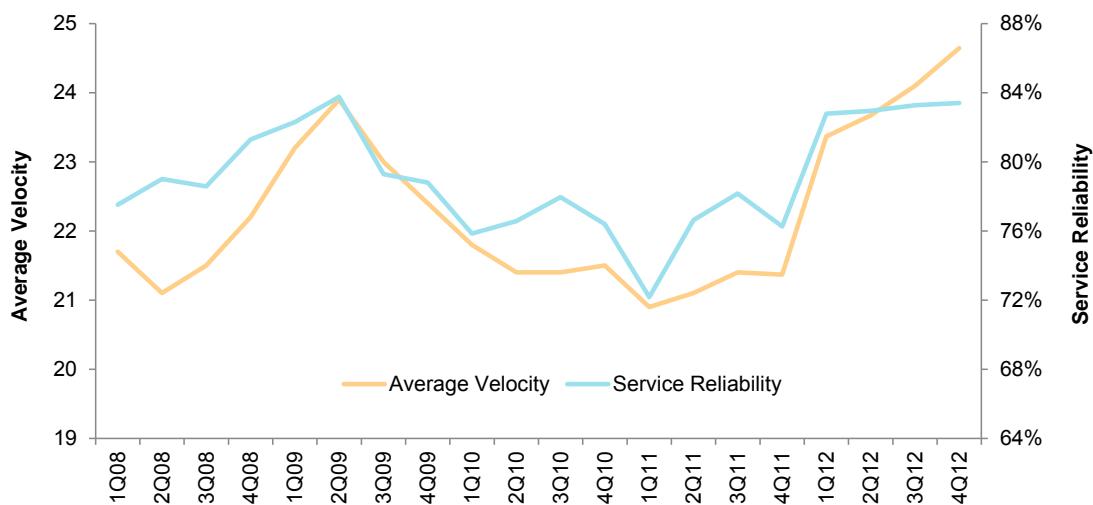


Exhibit VI-17: Correlation between Network Velocity and Service Reliability⁶³

Correlation coefficient: 0.879



⁶¹ So that as car miles per car day decrease, service reliability also decreases.

⁶² R-1 Schedules, AAR. Network velocity = train miles per train hour.

⁶³ NS Monthly Performance Reports, 2008-2012.

The exhibits above clearly show that substituting interchange service for single-line service could have a significant negative effect on service reliability. This effect also can be understood intuitively by analogy to the passenger airline system. Airline passengers understand that a non-stop flight both takes less time and is more reliable than a connecting flight. Changing planes increases the length of the trip by introducing “dwell time” at the connecting airport, as well as introducing the risk of a missed connection, which would further extend dwell time at the connecting airport and sharply reduce the probability of an on-time arrival at destination. When passengers must change both planes *and* airlines at a connecting airport, the amount of dwell time includes the time consumed in changing terminals (similar to the time consumed in moving to a railroad interchange location) and the consequences of a missed connection become more difficult to manage. This is the reason that virtually every airline booking program lists non-stop flights first, flights with one connection second, flights with multiple connections third, and flights involving multiple carriers last.

It is important to consider one difference between airline passengers and railroad customers: While airline passengers who choose to take connecting flights do impose some burden on airlines and airports by consuming space in airline terminals, in general the passengers are responsible for moving from one flight to the next. Thus, while a passenger’s decision to take a connecting flight might impose delays on that passenger, it will not affect other passengers. Railroad cars, however, cannot move from one railroad to another unassisted. Cars being switched consume yard capacity as well as capacity on lines connecting yards, and delay not only their own shipments but also the shipments of other customers. The analogous situation for air travelers would be if all customers making connections were required to wait at their arrival gates and then be transported by the airline as a group to their departure gates. Not only might

this lead to congestion in both arrival and departure gates, but it also might lead to delays caused by lack of capacity to move groups of customers from gate to gate.

Airlines understand that non-stop flights offer their customers faster and more reliable service and also reduce the costs and chance of missed connections involved in “interchanging” passengers at connecting terminals (which is equivalent to railcar switching at intermediate yards). When an airline has sufficient volume to make a non-stop route profitable, it will offer that service. Similarly, when a railroad can generate sufficient volume between two points on its system, it will build traffic blocks that skip switching at intermediate terminals along the way. Airlines also understand that passenger itineraries that involve multiple carriers are difficult to manage, because the airlines involved do not coordinate schedules. Likewise, competing freight railroads do not tend to coordinate schedules.

For airlines, the cost of dealing with passengers who misconnect is higher due to the added complexity of dealing with an outside carrier; the process of dividing and accounting for revenues and exchanging information between reservations systems is costly and time-consuming and introduces the chance for errors. That is why airlines do not price to encourage the use of multi-airline itineraries on routes they can serve directly and why, when they cannot serve an entire route directly, they join alliances. These alliances coordinate schedules, reduce the cost of “interchange” by sharing terminals, and reduce the cost of interline paperwork by setting up virtual flight numbers on connecting flights (“this flight is being operated in cooperation with our partners X and Y”) that simplify accounting. It is important to recall that these alliances are formed voluntarily between carriers, not forced upon them.

D. The NITL Proposal Would Degrade Network Efficiency

Increasingly sophisticated network planning designed to reduce work events has been an important driver of increased railroad network efficiency and reliability. Network planning has allowed the industry to evolve from basically shunting cars from one yard to the next at the dawn of the 1960's, with all the problems caused by repeated car handling, to increasingly running scheduled railroads in which each shipment has a specific trip plan. Oliver Wyman partners have been deeply involved in that evolution. MultiRail, which was developed by Oliver Wyman partners, was among the first software packages for rail operational planning. MultiRail and software tools like it allow railroads to build their operating plans based on infrastructure and demand.

Oliver Wyman recently conducted a survey of the service design groups at five North American Class I railroads.⁶⁴ Service design is the department within the railroad responsible for developing and adjusting the operating plan to define how cars are assigned to blocks, how blocks are assigned to trains, which trains should run, and the schedule for each train. The survey results yielded insights into how operating plans are developed and maintained. It was clear from the responses that stable and predictable traffic demand is an essential component to building an efficient operating plan.

- **Operating plans are built primarily using historical traffic:** Most railroads use historical traffic patterns to develop operating plans; forecasts are only used for long-range resource planning. If railroads are uncertain that assuming historic traffic patterns will remain valid going forward, as would be the case under the NITL proposal, then planning an efficient operation becomes much more difficult.

⁶⁴ “Service Design: Current Practices and Future Directions,” Carl Van Dyke, presentation at the Rail Planning Conference, Atlanta, GA, October 2012.

- **Changing the operating plan is a complex process:** Changing an operating plan, even with the advanced software tools available today, is an extremely complex process. Adding and deleting blocks can leave railcars stranded or introduce expensive inefficiencies into the system. Railroads, therefore, allow only a small group of four or five highly experienced staff to make changes to the operating plan. Most of the changes made are exceptions that expire after the current trip, which limits the damage from possible errors. Permanent changes to the plan occur less frequently and are developed through an intensely rigorous and interactive process. If traffic patterns deviate from historic patterns, as would be the case under the NITL proposal, it would increase the workload of the service design staff, since more and more frequent permanent changes would be required. These changes would increase the potential for introducing errors into the blocking tables and train schedules that are the basis for running the railroad.
- **Operating plans are changed infrequently:** Changes to the operating plan require a formal process, generally involving discussions with operations, commercial, and field offices to make sure that the plan can be executed and errors leading to service disruption for shippers are avoided. Therefore, changes to the operating plan based on fragmenting traffic flows and deviations from historic traffic patterns could disrupt operations as changes are made more frequently to the operating plan.

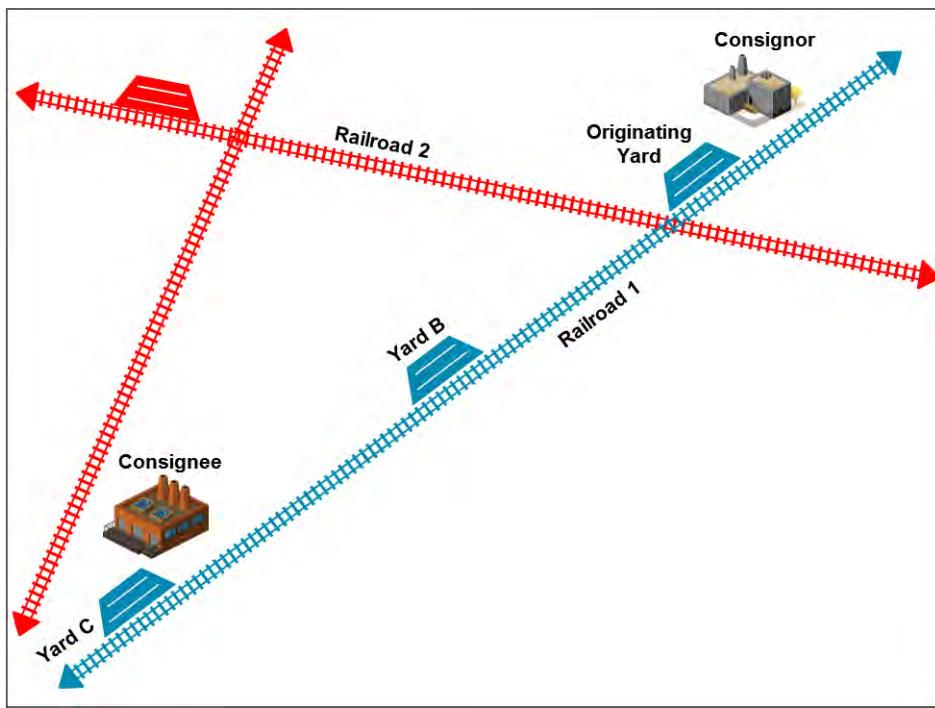
The NITL proposal would reduce the stability, simplicity, and predictability that is at the heart of the railroads' success in increasing the efficiency and reliability of the railroad network. Today, both the physical plants and the operating plans of the railroads are configured to assemble blocks of traffic that can move long distances without intermediate handling and to

move those blocks in long trains over densely utilized rail lines. The blocking strategy and train schedules work best in moving predictable, repetitive shipments.

The NITL proposal would give shippers the ability to force railroads to break up efficient and reliable single line movements – and the attendant blocking and operating plans – and to substitute less efficient and reliable interline movements. Traffic volumes using specific yards and lines could vary. The result will be suboptimal blocking strategies and train scheduling. Congestion would develop on some lines and yards not built to handle periodically increased volumes, while other lines and yards that periodically would serve lower volumes would be utilized inefficiently.

Bypass blocking: The efficiency of railroad operating plans is built not just on reducing switching at interchange locations and in service yards, but in reducing switching while a car is en route across a railroad's network. One of the most important factors in reducing car handlings is concentrating traffic in high-density yards and lines where a railroad has sufficient volume to build "bypass" blocks that move long distances without requiring intermediate switching. This is equivalent to substituting a non-stop airline flight for a connection, and it has the similar effect of reducing end-to-end travel time and improving reliability.

Exhibit VI-18 illustrates the benefits of the current operating situation, and one way in which the NITL proposal would undermine the railroads' ability to build efficient bypass blocks.

Exhibit VI-18: Bypass Block Example

In this example, the consignor is located on Railroad 1 within 30 straight-line miles of the interchange location with Railroad 2 and is served by a local train operating from the originating yard. A way train from the originating yard spots an empty car at the consignor's facility and once the car is loaded, retrieves it and moves it to the originating yard. At the originating yard, shipments from the consignor are combined with traffic from other shippers located on Railroad 1, some of which are located within 30 miles of the interchange location with Railroad 2. At present, there is sufficient volume of traffic generated by shippers served by the originating yard that is destined for points served by Yard C and beyond to make up a bypass block that runs directly from the originating yard non-stop to Yard C.

One of the most critical shortcomings of the NITL proposal is that it would fragment the traffic volumes needed to assemble bypass blocks. Shippers within 30 miles of the interchange location will have the option of diverting their traffic from the single-line routing via Railroad 1

to an interline routing via Railroad 2. If sufficient traffic is diverted, Railroad 1 will no longer have the volume required to build a bypass block going to Yard C and instead will add the traffic to the block going to Yard B, where it will need to be switched again and combined with other traffic in a block going to Yard C. If this happens, it would delay all shipments destined for Yard C and beyond, and reduce the reliability of Railroad 1 in serving those customers. It also will add traffic and intermediate switching at Yard B, which may not have the capacity to handle the added load. These problems – which are in addition to all of the problems the NITL proposal would cause in the interchange process itself – would degrade service to all customers using Railroad 1.

It is important to understand that gains and losses in traffic are not a zero sum game. It is more likely that railroads will randomly lose traffic on some lines and gain traffic on others than that they will have the good fortune of offsetting gains and losses on a single line. The result could be the loss of critical density on some lines, such as the case illustrated in Exhibit VI-15, and gains on lines and yards that are already at or near capacity.

Scheduled railroads: Much of the success of the railroad industry over the past 30 years has been achieved through streamlining and simplifying the network and network operations. Simplifying the railroad network has made it more stable, which has enabled the Class I railroads to implement “scheduled railroad” planning processes that provides shippers with individual trip plans for every shipment and optimizes the use of scarce capacity in yards and main lines.

The “scheduled railroad” concept utilizes sophisticated software to build and run trains according to a defined schedule (rather than simply waiting for a train to be full before it is moved). Scheduling improves on-time delivery to shippers, thus saving shippers money from reduced safety stock and inventory carrying costs. Scheduling is particularly critical to meet the

“just-in-time” requirements that many shippers have instituted as part of their finely honed supply chains, enabling railroads to better compete with motor carriers.

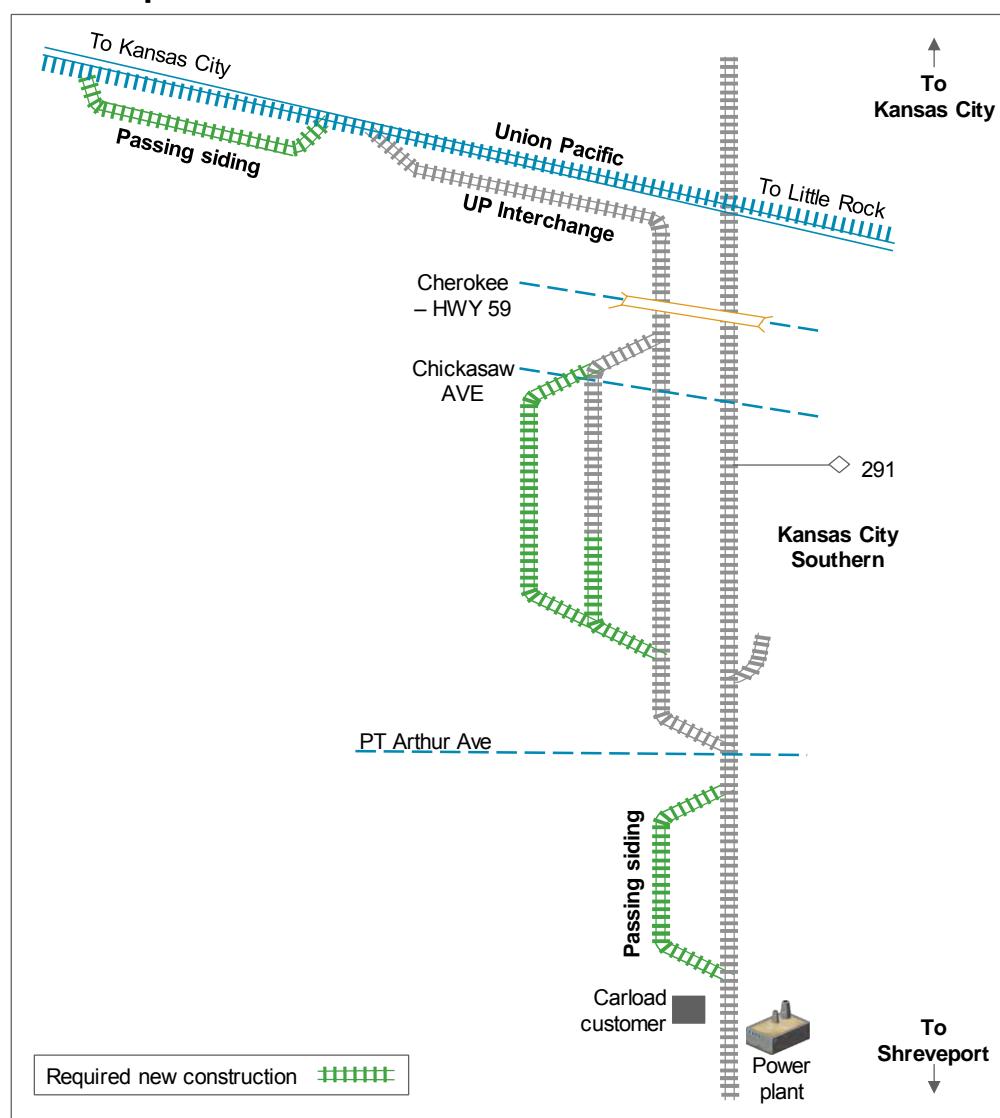
The key to the “scheduled railroad” network planning process is single-line, or highly coordinated end-to-end interchange service, and large repetitive traffic flows of both single cars and groups of cars that can be forecasted and modeled. While railroads can, and do, cope with fluctuations in particular traffic groups from year to year, the magnitude of these fluctuations becomes predictable over time. The NITL proposal would disrupt historic traffic flows and reduce the validity of assumptions based on historic patterns. It would be more difficult for railroads to design and execute reliable trip plans under these circumstances. This, in turn, could make it materially more difficult to operate “scheduled railroads.” The loss of reliability due to a reduced ability to create trip plans based on valid historical assumptions could well compound the loss of reliability that would result from increased car handlings caused by the substitution of interchange service for single-line service.

E. The NITL Proposal Would Cause Inefficient Use of Infrastructure and Human Capital

Line and Yard Capacity

As discussed earlier, the NITL proposal could lead to reduced volume on some lines and yards, which would cause inefficient use of those facilities, and increased traffic on lines and at facilities that do not have the capacity to handle it. Exhibit VI-19 provides an example of a facility that is adequate for its current use, but could require significant investment to handle an increase in traffic.

Exhibit VI-19: Example Investment to Accommodate Increased Traffic



Sallisaw, OK is a station on the Kansas City Southern (KCS) mainline between Kansas City, MO and Shreveport, LA. The KCS main line crosses the Union Pacific's (UP) main line between Kansas City and Little Rock at grade just west of the town. At one time, Sallisaw was an active interchange point between the UP and KCS, and KCS maintained a small yard there. Over the years, local traffic and interchange traffic dwindled and there was no need for the yard. Materials from yard tracks were salvaged and redeployed elsewhere on the KCS system. Today, there is a single interchange track and a 1,700 foot side track that is used primarily to set out bad order cars and to store maintenance of way equipment. Both are remnants of the yard. Instead, KCS and UP have invested significant capital to develop an efficient interchange location at Kansas City, where traffic bound to and from points near to Sallisaw is interchanged.

Two KCS customers are located south of Sallisaw within 30 straight-line miles of the interchange location. One customer receives unit coal trains and the other receives small numbers of individual cars. In both cases, the traffic originates on a western railroad and is interchanged to KCS at Kansas City. The traffic is then delivered directly by KCS over its main line. The operation is efficient and sufficient line and yard facilities are in place in Kansas City to support it without further investment.

However, should the two shippers located within 30 miles decide to force access at Sallisaw under the terms of the NITL proposal, both UP and KCS might be required to spend considerable funds: While the present facilities at Sallisaw would support interchange service, they would be inadequate to support an efficient operation. To reliably interchange traffic:

- The UP and KCS each would need to build an 8,000 to 10,000 foot siding to hold unit trains off the main line until an interchange event could be accomplished. Trains would need to hold because:

- Both the UP and KCS main lines are densely used and cannot be blocked by trains waiting to interchange.
- The interchange track is too short to hold a unit train. The closest siding where UP could stage a unit train for KCS would be 16 miles north of Sallisaw at Upson.
- Neither KCS nor UP have crew based at Sallisaw, and as the unit train will change crews as it moves from one railroad to the other, crews will need to be transported by taxi from the nearest crew base. If a crew is late it would delay the unit train and block one main line or the other.
- The coal receiver might not be ready to receive the train when it arrives.
- The KCS would be required to restore two yard tracks in addition to the interchange track to accommodate the carload shipper. The additional yard tracks would be required because:
 - Carload interchange traffic cannot block the interchange track because it is used for unit train interchanges.
 - One yard track will be required to spot interchange cars.
 - A second yard track will be required to accommodate maintenance of way equipment and occasional bad order cars that are stored at Sallisaw today.

KCS will discuss the operating difficulties that would be caused if forced access was required at Sallisaw and other issues in greater detail in its testimony in this proceeding.

The situation at Sallisaw, where KCS and UP have invested in an efficient interchange location at Kansas City but could be required to invest millions to restore a less efficient interchange point, is not likely to be an isolated example. To avoid creating congestion at interchange points throughout the country that would degrade network efficiency and reliability, railroads could need to construct additional sidings near these points, for the following reasons:

- **Local trains that work the interchange location would need more space.** Local trains that have to make several switching moves need “headroom” to occupy the main line track. If a through train needs to use the main line during the switching operation, the local train would clear the main line to permit the through train to pass.
- **Local trains would need to make two moves instead of one.** Local trains consume two “slots” on the main line: one when arriving, and one when departing.
- **Slow speed unit train operations entering and leaving.** Local and interchange-bound unit trains consume more mainline capacity than through trains at the interchange point, since they enter or exit a slower-speed secondary track or siding.
- **Locomotive changes for unit trains.** In some cases, unit trains may be required to change locomotives at the interchange point, or to attach a pilot locomotive to accommodate incompatibilities with the signaling system. Such locomotive changes are likely to consume main line capacity as the road locomotives maneuver to or from the train, even if the train itself is clear of the mainline.
- **Trains waiting for interchange tracks.** With increased use, interchange tracks may be occupied when local or unit trains arrive. Unless a railroad constructs additional sidings in the vicinity of the interchange location, trains waiting to enter an interchange point would occupy main line track.

In addition to building additional passing sidings in the vicinity of interchange locations, investments could be required in the interchange facilities themselves to handle increased volume. These investments might include:

- More storage tracks for carload traffic: Interchange locations are designed to fit the traffic; additional track likely would be needed at many locations to handle an increased volume of cars.
- More storage tracks for unit train traffic: Additional siding tracks may need to be constructed on both sides of the interchange location to ensure sufficient landing or storage slots for unit trains. These train-length storage tracks enable trains to stay off of the mainline while waiting for access to the interchange point.
- Lengthening of interchange tracks: In many cases, interchange tracks were built in a previous period and are not long enough to accommodate modern unit trains. To avoid blocking the main lines of the connecting railroads, these interchange tracks will need to be lengthened. This will require design, permitting, and construction and may well encounter opposition where the new tracks cross highways or otherwise infringe upon adjacent neighborhoods.
- Layout of storage tracks: With an increase in volume, some interchange locations may become more difficult to serve with the existing track layout. For example, the “leads” to the storage tracks may need improvements in layout to permit efficient switching without blocking main lines.
- Substantial or complete rebuilding: Way and passing tracks at many lightly used interchange points have been downgraded or removed, and some interchange locations that remain “open” have no connecting tracks at all.

The building of such new capacity would be difficult, expensive, and time consuming.

Potential environmental, legal, and land acquisition hurdles would have to be overcome. Capital would need to be reallocated from other critical maintenance or upgrading projects. Additionally, in the urban areas where many busy interchange points are located, such additional rail

infrastructure may be impossible to construct due to neighboring structures, neighborhood opposition, and other pre-existing conditions.

Yards also are expensive to construct and maintain, and in urban areas, are often physically constrained by surrounding development. Since most serving yards are sized to handle a stable flow of traffic and to perform only limited switching, in many cases they might not have sufficient track space to accommodate increased interchange traffic or to carry out the additional switching that could be created by implementation of the NITL proposal efficiently (see Exhibits VI-5 and VI-6). Other yards could be left with excess capacity due to decreased traffic. Given that traffic flows could be less stable than historic traffic flows, it could be difficult for the railroad to justify investments in additional capacity. As demonstrated earlier, this could lead to yard congestion, inefficient blocking, and the possibility that congestion will spill out of the yards onto adjacent main lines, potentially triggering a service disruption for all shippers.

If the railroad industry is unable to deploy its limited capital in an optimal way, it could find it more difficult to provide the 46 percent increase in capacity that the US Department of Transportation has forecast will be required to meet our nation's transportation needs by 2040.⁶⁵ This is especially true if railroads are compelled under the terms of the NITL proposal to invest in facilities, such as Sallisaw, where a more efficient facility already exists or to invest in new line and yard capacity to accommodate changes in traffic flows while other existing facilities that are well utilized today become underutilized.

Human Capital

The current railroad workforce has been developed and deployed to maximize operating efficiency and network reliability. The ability of the railroad industry to optimize the efficient

⁶⁵ Freight Facts and Figures 2012, US DOT.

use of its people and capital assets is based largely on rationalizing the network and simplifying railroad operations. The railroad industry today is designed to transport repetitive shipments in efficient trains over long distances, and to do so with as little handling of each shipment en route as possible.

The NITL proposal would weaken the foundation of the railroad network by introducing uncertainty into the process of designing operations and deploying railroad labor as efficiently as possible. Railroads might be less willing to add employees because they may be less certain that historic traffic flows will remain stable, and the process of reducing employment is disruptive and cumbersome.

When traffic in a particular area temporarily declines, employment levels must be cut back. Under agreements with their employees, to reduce head count in crew bases, rail carriers must abolish board positions. In many cases, workers must be given prior notice of job abolition, so positions cannot be immediately eliminated and railroads are obligated to pay the crews assigned to these positions, whether there is work for them or not, until the notice period expires. When the notice period ends, the jobs can be abolished.

Once their job is abolished, displaced employees can place themselves on a bump board that allows them to be paid for a limited time while looking for another work assignment. Typically, when moving to another assignment, a crewman will bump another employee to the bump board. The bumping process will continue on until all moves have been accomplished. Those employees who do not have a job to bump to would be furloughed.

Employees who find new positions may need to change reporting points and make other changes in their personal lives. Those who are furloughed can be expected to look for other work

and may not be available should the railroad need to begin hiring again. In this case, the railroads would need to train and qualify new employees.

The net effect of the NITL proposal would be no change in total employment, but a great deal of disruption – both to the railroads and to individual employees – as railroads adjust their work forces to accommodate shifts in traffic volumes and flows.

Forced access also will needlessly increase railroad labor costs. For example, railroads try to schedule road trains to operate for a full shift (or for a given number of miles). However, if a shipper can compel a railroad to interchange traffic to another railroad, then crew costs may rise due to:

- **Terminating a run prior to the destination terminal:** The crew of a unit train that used to operate across crew districts might now be required to terminate its run at an interchange point away from its destination terminal; in which case, the railroad would have to provide a crew van to move the crew from the interchange point to its destination terminal.
- **“Short crews”:** Under the proposed interchange regulations, unit trains might be interchanged at a point within 30 miles of the origin or destination. To move the unit train the short distance to or from the interchange location, the railroad would need to call a road crew that would run only a short distance (known as a short crew). These short crews are potentially expensive, because after the crew has completed its work, it often has available hours that cannot be otherwise utilized.

In all of these cases, extra crews would be required solely to accommodate the shipper’s demand for interchange. No additional traffic would move. Therefore, the crew cost per railcar would increase and the railroad network would operate less efficiently.

Equipment

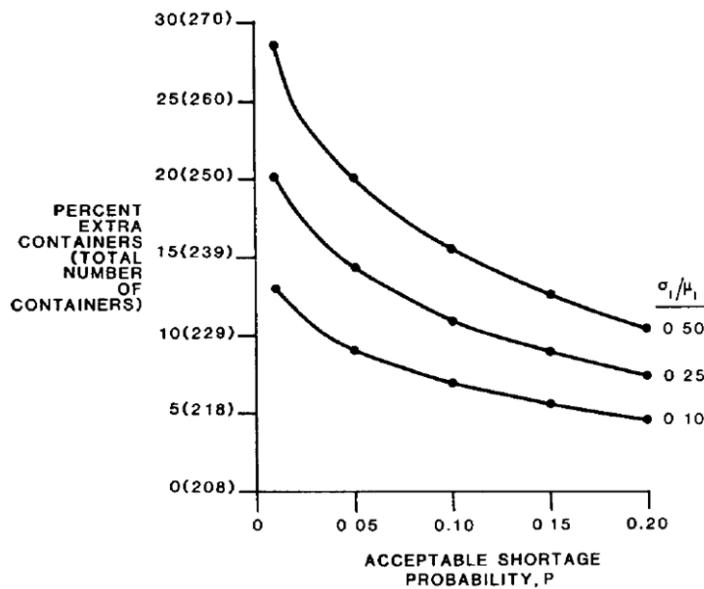
A further consequence of the reduced network efficiency and reliability brought about by the NITL proposal would be the need for additional freight equipment. Railroads and their customers size their equipment fleets according to the stability and reliability of the network, providing a margin (similar to safety stock) to cover unexpected events. The more stable and reliable the network, the smaller the margin can be. The more uncertainty as to traffic volumes and flows that is introduced into the system, the more equipment will be needed to cover the needs of railroads and their customers. For example, in documents related to its operations at Sidney, OH, described in Section VI. A of this statement, Cargill discussed that travel from its facility to the interchange point and back required movements totaling 400 miles. “This 400 mile detour to the west unnecessarily increases the cycle times for Cargill’s private car fleet of railcars. As a consequence, Cargill incurs higher product inventory costs and must maintain a larger fleet of railcars.”⁶⁶

Exhibit VI-20 below, from a seminal paper on fleet sizing, demonstrates the percentage of additional equipment required (y-axis) for different acceptable levels of running out of equipment (x-axis).⁶⁷ The three lines represent different levels of uncertainty in travel times, such as delays caused by main line and yard congestion, with the topmost indicating the most uncertainty. Clearly, as travel time uncertainty rises, as we have seen that it might under the NITL proposal, the fleet size needed to ensure sufficient equipment availability increases as well, leading to the need for greater investment in equipment, which would impact shippers as much as railroads (as shippers own a significant percentage of the railcar fleet).

⁶⁶ Finance Docket 33388 (Sub-No. 91) Status Report and Request to Establish a Deadline of Cargill, Incorporated, April 28, 2003.

⁶⁷ Although the paper focused on container (intermodal) fleets, this equation will hold true for any railcar fleet.

Exhibit VI-20: Fleet Size Trade-Off for Different Levels of Travel Time Uncertainty⁶⁸



Thus, if the NITL proposal is adopted, both shippers with private fleets and railroads could be required to maintain larger car fleets to accommodate the inefficiency of interline routings and the degradation of reliability and network velocity. The addition of cars to the fleet would require construction of additional yard and storage tracks. As demonstrated in Exhibits VI-5 and VI-6, railroads would need to provide additional track space at serving yards to accommodate changes in traffic patterns, including periodic surges caused by “pop up” switching traffic. Shippers would be required to construct additional storage tracks at their facilities. In some cases, there may not be sufficient land to add capacity at serving yards and shipper facilities. Moreover, as demonstrated in Exhibit VI-19, railroads also would be required to construct additional capacity at classification yards to accommodate additional intermediate switching due to the reduction in bypass blocks.

⁶⁸ Turnquist, Mark A., William C. Jordan, “Fleet Sizing under Production Cycles and Uncertain Travel Times,” *Transportation Science*, Vol. 20, No. 4, November 1986, p. 235.

The NITL proposal also would increase the need for railroads to provide locomotives.

Locomotives are one of the most expensive assets owned by railroads and therefore have been the subject of ongoing productivity improvement efforts. This includes reductions in “light” (repositioning) movements, increases in the tons moved per locomotive, and increases in the time spent doing productive work. All of these improvements are directly aimed at operating a safe and reliable system that moves as much freight as possible with as few locomotive assets as possible. By streamlining operations through network simplification, running longer, heavier trains, and improving rail infrastructure and capacity, railroads have been able to increase the time locomotives spend doing productive work.

Interchanging traffic with a competitor requires a change in locomotives or the negotiation of a run-through agreement. Every interchange to another rail carrier increases a unit train’s transit time, thus increasing locomotive hours, due to the delays associated with the handoff between the two railroads.

The locomotive consist on a run-through unit train would typically be subject to one of three scenarios at the interchange location:

- Consist travels through the interchange point, with no locomotive change from origin to destination
- Consist is completely “changed out” at or near the interchange location
- New lead “pilot” locomotive is added to the locomotive consist at or near the interchange location

Similar to unit trains, locomotive demand for local train services at interchange points would also increase if shippers are permitted to insert interchanges into single-line routes. The increase in locomotive demand would be primarily driven by volume and time-related factors.

F. The NITL Proposal Would Increase the Exposure of Employees and the Public to Hazardous Material Shipments

If shippers exercise the proposed right to compel railroads to interchange traffic, then some hazardous materials shipments now moving in single-line service would have to move through at least one interchange point. This would create additional handlings and in-transit dwell, introducing greater risk and exposure for railroad employees and the general population. Due to the fact that many railroad interchange points and classification facilities lie within or near urban areas, the additional time that some interchanged hazardous materials shipments would incur while traveling between origin and destination would occur near population centers. Thus, the additional time that hazardous materials spend near densely populated areas means increased exposure for a large number of urban residents.

For example, CSX currently transports 50 to 90 car shipments of ethanol that it receives from an end-to-end western connection at Chicago to a facility in Baltimore. Ethanol is classified as a hazardous material. CSX's single-line route from Chicago to the facility avoids the center of Baltimore and the Howard Street Tunnel. However, the facility in Baltimore is located within 30 miles of a CSX interchange with Norfolk Southern at Bayview. If mandatory switching was ordered, the shipper could route the traffic from Chicago to Baltimore via Norfolk Southern, with final delivery from Bayview to the facility to be performed by CSX.

The CSX route from Bayview to the facility passes through the Howard Street Tunnel and the heart of downtown Baltimore. It passes both M&T Bank Stadium, which is used by the Baltimore Ravens, and Camden Yards, which is used by the Baltimore Orioles. It also passes near a Maryland DOT commuter rail line and terminal, a light rail route to BWI Airport and the tourist center at the Inner Harbor. Thus, the NITL proposal could create a situation in which a shipper could force CSX to transport large shipments of a hazardous material (which under its

current single-line route bypasses the dense center of Baltimore) directly through the center of the city in close proximity to facilities that attract large numbers of people daily.

Additional complications arise in handling the subset of hazardous materials classified as rail security-sensitive materials (RSSM). These materials require additional handling precautions, referred to as positive handoffs. In executing positive handoffs, a rail carrier's employees are required to hand over RSSM shipments personally to a representative from another carrier or a consignee. In other words, the rail carrier's employee must remain with the shipment until relieved by an agent for the receiving carrier or customer. In cases where the receiving agent is late, the rail carrier's employee, and the crew he or she is part of, are required to wait until relieved of responsibility. In the case of a positive handoff requirement at an interchange location, should the second carrier not be able to respond in a timely fashion, the original crew would have no choice but to return to its home terminal with the RSSM shipment. Consequently, the shipment would be subjected to yet more handlings and more delay, with all of the attendant risk of accident for as long as the shipment remains in transit.

While the risk of an accident is small, the consequences of any incident involving such hazardous materials can be grave. As an example, in 2005 a car carrying chlorine, an RSSM shipment, ruptured during the course of an accident in a small town in South Carolina that is not densely populated, releasing 60 tons of chlorine gas. Nine persons died as a result of the accident and everyone within one mile was evacuated for one week. A similar accident during handling at an interchange point in a densely populated urban area would result in serious consequences on a far wider scale.

G. The NITL Proposal Would Impact Commuter and Passenger Rail Service

The railroad network in the United States is shared among freight railroads and passenger railroads. Passenger trains often have priority and so the effects of increased congestion would be felt first by freight users. However, the frequency of passenger operation means that shared lines often are already congested, and thus any increase in congestion caused by forced access could easily reach beyond freight users to impact service for users of commuter rail and intercity passenger rail.

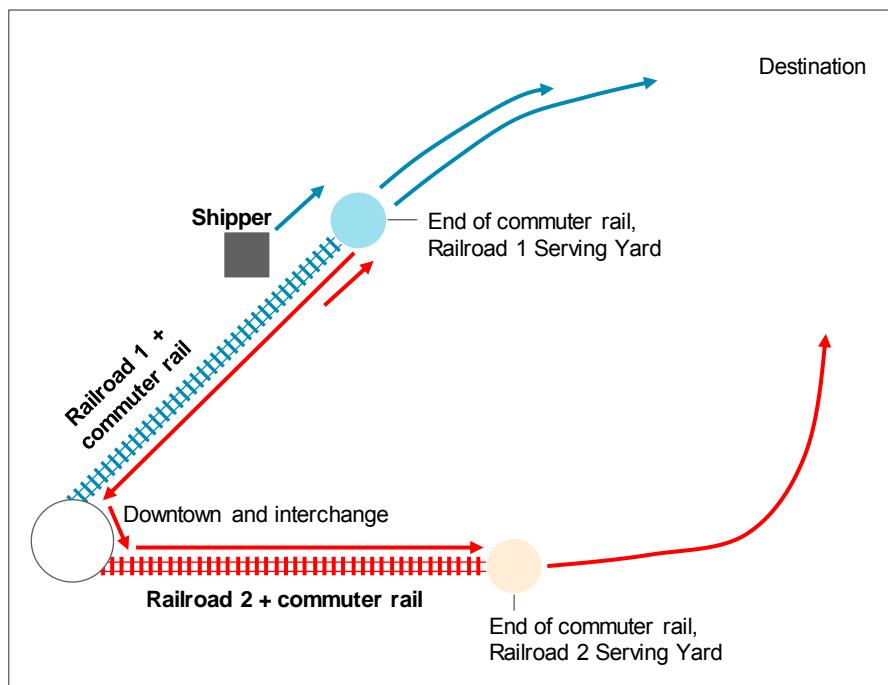
Many of the urban areas most likely to be affected by the NITL proposal have commuter rail operations (see Exhibit VII-3 below). More than a dozen commuter railroads operate in eight of the regions likely to be highly impacted, and Amtrak operates intercity passenger service across all of the regions.⁶⁹ Changing well established traffic patterns where freight and passenger operators have made capacity adjustments to minimize conflict might create the risk of disruption to passenger operations as well as freight – particularly where existing capacity is already limited or congested.

Exhibit VI-21 describes a hypothetical case that is typical of commuter rail districts today. Freight rail users generally have shifted away from the center of cities to the outer ends of commuter rail districts and the volume of rail freight near downtown has declined significantly since the middle of the 20th century. Both because their customers have moved and to free up property occupied by yards for higher-value uses, the serving yards for freight traffic have also in many cases moved to the ends of the commuter district or beyond that district.

⁶⁹ Regions with commuter operations: Portland, OR, (West Side Express), San Francisco, CA (Caltrain, Altamont Commuter Express), Los Angeles, CA (SCRRRA), Minneapolis, MN (North Star), Dallas / Fort Worth, TX (TRE, Denton), Chicago (Metra, NICTD), Philadelphia / Baltimore / Washington (SEPTA, MARC, VRE), NY/NJ (NJT, METRA).

In our example, a shipment from a customer at a closed station within the commuter district where freight service is provided by Railroad 1 will move from that customer to the serving yard and then on to trackage outside of the commuter district to its destination. However, the NITL proposal could force Railroad 1 to interchange the car with Railroad 2. In that case, the car would move from the shipper to Railroad 1's serving yard, then over Railroad 1's track in the commuter district to an interchange with Railroad 2 at a yard close to downtown, and then over Railroad 2's track in the commuter district to Railroad 2's serving yard. The downtown interchange location may be physically constrained, and the movement could well require the operation of local trains within the congested commuter district that are not required today. Alternatives involving interchange points outside of the commuter district likely would involve more circuitous routings and intermediate handlings, which would further delay the shipment.

Exhibit VI-21: Example Impact on Commuter Rail District of the NITL Proposal



The importance of minimizing conflicts between freight and commuter railroad operations is evident in the investments recently made to minimize such conflicts. For example, when the

Commonwealth of Massachusetts wanted to expand commuter railroad service between Boston and Worcester, the parties reached an agreement with CSX that not only included purchase of rail lines by the Commonwealth, but also relocated freight service yards in the commuter district to an area where they would create less interference with passenger operations. The agreement included raising clearances west of Worcester so that the new container terminal at Worcester would operate at lower cost. This agreement clearly shows that network linkages between commuter operations and freight operations go well beyond commuter territory.

H. The NITL Proposal Could Increase the Risk of Accidents and Injuries

The improvement in railroad safety since passage of the Staggers Act in 1980 has been one of the great success stories of the railroad industry. The industry has made significant strides in both employee and public safety: Between 1980 and 2011, the train accident rate fell by 76 percent and the rail employee injury rate fell by 84 percent⁷⁰ Further, from 1990 through 2009, employee fatalities declined by 60 percent.⁷¹

In terms of employee injuries and illnesses, 2011 was the safest year ever for the US railroad industry. The rate of injuries and illnesses declined by 10 percent from 2.0 to 1.8 per 100 full-time equivalent railroad employees. The rate of train accidents per million train miles was the second lowest since 1980.⁷²

As I have demonstrated, the NITL proposal would significantly increase the number of switching operations required to move the same amount of freight. Switching is the most dangerous activity for railroad employees. A report by a joint labor-management railroad industry group formed by the US Federal Government to analyze railroad employee fatalities

⁷⁰ Railroad Fact Book, 2012 edition, op. cit., pp. 64-65.

⁷¹“Switching Operations Fatality Analysis,” International Railway Safety Conference 2010, Michael J. Martino, AAR, p. 1.

⁷² Railroad Fact Book, 2012 edition, op. cit., pp. 64-65.

during switching operations concluded in 2010 that “The majority of fatal injuries incurred by on-duty railroad personnel occur during switching operations.”⁷³

Moreover, as Exhibit VI-22 demonstrates, train accidents occur 17 times more often in yards than on the road.

Exhibit VI-22: Accidents per Million Train Miles vs. Accidents per Million Yard Switching Miles⁷⁴

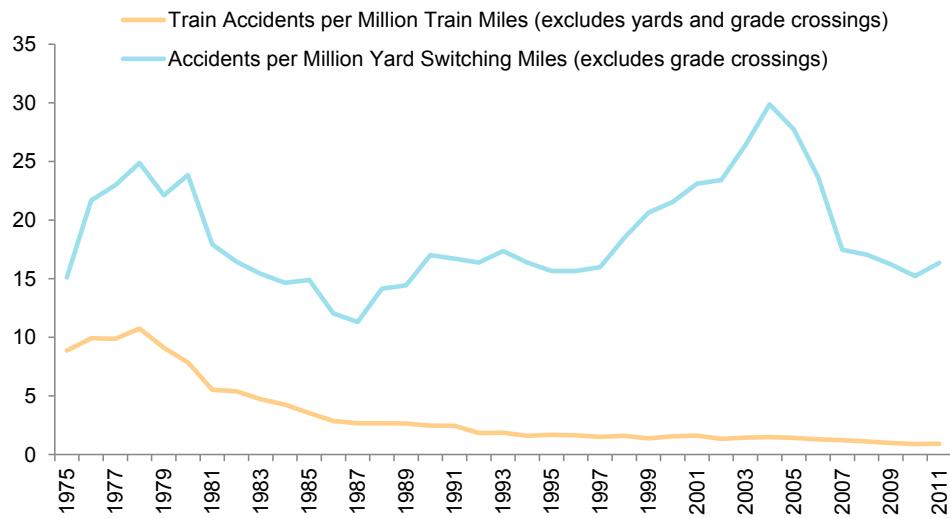


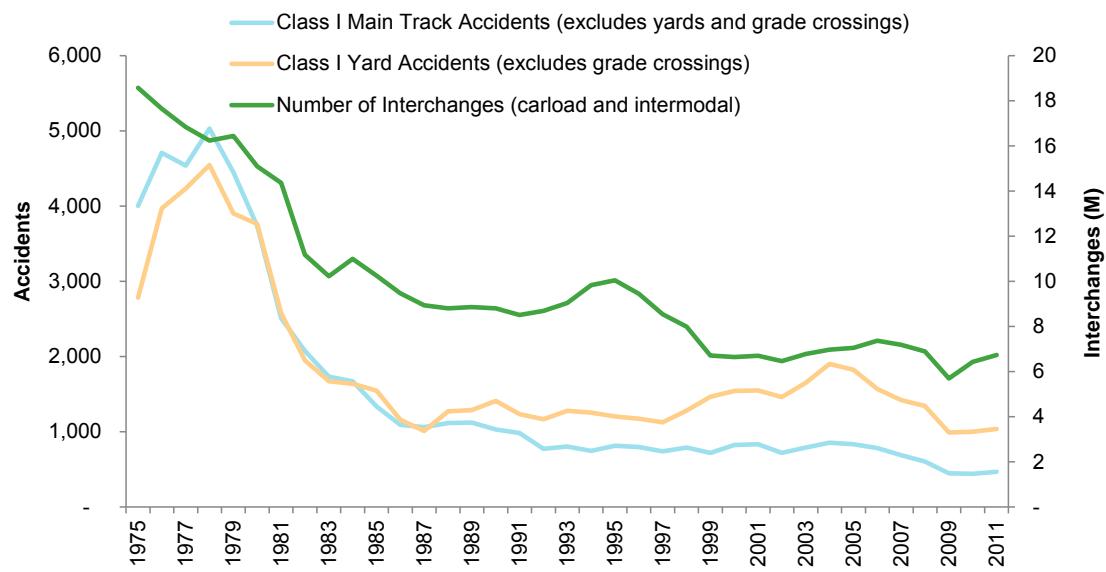
Exhibit VI-23 shows that the number of cars interchanged is closely correlated to the number of injuries to Class I employees in yards.⁷⁵ If the number of cars interchanged increases, then the number of injuries to railroad employees working in yards also would also likely increase. The exhibit also demonstrates that the number of employee injuries occurring in yards, where the majority of interchange events take place, is twice the number of injuries to employees occurring on the line of road.

⁷³ “Switching Operations Fatality Analysis,” op. cit.

⁷⁴ FRA accident data, compiled by the AAR.

⁷⁵ Pearson’s Correlation of 0.855.

Exhibit VI-23: Track and Yard Accidents vs. Number of Interchange Events, 1975-2011⁷⁶



⁷⁶ FRA accident data, prepared by the AAR.

VII. The Potential for Wide-Ranging Disruption Under the NITL Proposal

The NITL proposal would create an environment with the potential for wide-ranging impacts on rail network fluidity and adverse effects on rail efficiency, by requiring the railroads to provide additional resources to move the same amount of freight. The NITL proposal would also create the potential for widespread breakdown of rail service to all shippers. In this section of my report, I begin with a description of the scope and locations where forced access would occur. I then discuss various rail service and performance measures that would be affected by the NITL proposal, and show how the rail industry will be set back at least 15 years with respect to those measures. Finally, I explain how service for rail shippers generally, and not just those for those who choose to use forced access, could be materially degraded.

A. The Scope and Locations of NITL Proposal Impacts

The NITL proposal would potentially impact 3,353 rail network locations (Standard Point Location Codes or SPLCs) and over 15 million loaded and empty railcar trips each year, representing 26 percent of total US rail traffic.⁷⁷ Nearly every state contains locations where additional interchange activity would occur, as shown in Exhibit VII-1. Exhibit VII-2 further illustrates that the impacts would be significant in virtually every region of the country: the top 12 states affected, sorted by the potential number of loaded cars interchanged, span from Minnesota, to Texas, from California to Virginia. Every region of the country would be at risk of losing rail network fluidity, reduced rail efficiency, and disrupted supply chain patterns.

⁷⁷ The percentage is based on 7.53 million loaded originations at forced access locations, divided by 29.31 million total loaded cars originated (from 2010 Freight Commodity Statistics, AAR).

Exhibit VII-1: Distribution of Rail Network Locations (SPLCs) Potentially Impacted by the NITL Proposal⁷⁸

Map Redacted From Public Version

⁷⁸ FTI analysis of the 2010 STB Carload Waybill Sample to establish locations of potential forced access under the NITL proposal; Oliver Wyman mapping of locations.

Exhibit VII-2: Number of Forced Access Locations and Potentially Impacted Loaded Cars by State⁷⁹

Loaded cars originated and terminated in year 2010 at potentially impacted freight stations

| State | Number of Forced Access Locations | Cars Originated at Forced Access Locations | Cars Terminated at Forced Access Locations | Potential Additional Interchange Events |
|-----------|-----------------------------------|--|--|---|
| MN | 133 | 536,877 | 256,525 | 793,402 |
| TX | 278 | 268,000 | 503,716 | 771,716 |
| IL | 256 | 345,948 | 375,627 | 721,575 |
| WV | 69 | 506,230 | 54,794 | 561,024 |
| AL | 102 | 197,669 | 227,870 | 425,539 |
| OH | 155 | 200,921 | 205,835 | 406,756 |
| MO | 81 | 31,812 | 363,513 | 395,325 |
| IN | 98 | 175,606 | 159,734 | 335,340 |
| LA | 90 | 137,464 | 183,925 | 321,389 |
| PA | 179 | 70,915 | 231,864 | 302,779 |
| CA | 201 | 90,965 | 204,647 | 295,612 |
| VA | 102 | 145,932 | 109,845 | 255,777 |
| MI | 80 | 150,409 | 102,917 | 253,326 |
| GA | 122 | 85,435 | 167,517 | 252,952 |
| IA | 92 | 105,414 | 141,434 | 246,848 |
| NC | 155 | 35,438 | 210,778 | 246,216 |
| SC | 93 | 58,284 | 159,412 | 217,696 |
| KY | 45 | 91,947 | 95,517 | 187,464 |
| OK | 46 | 33,393 | 134,604 | 167,997 |
| AR | 53 | 75,102 | 77,618 | 152,720 |
| TN | 55 | 64,093 | 88,185 | 152,278 |
| ND | 82 | 103,183 | 32,756 | 135,939 |
| WI | 60 | 35,579 | 80,443 | 116,022 |
| NE | 71 | 77,949 | 31,354 | 109,303 |
| NY | 55 | 36,638 | 63,971 | 100,609 |
| MS | 57 | 35,916 | 62,388 | 98,304 |
| OR | 81 | 32,116 | 46,389 | 78,505 |
| CO | 59 | 11,143 | 66,987 | 78,130 |

⁷⁹ Loaded cars from the 2010 STB Carload Waybill Sample. Locations from analysis conducted by FTI. The number of cars in practice would double these totals, since empty cars will need to be repositioned.

| State | Number of Forced Access Locations | Cars Originated at Forced Access Locations | Cars Terminated at Forced Access Locations | Potential Additional Interchange Events |
|------------------|-----------------------------------|--|--|---|
| KS | 65 | 36,862 | 40,766 | 77,628 |
| MD | 51 | 7,280 | 57,197 | 64,477 |
| FL | 21 | 12,084 | 51,045 | 63,129 |
| WA | 64 | 29,130 | 28,939 | 58,069 |
| SD | 24 | 46,409 | 3,339 | 49,748 |
| AZ | 21 | 3,980 | 39,474 | 43,454 |
| UT | 38 | 22,433 | 9,764 | 32,197 |
| NV | 19 | 1,720 | 21,705 | 23,425 |
| NJ | 58 | 3,880 | 19,239 | 23,119 |
| DE | 11 | 5,156 | 9,180 | 14,336 |
| All Other | 27 | 10,016 | 4,988 | 15,004 |
| Totals | 3,349 | 3,919,328 | 4,725,801 | 8,645,129 |

Though widespread, the distribution of affected traffic would not be uniform, but heavily concentrated in the upper and lower Midwest, the Gulf Coast, and the Southeast/East, particularly around areas with high volumes of rail traffic and high line density.

- **Midwest:** Illinois would have over 250 forced access points, potentially adding interchanges for 350,000 originating cars and 375,000 terminating cars annually. The region that includes Illinois, Iowa, Ohio, Minnesota, Missouri, and Indiana would have over 800 forced access points under the NITL proposal, for a combined total of nearly 2.9 million potential additional loaded car interchanges, and another 2.9 million potential additional empty car interchanges.
- **Gulf Coast:** This region is already coping with dramatic increases since 2010 of rail shipments of crude oil, as well as frac sand, pipe, and other drilling materials for the growing natural gas drilling industry. Texas would have approximately 275 newly opened or expanded access points, which could potentially add interchanges for at least 265,000 originating cars and more than 500,000 terminating cars (as data is 2010, the total for today's

cars would likely be higher). Louisiana would have 90 impacted access points, adding nearly 138,000 originating car interchanges and 184,000 terminating car interchanges.

- **Southeast/East:** Alabama, Georgia, North Carolina, Pennsylvania, South Carolina, West Virginia, and Virginia would have more than 800 newly opened or expanded access points, which could result in approximately 2.2 million potential additional loaded car interchanges, and a corresponding 2.2 million potential additional empty car interchanges.

Compounding the potential for service disruption and additional network complexity, these concentrations of impacted switching locations are found on some of the highest-density rail lines in the country. As an analogy, consider an interstate highway that is near capacity, but flowing smoothly. Around on- and off-ramps, the flow tends to slow as cars weave between lanes to exit or merge. Now imagine a number of dormant ramps in the same compressed territory suddenly open to traffic. Such a change, by introducing more options for vehicle maneuvering, would slow down traffic even further.

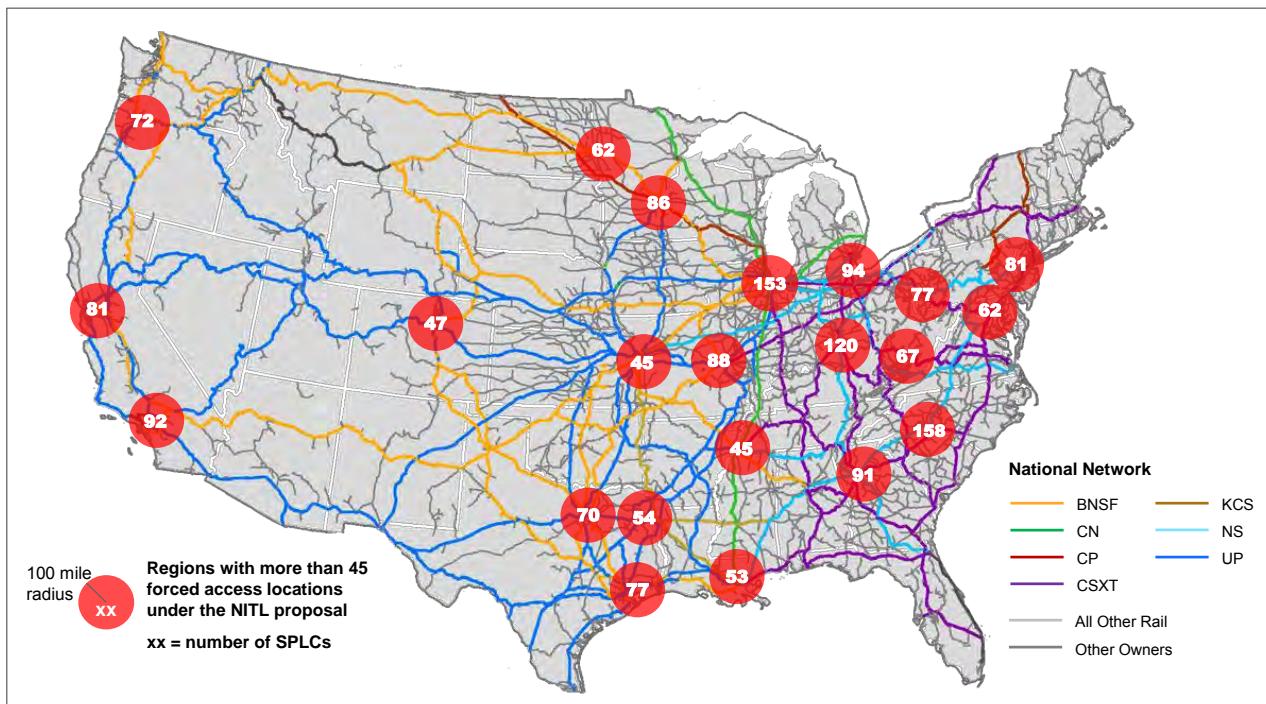
High-density segments of a highway network can still operate under normal conditions, but as the ratio of traffic volume to available network capacity increases, the network becomes more vulnerable to, and has less ability to recover from, disruptions. Even small perturbations can cause gridlock. Similarly, for the rail network, adding more interchanges to a system that already involves frequent trains of different types moving between multiple points (customers, serving and classification yards, interchanges, main lines) will have ripple-through impacts on efficiency and traffic flows. When those potential changes are concentrated in areas originating and terminating large volumes of traffic, the potential for cascading effects from relatively small shifts can be greatly magnified.

As shown in Exhibit VII-3, I identified 22 regions in the United States that include 45 or more cities and towns with potential forced access locations.⁸⁰ These 22 regions account for half of potentially directly impacted traffic (approximately 7.5 million of 15 million loaded and empty cars annually).⁸¹ All of the major east-west rail gateways are included in the 22 regions, as are most major US cities. Rail lines in these regions also support critical energy producing regions (e.g., oil shale areas in North Dakota, Gulf Coast oil refineries). Maintaining fluidity in these 22 regions and across the remaining rail network is not only important in the case of handlings of cars directly impacted by the NITL proposal, but in the handling of all cars moving throughout the rail system. As directly impacted cars wait in yards, or on sidings, or on storage tracks for handling between railroads, they consume system capacity and indirectly impact all remaining cars as they move through the network. Finally, it is important to understand that by exposing multiple points on the rail network to potential disruption at the same time, the chances that local congestion will reach the tipping point and spread to other terminals and regions increases. Furthermore, such congestion can and will affect connecting carriers and their shippers.

⁸⁰ The “locations” are based on 6-digit SPLCs, which identify cities and towns. Within each city or town, there can be one or multiple freight stations (FSACs) where rail traffic is originated and/or terminated. See the statement by Michael Baranowski of FTI in this proceeding for more details.

⁸¹ FTI data, Oliver Wyman analysis.

Exhibit VII-3: Regions Most Susceptible to Service Breakdowns under the NITL Proposal⁸²



B. The NITL Proposal Would Reverse Progress in Railroad Efficiency and Reliability

The 7.5 million loaded, and the corresponding 7.5 million empty, annual railcar trips that potentially would be directly impacted by the NITL proposal amounts to over 41,000 car originations every day. It is likely that not all shippers would choose to invoke forced access if it were available, but even if only 25 percent of cars were diverted to another railroad, this would impact 3.8 million annual car trips, or more than 10,000 originating cars every day of the year.⁸³

A conservative 25 percent diversion rate (3.8 million loaded and empty annual car trips), is used as an illustrative example throughout this section to demonstrate the potential impacts of forced access on the railroad industry, in particular that the NITL proposal will undo many of the efficiency gains the rail industry has achieved over the past several decades.

⁸² "National Rail Freight Infrastructure Capacity and Investment Study," Cambridge Systematics, September 2007, Figure 4.1 for base railroad map; FTI analysis of 2010 STB Carload Waybill Sample to establish locations of potential forced access under the NITL proposal; Oliver Wyman mapping of locations.

⁸³ Oliver Wyman analysis.

As described in Exhibit III-1 above, eliminating interline movements and reducing average interchanges per car trip have been important drivers of railroad efficiency and reliability. In 1972 (pre-Staggers Act), 52.1 percent of loaded rail trips moved in interline service. Through streamlining of operations, this percentage had been reduced to 22.6 percent by 2010. Similarly, in 1972, a loaded car moving from an origin to a destination was interchanged to another railroad 0.86 times on average. By 2010, this had dropped to 0.28 times.⁸⁴

Under the NITL proposal, given a 25 percent diversion scenario, an additional 1.6 million loaded cars that had moved in local service would now be interlined (0.3 million of the total 1.9 million diverted loaded cars were already moving in interline service). This would increase the amount of interline traffic to 30.6 percent, nearly equal to the level of interline traffic in 1990.⁸⁵ The average number of interchange events per car would rise to 0.39 per trip, equal to the level some 15 years ago (Exhibit VII-4).⁸⁶ The NITL proposal would essentially reverse nearly two decades of investment and network operating and reliability improvement, by returning the rail industry to levels of interchange last seen in the 1990's. This is shown graphically in Exhibit VII-5, where "Under Forced Access" is defined as the estimated impact on the railroads of a 25 percent diversion of cars to alternative railroads, as would occur under the NITL proposal.

⁸⁴ Values are from the AAR analysis (EP711-Interchanges-1972-2011.xlsx) for non-intermodal cars. Source: Freight Commodity Statistics.

⁸⁵ Oliver Wyman analysis.

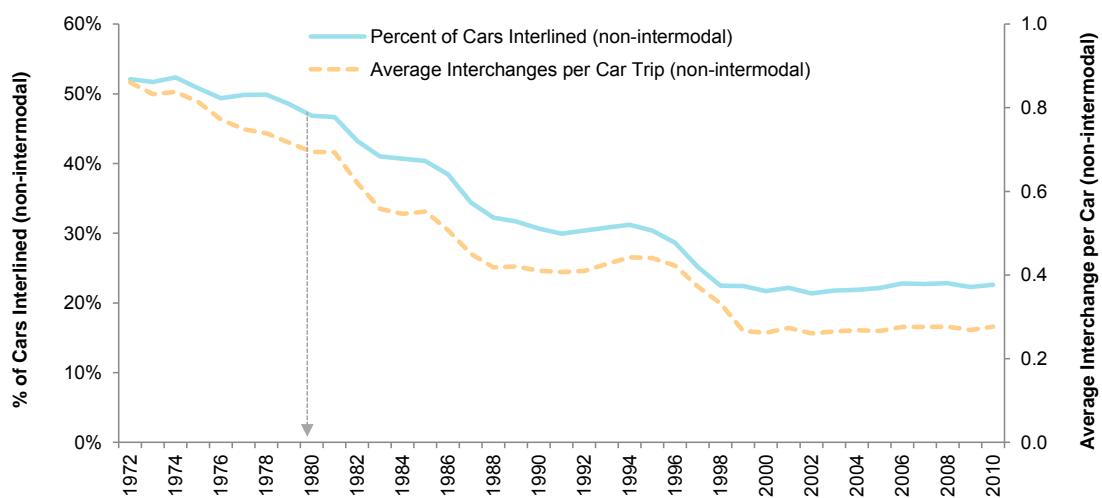
⁸⁶ Oliver Wyman analysis.

Exhibit VII-4: Historical Interchange Levels and Impact of Forced Access⁸⁷

| Year | Cars Originated (millions) | Number of Interchange Events (millions) | Average Interchanges per Car |
|--------------------------|----------------------------|---|------------------------------|
| 1996 | 18.31 | 7.74 | 0.42 |
| 1997 | 18.10 | 6.74 | 0.37 |
| 1998 | 18.53 | 6.15 | 0.33 |
| 2010 | 19.40 | 5.37 | 0.28 |
| 2010 under forced access | 19.40 | 7.53 | 0.39 |

Exhibit VII-5: Percent of Carload Traffic Interlined and Avg. Number of Interchanges per Car⁸⁸

“Under Forced Access” is an estimate of the value in year 2010 if the NITL proposal had been implemented



Exhibits VII-4 and VII-5 both illustrate the continual efforts made by the rail industry to simplify operations by reducing both interline traffic and the number of interchange events. These two exhibits, and subsequent exhibits in this section, display two alternative sets of values for the year 2010: the first set are actual historical values; the second set are estimated values for 2010 if the NITL proposal had been in effect and the railroads had experienced a 25 percent diversion of cars due to forced access.

⁸⁷ “2010 under forced access” assumes 25 percent traffic diversion rate for impacted areas. Oliver Wyman analysis. Numbers are rounded.

⁸⁸ Oliver Wyman analysis.

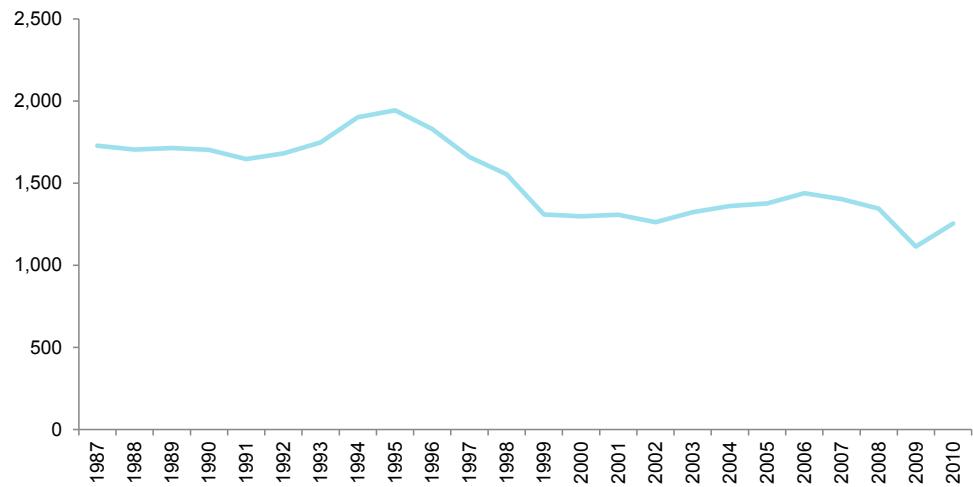
Inserting new interchanges through forced access will slow transit time in at least two ways. First, additional hand-offs will increase planned transit time by one day per interchange event, and as shown in Exhibit V-8, an interline move can have two to four additional interchange events per loaded car trip. The second way that transit time will slow is that service failures, and therefore service delays, will also increase. Exhibit VII-6 summarizes the change in the estimated number of service failures due strictly to an increase in the number of interchanges. In 2010, when there was an average of 0.277 interchanges per railcar trip, there was a 0.973 probability of making the connection, versus 0.956 in 1987. This is a significant reliability improvement, especially when considering there were over 29 million carloads originated in 2010.⁸⁹ Under the NITL proposal, the likelihood of a service failure due to a missed interchange increases from 2.15 percent to 2.84 percent, a 33 percent increase. This translates into an additional 416,000 loaded and empty cars missing their connections.⁹⁰ Besides adding one or more days to the transit time for the car, missed connections mean the car will sit in a yard longer, consuming yard capacity and increasing average terminal dwell, which in turn will affect other cars in the yard. An increase in terminal dwell is considered throughout the industry to be a leading indicator of congestion.

⁸⁹ Railroad Fact Book, 2012 edition, op. cit., p. 25.

⁹⁰ Oliver Wyman analysis.

Exhibit VII-6: Service Failures Due to the Probability of a Car Missing an Interchange, 1987-2010⁹¹

000, loaded and empty cars



Additional handlings and service failures not only have a negative impact on the railroads, but also negatively impact shippers, both those who choose to invoke forced access and those who do not. Shipper impacts include additional inventory carrying costs, the need for additional levels of safety stock, and the need to increase fleet size if they privately own railcars:

- As noted above, an interline movement might add two to four additional interchanges, each taking an additional day of transit time. Those additional days represent days that products are not on store shelves or input materials are not available for use in a plant, increasing the inventory carrying costs of those goods.
- An increase in service failures adds additional uncertainty to the supply chain, which means that a shipper must store additional safety stock to maintain the same probability of not running out of supply before the next shipment arrives.

⁹¹ Freight Commodity Statistics, 1987-2010, AAR, Oliver Wyman analysis. Note: 2010 under NITL proposal assumes 25 percent traffic diversion rate for impacted areas.

- Finally, for private railcar owners, the additional delay from both extra interchanges and increased service failures will reduce the number of loaded trips a car can make in a year, thus requiring an increase in fleet size.

C. The NITL Proposal Would Reverse Progress in Railroad Productivity

Besides reducing the quality of service and increasing the number of service failures, forced access will reverse railroad productivity gains. In this section, I explore the impacts of changes in productivity using two methods:

1. Examine the overall productivity of the rail industry, and the impact of a change in total productivity due to the NITL proposal
2. Examine selected individual components of productivity, and the impacts of reductions in each productivity measure due to the NITL proposal

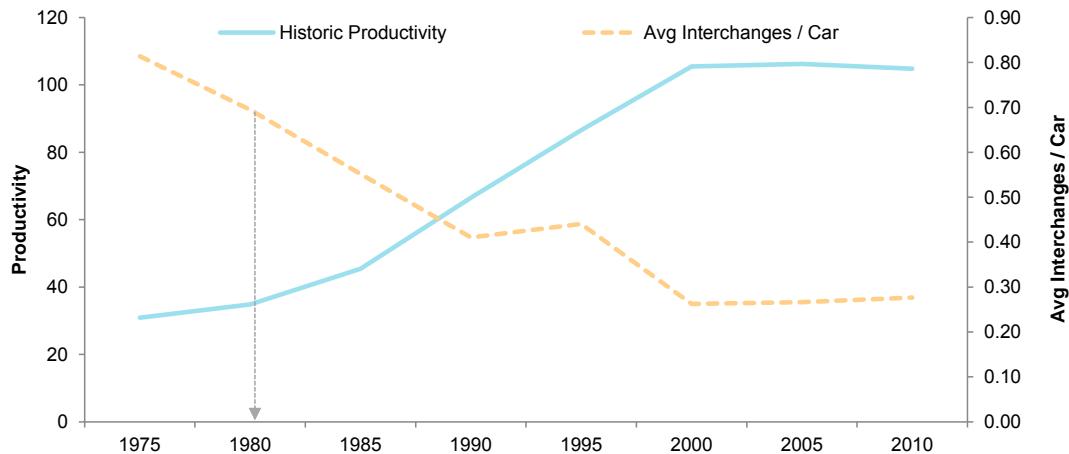
Both methods assume a 25 percent shift of traffic to a new carrier under forced access, which will set the rail industry back to 1996 to 1998 levels with respect to the number of interchanges, as was illustrated in Exhibit VII-4.

Exhibit VII-7 shows the impacts on overall railroad productivity if railroads had to operate under similar interchange percentages as in 1996 through 1998. It is important to note that the introduction of 4.3 million additional loaded and empty car interchanges into the system (based on a 25 percent diversion scenario) would not just impact the cars and shippers involved, but the productivity of the entire network, as has been discussed throughout this statement. In Exhibit VII-7, productivity is defined as revenue ton-miles divided by operating expense. For 2010, the railroads had a productivity level of 105. Rolling this back to 1996-1998 levels, when operating

expenses had to cover additional interchanges and interline traffic, yields an estimated productivity value of 97 for year 2010 under forced access, a decline of 7.1 percent.⁹²

Exhibit VII-7: Average Interchanges per Railcar vs. Productivity, 1975-2010⁹³

Productivity = revenue ton-miles/\$ of inflation-adjusted operating expense
Correlation coefficient between productivity and average number of interchanges = -0.95



The second method for examining the impacts of declines in productivity is to break productivity down into several different key components. For the purposes of my analysis, key productivity measures were selected based on the following:

- Coverage of areas where the railroads have made productivity improvements⁹⁴
- The productivity measure was impacted by the average number of interchanges per car, and would therefore be impacted by forced access.
- The productivity measure has a direct impact on the resources required by the railroads to run their operations.

⁹² Revenue ton-miles and operating expenses are from the Rail Fact Book for each year, AAR, pp. 29 and 14, respectively. The operating expenses were adjusted based on the CPI index obtained from the U.S. Bureau of Labor Statistics at <ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>.

⁹³ Rail Fact Book, 2012 edition, op. cit., pp. 14 and 27 (opex and RTM); AAR email (avg. interchanges); CPI, ibid.; Oliver Wyman analysis.

⁹⁴ 1987 is used as a starting year throughout this section, driven by data availability. Electronic versions of R-1 operating data were available from the AAR starting in 1987.

Each of the productivity measures was compared to the total number of cars interchanged over a 24 year period, and a correlation coefficient was calculated. The correlation coefficient provides an indication of the influence that the number of interchanges has on the productivity measure. For example, the number of cars originated per mile of yard track has a -0.77 correlation with the number of cars interchanged. Although there are several factors that influence how many cars can be originated per mile of yard track, the number of interchanges would appear to have a strong negative impact. This intuitively makes sense; more interchanges require more yard work, which in turn requires more use of yard track.

The productivity measures are then rolled back to an average value for 1996 through 1998, which is the time frame when the railroads saw a similar number of interchanges per car as would occur under the NITL proposal, as illustrated in Exhibit VII-4.

The first productivity measure I analyzed was the total number of carloads originated per mile of yard switch track. As railroads have simplified operations by closing yards and reducing handlings over time, the amount of yard track necessary to process cars has declined, and subsequently the number of carloads originated per mile of yard track has steadily increased (except during the recession of 2009), from 557 carloads in 1987 to 1,304 in 2010.⁹⁵ The two lines shown in Exhibit VII-8 below, the number of loaded interchanges and cars originated per mile of yard track, are negatively correlated (-0.77), indicating that as the number of interchanges increases per car originated, more yard track will be necessary, which would reverse some of the yard productivity gains made by the railroads.

⁹⁵ The reduction in yard track also makes it more likely that congestion and missed connections will increase if traffic is diverted through forced access.

Exhibit VII-8: Originated Carloads per Mile of Yard Track versus Interchanges per Railcar, 1987-2010⁹⁶

Carloads = Class I, loaded, non-intermodal

Correlation coefficient for carloads originated / mile yard switching track and loaded interchanges = -0.77

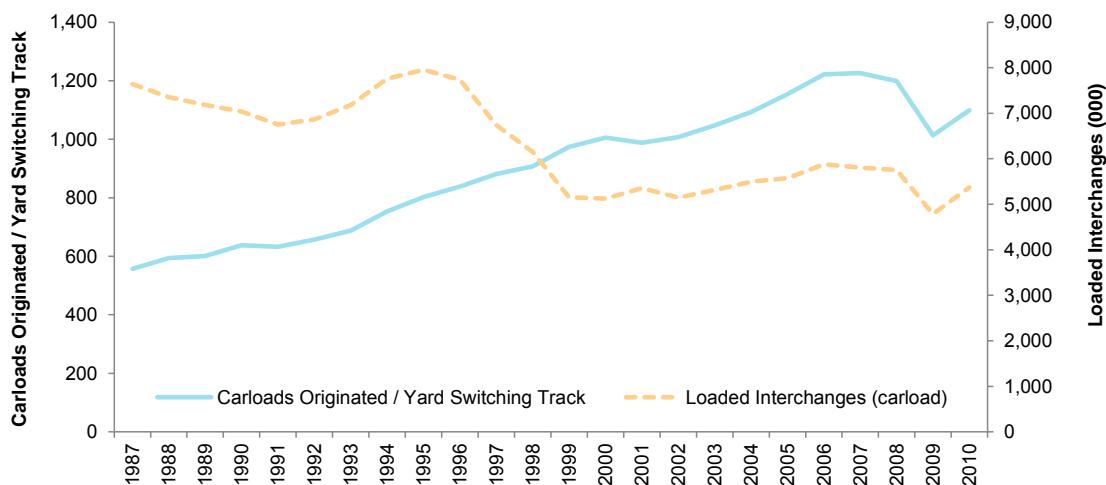


Exhibit VII-9 provides an indication of network efficiency by examining the number of trips an average railcar makes in one year. This measure incorporates components of train velocity and yard dwell time. In 1987, a railcar averaged 16.8 trips per year; by 1997, this had climbed to 19.7 trips per year. The number of trips per car per year has been trending upward (except for the recession of 2009), reaching an average value of 21.8 trips per year in 2010 – an increase of 30 percent over 1987. In a forced access environment, the average trips a car would travel in a year would decline by 2.2, to 19.6 trips per year – the same performance realized some 15 years ago.⁹⁷ The two lines shown in Exhibit VII-9, the number of loaded interchanges and the trips per car per year, are negatively correlated (-0.64), indicating that as the number of interchanges increases for a given traffic volume, car utilization declines. This also impacts locomotive utilization, since more locomotives will be required to switch these additional cars, and in some cases, more locomotives may also be required for the line haul movement of these cars.

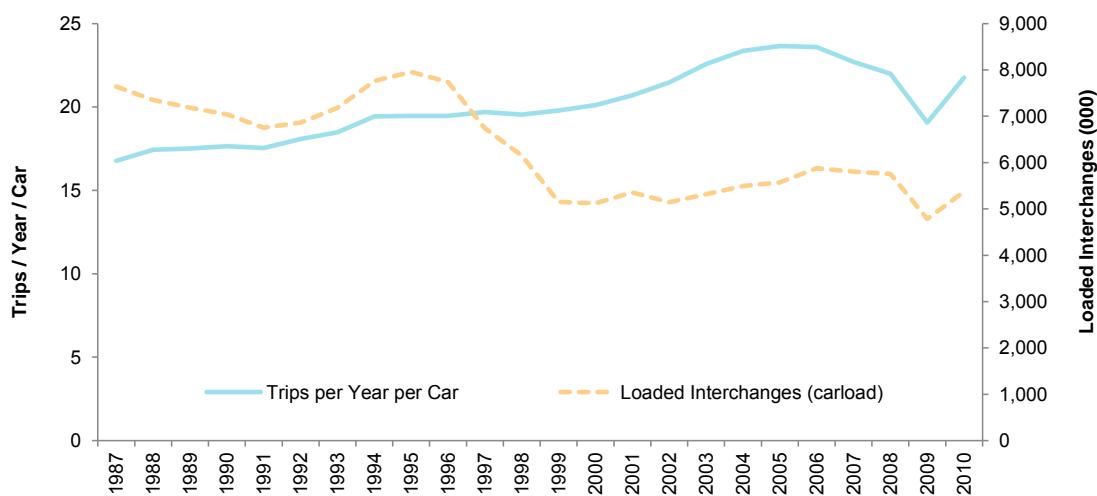
⁹⁶ Freight Commodity Statistics, 1987-2010, op. cit.; R-1's for Class I railroads, all years, Schedule 700, Column H (data compiled by the AAR); Oliver Wyman analysis.

⁹⁷ The 2010 under forced access estimate is based on the average trips per year from 1996 through 1998, a time period with a similar number of interchanges per railcar, thus requiring railcars to spend more time in yards.

Exhibit VII-9: Trips per Year per Car vs. Interchanges per Railcar, 1987-2010⁹⁸

Miles per day = Class I and other railroads, loaded, all traffic

Correlation coefficient for trips per year per car and loaded interchanges = -0.64



Miles of yard track per yard staff, Exhibit VII-10, is a measurement of the productivity of yard staff. Through simplified yard operations, consolidation of rail yards, and improved communications and computer systems, fewer yard staff are required to manage yards of similar size. In 1987, there was 1.1 mile of yard track for every yard employee, versus 1.7 miles by 2010. Under the 25 percent diversion scenario, additional car handlings and interchanges would reduce the number of miles of yard track per yard employee to an estimated 1.3, the same level as nearly 15 years ago.⁹⁹ The two lines in Exhibit VII-10, the number of loaded interchanges and the miles of yard track per yard employee, are negatively correlated (-0.72), indicating that the number of interchanges is likely a component of yard employee productivity.

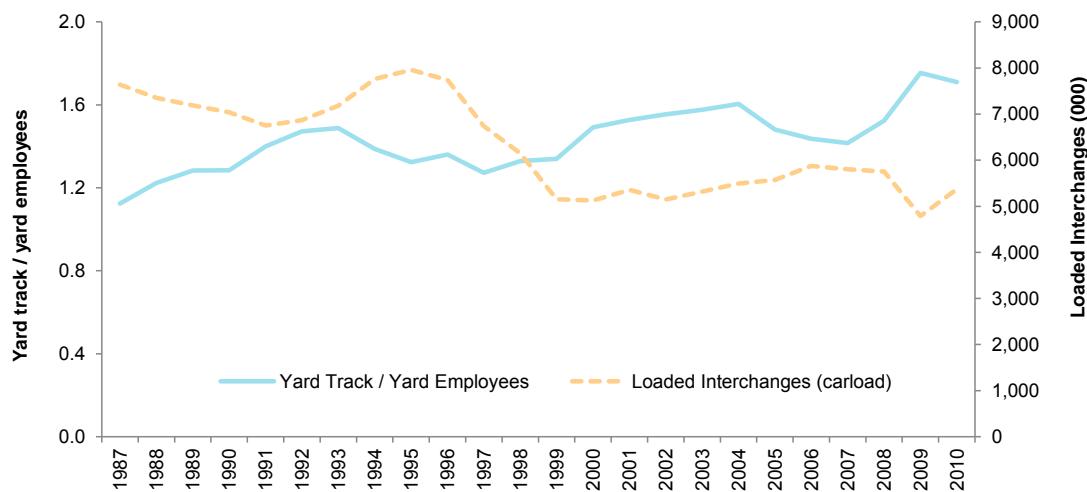
⁹⁸ Freight Commodity Statistics, 1987-2010, op. cit.; Rail Fact Book, 1989, 2004, and 2012 editions, AAR, p. 51; Analysis of US Class I Railroads, 1987-2010, op. cit., lines 41, 75, and 85. Carload Waybill Sample, 1987-2010, Surface Transportation Board, selected totals as provided by the AAR; Oliver Wyman analysis. Note: 2010 under NITL proposal assumes 25 percent traffic diversion rate for impacted areas.

⁹⁹ The 2010 forced access estimate of 1.3 was obtained from averaging 1996 through 1998 values.

Exhibit VII-10: Switch miles per Yard Staff vs. Interchanges per Railcar, 1987-2010¹⁰⁰

Switch miles = Class I, loads plus empties, all traffic

Correlation coefficient for trips per year per car and loaded interchanges = -0.72



Productivity of train and engine (T&E) employees also has been steadily increasing over the years. In Exhibit VII-11, the number of loaded cars originated divided by the number of T&E employees has increased by over 60 percent from 1987 to 2010 – from 297 loaded cars/employee in 1987 to 477 in 2010. Due to the additional work required by a forced access environment, the number of cars that would be processed per T&E employee would decline to 414 loaded cars, the same level as 15 years ago.¹⁰¹ The two lines in this graph, the number of loaded interchanges and the cars originated by T&E employee, are negatively correlated (-0.78), indicating that the number of interchanges is a likely component of T&E employee productivity.

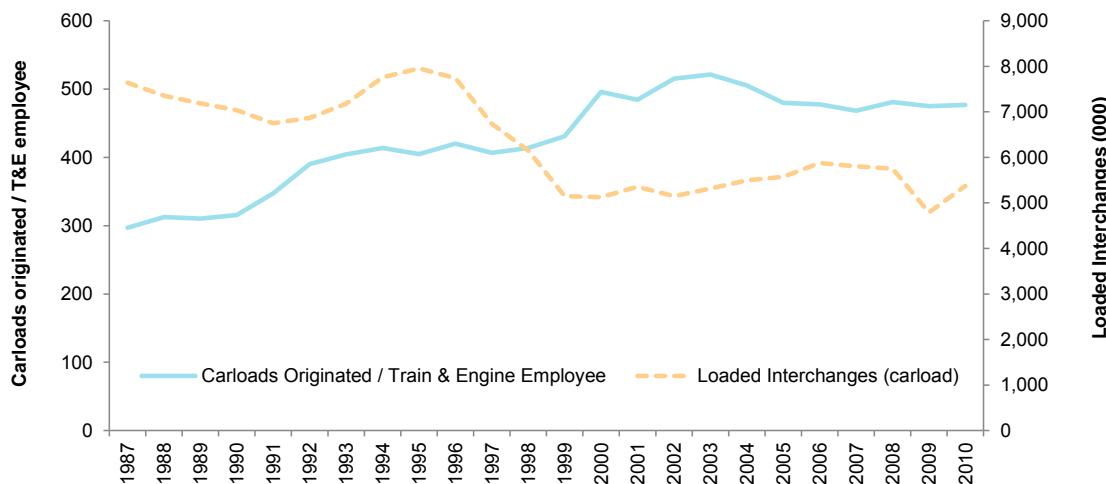
¹⁰⁰ Freight Commodity Statistics, 1987-2010, op. cit.; Analysis of US Class I Railroads, 1987-2010, op. cit., lines 207 and 333; FRA Safety Data website (<http://safetydata.fra.dot.gov/officeofsafety/publicsite/Query/rrstab.aspx>, accessed February 6, 2013); Oliver Wyman analysis. Note: 2010 under NITL proposal assumes 25 percent traffic diversion rate for impacted areas.

¹⁰¹ Estimate for 2010 under forced access is based on averaged 1996 through 1998 values for loaded cars originated per T&E employee.

Exhibit VII-11: Carloads per T&E Employee vs. Interchanges per Railcar, 1987-2010¹⁰²

Carloads = Class I, loaded, all traffic

Correlation coefficient for trips per year per car and loaded interchanges = -0.78



As the exhibits above indicate, the railroads have improved their productivity across yards, rolling stock, and employees. The NITL proposal would roll back the clock on these improvements, returning the industry to a level of productivity last seen in the mid-1990's. Given the 28 percent more traffic the railroads haul today versus 15 years ago, a reduction in productivity to this level will not only impact railroad costs but undoubtedly affect service and reliability for many shippers.¹⁰³

While I have not estimated the cost of providing the additional resources that would be required to accommodate forced access as proposed by the NITL, it clearly would be measured in billions of dollars of additional operating expense. Since there would be no additional revenue produced by forced access, all of the additional operating expenses would fall to the bottom line, reducing the net income available to the railroads to invest in plant and equipment. Moreover,

¹⁰² Freight Commodity Statistics, 1987-2010 and Analysis of US Class I Railroads, 1987-2010, lines 299 and 333, op. cit.; Oliver Wyman analysis. Note: 2010 under NITL proposal assumes 25 percent traffic diversion rate for impacted areas.

¹⁰³ Percent change in Class I railroad revenue ton-miles from 1997 to 2011. Source: Rail Fact Book, 2007 and 2012 editions, AAR.

additions to physical plant and equipment required to accommodate forced access would add to the railroads' capital investment requirements.

D. The NITL Proposal Would Impair Operations, Which In Turn Could Lead to Widespread Service Problems

As I have discussed, implementation of the NITL proposal would lead to changes in historic traffic flows and service patterns, impose inefficiencies in operations, and degrade service. Such consequences would be serious even if limited in scope and location. Railroads, however, are a network industry and history provides several examples of local service disruptions spreading to other locations on the railroad network, including connecting railroads. Examples of this phenomenon include service problems that occurred in the Western United States in 1997 (which began as congestion in Southern Pacific's Houston yards), the problems associated with the integration of Conrail into Norfolk Southern and CSX in 1999, and the impact of the traffic boom during the middle of the last decade.

Southern Pacific Service Problems

Beginning in 1997, during the merger of UP and SP, a congruence of events caused congestion in SP's Houston terminal to spread to the UP and their connecting railroads, leading to widespread service problems in the Western United States. Customers began shifting traffic away from SP's weakened infrastructure to UP, before UP began implementing the merger in that territory, particularly as there had been a surge in chemical traffic. Compounding that challenge was a combination of weather events, a series of accidents, and maintenance curfews imposed by another railroad on the line to New Orleans, which trapped eastbound trains in Houston's Englewood Yard.

Implementing a merger requires negotiating labor agreements, cutting over to complex computer systems, and consolidating operating rules and training employees before merger benefits, such as directional running, can be realized. Before UP could implement the merger and restore normal service, the Houston congestion had increased car inventories to unacceptable levels, consuming locomotives, crews, and terminal capacity throughout the UP network and causing backups and delays on connecting railroads.¹⁰⁴

Examples of how the Houston terminal congestion eventually led to a service breakdown degrading service to shippers in the West¹⁰⁵ include:

- At the height of the crisis, more than 500 trains sat on sidings, some for as long as a week, while freight car movements were delayed up to 50 days. At the Port of Long Beach near Los Angeles, UP had a backlog of more than 5,000 containers waiting to be loaded onto outbound trains.¹⁰⁶
- In the garment manufacturing and retail industry, “The UP meltdown affected freight shipments up and down the apparel pipeline, from chemical and fiber makers who couldn't move raw materials to spinning plants, to garment manufacturers and retailers who sweated out holiday delivery windows waiting for container trains to wend their way through gridlock of unprecedented proportions.”¹⁰⁷

¹⁰⁴ FD 32760 (Sub-No. 26) UP-Control-SP [Houston/Gulf Coast Oversight] Decision No. 10 slip op. at 21-22 (Dec. served 12/21/1998).

¹⁰⁵ Ibid., at 6. (“During the summer and fall of 1997, prior to UP's implementation of the merger in Texas, UP and SP lines in and around Houston became severely congested, leading to a lengthy and damaging service breakdown dramatically affecting rail transport throughout the West.”)

¹⁰⁶ “Shippers Face Rough Ride on Rails,” Women's Wear Daily, Feb. 24, 1998.

¹⁰⁷ Ibid.

- General Motors noted that the UP/SP transaction “caused an unprecedented degree of disruption, uncertainty and cost for GM, in both inbound and outbound transportation.”¹⁰⁸ As an example of a particular case, it noted that it was unable to secure sufficient US-Mexico cross-border rail service for finished vehicles, and had to resort to ocean-going vessels to move vehicles through East Coast ports, at a premium cost of \$20 million.

Forced access as proposed by NITL poses a threat that local congestion could spread to other locations and other carriers. A key difference, however, is that UP was able to restore fluid operations because it was able to implement an operating plan that it developed and controlled. In contrast, the NITL proposal would grant to hundreds of shippers the perpetual ability to disrupt operations without familiarity or understanding of the impact on network fluidity.

Conrail Integration Service Issues

Despite years of advance planning that involved the railroads, the Federal Railroad Administration, and the STB, service disruptions were widespread following the integration of Conrail into NS and CSX. Chemical manufacturers reported that “problems on CSX were focused in the Pittsburgh, Albany, NY, and Atlanta areas, as well as shipments through Kansas City and from Texas to Pittsburgh. Problem areas on NS spanned 20 locations, including six in Ohio and two each in Indiana and New York State. Problems also were reported in Alabama, Tennessee, Maryland, Pennsylvania and Michigan.”¹⁰⁹ Grain transportation was adversely impacted by the Conrail integration, with reports of “grain piling up in outdoor heaps at elevators across Ohio and Michigan.”¹¹⁰ A grain manager for Blanchard Valley, an elevator operator in Ohio, noted for example that five months after the merger, trains were running two to three

¹⁰⁸ STB Ex Parte No. 582, Public Views on Major Rail Consolidations, General Motors Corporation Statement on Rail Consolidation (Attachment to the Prepared Statement of Richard K. Davidson, Chairman and CEO, Union Pacific Corporation, Before Senate Hearing 106-1098, March 23, 2000.

¹⁰⁹ “Chemical Group Slams NS, CSX,” JoC Week, July 9, 1999.

¹¹⁰ “Delays Cause Pileup of Grain at Midwest Elevators,” JoC Week, November 12, 1999.

weeks late, requiring the company to cover the cost of extra handling for 1 million bushels of grain stored outdoors.¹¹¹ UPS noted that it was “forced at times to divert up to 50% of the traffic, previously handled on the rails by Conrail, to trucks.” In addition to shifting trailers from rail to road, UPS had to hire subcontractors to drive trucks and extend its sorting operations hours; as a result, “the cost to UPS of providing service during a rail merger soared dramatically.”¹¹²

While planners can project how the adoption of the NITL proposal *might* affect specific locations on the railroad network, and the network as a whole, no one knows what will happen for certain. That is the critical point: adoption of the NITL proposal could create conditions similar to those in the past that have led to widespread service disruptions.

Even when railroads have had advance knowledge of changes in traffic and service patterns, as in the case of previous mergers, they at times have been unable to avoid serious service problems. In the case of the NITL proposal, changes in traffic patterns, and the resulting changes in service patterns, cannot be known in advance and will be triggered by shippers who have no way of knowing how their individual decisions will affect the railroad network. Moreover, in the case of prior service breakdowns, the railroads retained the ability to adjust their operating plans to reduce car inventory and restore system velocity and thus end the service problems. Under the NITL proposal, however, the railroads’ ability to control their operating plans and to eliminate avoidable work events would be materially diminished; instead, the power to disrupt carefully designed network plans would be assigned to shippers at hundreds of locations who could exercise this power whenever they chose. This would make it both more likely for congestion to spread and make it more difficult for the railroads to regain control.

¹¹¹ Ibid.

¹¹² STB Ex Parte No. 582, Public Views on Major Rail Consolidations, Summary of Statement on Behalf of United Parcel Service, Inc. (Attachment to the Prepared Statement of Richard K. Davidson, Chairman and CEO, Union Pacific Corporation, Before Senate Hearing 106-1098, March 23, 2000).

VERIFICATION

I, William J. Rennicke, declare under penalty of perjury, that the foregoing statement is true and correct and that I am qualified and authorized to file this statement.

Executed: March 1, 2013



William J. Rennicke

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Ex Parte No. 711

**PETITION FOR RULEMAKING TO ADOPT REVISED
COMPETITIVE SWITCHING RULES**

**REPLY COMMENTS OF THE
ASSOCIATION OF AMERICAN RAILROADS**

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Verified Statement of Mark Fagan

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The Association of American Railroads (“AAR”) submits these reply comments in response to opening comments filed in the above-captioned proceeding by the National Industrial Transportation League (“NITL”), several individual shippers and shipper associations, the United States Department of Transportation (“USDOT”), the United States Department of Agriculture (“USDA”), and the UTU-NY. AAR filed opening comments in this proceeding on March 1, 2013.

L. Introduction and Summary

The Board should deny the NITL Petition¹ and discontinue further consideration of NITL’s proposal. The Board initiated this proceeding because it did not have the information necessary to determine whether NITL’s proposal for a new mandatory switching regime was in the public interest. The Board now has the information it needs to conclude that adoption of the NITL proposal would not be in the public interest. AAR and its member railroads have demonstrated that adoption of the NITL proposal would have serious consequences for shippers and railroads alike. Parties who support the NITL proposal have demonstrated only that they

¹ *Petition for Rulemaking of the National Industrial Transportation League* (filed July 7, 2011) (“NITL Petition”).

seek a massive annual wealth transfer from railroads to a subset of shippers that would result in no public benefit. Indeed, such a wealth transfer would risk substantial public harm.

The Board could not possibly conclude on the record created in this proceeding that it has any reason to move forward and propose switching rules based on the NITL proposal. Most commenters did not even attempt to develop an analysis of the proposal's potential impact. Some commenting parties (*e.g.*, USDA, National Grain and Feed Association²) chose to look only at the impact of the NITL proposal on limited segments of the rail freight sector. NITL, the leading proponent of mandatory switching, sought to create the false impression of a limited impact on railroads and on the rail network by ignoring fundamental elements of its own proposal. USDOT excluded from its analysis certain categories of traffic that the NITL proposal appears to cover on its face and that NITL included in its own analysis. AAR and its member railroads are the only commenters that tried to assess the impact of the actual rule changes that NITL proposed, and AAR's evidence does not support further proceedings.

As AAR explained in its opening comments, several factors make developing more than a rough estimate of the scope and impact of the NITL proposal impossible, including severe limitations in the available data, complex operating issues that vary from location to location, the inherent uncertainty in predicting how markets and market participants would react to substantial changes in regulation, and the lack of any basis for determining access prices. Notwithstanding the uncertainties inherent in predicting the outcome of the NITL proposal, AAR's evidence showed that the NITL proposal could affect a large percentage of the carloads handled by Class I

² Joint opening comments were filed by the National Grain and Feed Association, the Agricultural Retailers Association, National Barley Growers Association, USA Rice Federation, National Oilseed Processors Association, the National Chicken Council, National Association of Wheat Growers, National Council of Farmer Cooperatives, and National Corn Growers Association. These comments are referred to hereafter as the "NGFA Joint Comments."

railroads. AAR also showed that the disruptions and inefficiencies that would result from mandated switching have the potential for creating serious operating problems and degrading service to all rail customers. None of the supporters of NITL's proposal even attempted to examine the operating and service impacts of NITL's proposal on the rail network. The broad potential scope of the NITL proposal and the risk of a serious degradation of rail service throughout the rail network are more than sufficient reason to deny the NITL Petition and discontinue any further consideration of the NITL proposal.

NITL admits that mandated switching would be inefficient but claims that the Board need not worry because incumbent railroads would reduce their rates to retain traffic eligible for switching and thereby avoid the adverse impact of service by a less efficient alternative carrier. The public interest would not be served by taking the risk of a serious degradation in rail service based on NITL's wishful thinking. Shippers would not be vigorously seeking mandated switching if they did not intend to make full use of the new switching options. Indeed, NITL would have no basis for assuming a dramatic reduction in rail rates if the prospect of expanded switching was just an empty threat.

Moreover, NITL's acknowledgement that mandated switching, if it occurs, would add inefficiency to the U.S. rail network raises a serious question. It would be a perverse exercise of regulatory power to adopt a rule that is inefficient and potentially risky as a backdoor way to force railroads to reduce their rates when the statute already provides explicit protections against unreasonably high rates. The Board should be concerned about promoting conduct that will enhance efficiency, not degrade it.

The public interest would also not be served by adopting regulations expected to provide rate reductions to a sub-group of shippers at the expense of all other shippers. The commenting

shippers recognize that the impact of NITL's proposal would be focused on a limited group of favored shippers, as reflected in the lukewarm support for the proposal among grain and coal shippers. AAR pointed out on opening that the NITL proposal would have the adverse consequence of creating winners and losers among shippers. NITL claims that the shippers able to take advantage of mandated switching would receive massive rate reductions. This would give the favored shippers a significant competitive advantage over their disfavored competitors. The artificial rate reductions that some shippers would obtain under the NITL proposal would allow those favored shippers to take market share away from other shippers that would not be covered by the new rule. In addition, shippers that are not covered by the new rule would suffer the adverse service consequences of inefficient switching being carried out for the favored shippers, and they would also experience an overall decline in the quality of rail service that would result from siphoning off rail revenues that would otherwise go toward improving and expanding the rail network. Disfavored shippers would in effect be paying for the benefits conferred on other shippers who, in many cases, are competitors of the disfavored shippers.

The record reveals no public benefits from adopting the NITL proposal that would offset these adverse consequences. The shipper commenters offer no justification for mandated switching other than their desire for reduced rates. Although couched as a form of "enhanced competition," the NITL proposal is not designed to generate public benefits such as enhanced efficiency or expansion of service that would be produced by genuine, market-driven competition. The NITL proposal is designed to transfer wealth from the railroads to a subset of shippers able to take advantage of the proposed rule. There is no affirmative rationale for adopting NITL's proposal, and indeed, the loss of revenue from the wealth transfer would seriously affect railroads' ability to maintain and expand the railroad network through capital

investments. The lack of any showing of public benefits from the NITL proposal, as opposed to a wealth transfer that would harm the public interest, should be fatal to that proposal.

AAR's reply evidence and argument is supported by verified statements from the following witnesses:

- Michael R. Baranowski and Richard W. Brown of FTI Consulting address NITL's approach to estimating the number of carloads potentially eligible for mandated switching. Messrs. Baranowski and Brown describe the various methodological choices made by NITL when identifying carloads. They show that NITL's choices are inconsistent with NITL's own proposal and produce a dramatically understated estimate of the impact of the NITL proposal.
- B. Kelly Eakin and Mark E. Meitzen of Christensen Associates point out that the comments of various parties on opening confirm that NITL's proposal would create winners and losers among shipper groups by conferring a competitive advantage on favored shippers who could obtain mandated switching at the expense of disfavored shippers who could not. They also demonstrate that NITL's estimate of revenue impacts is unreliable and that adopting a cost-based approach to access pricing would lead to market distortions. In addition, Messrs. Eakin and Meitzen describe the flaws in NITL's claim that the NITL proposal would produce an increase in rail traffic that would offset revenue losses.
- William J. Rennicke of Oliver Wyman, Inc. explains that NITL's assertion that service problems will not result from the NITL proposal is based on nothing but speculation. Mr. Rennicke explains that the public interest would not be served by incurring the risk of service disruptions. He also shows that NITL's financial impact analysis is flawed in several respects and fails to consider the strong public interest in promoting adequate infrastructure investment. Mr. Rennicke also addresses NITL's failure to consider relevant market conditions in speculating that reduced rail rates would lead to significant increases in rail traffic volumes.
- Phil C. Ireland and Rodney E. Case rebut NITL's claim that the Canadian experience with interswitching shows that service in the United States would not be adversely affected by adoption of NITL's proposal. Messrs. Ireland and Case explain that NITL's reliance on Canada's experience with interswitching to predict the impact of mandated switching in the United States is misplaced due to the fundamental differences in the U.S. and Canadian railroad networks. They also address the flaws in NITL's estimate of the frequency of interswitching in Canada and NITL's misleading efforts to apply those flawed calculations to U.S. markets.
- Mark Fagan of Harvard's Kennedy School explains that the supporters of the NITL proposal have failed to apply a meaningful economic framework for evaluating whether regulatory intervention to impose mandated switching is in the public interest. Mr. Fagan presents a framework for assessing the NITL proposal that

involves weighing any possible public benefits, which do not include a simple wealth transfer, against the likely costs, including potentially large coordination costs. He notes that NITL's filings in support of its proposal do not present any reason to believe that the proposal would create any public value as opposed to transferring wealth from railroads to a group of shippers.

II. The Available Evidence Supports Denial of NITL's Petition Seeking Mandated Switching.

The Board initiated this inquiry because it was unable to "fully gauge" the "potential impact" of the NITL proposal. *Petition for Rulemaking to Adopt Revised Competitive Switching Rules*, STB Ex Parte No. 711, slip op. at 2 (served July 25, 2012) ("EP 711 Notice"). Based on evidence provided by NITL in support of its proposed rule, the Board was unable to determine whether the NITL proposal was in the public interest. The Board could not make a public interest assessment without knowing how the NITL proposal would affect railroads, shippers and the rail network. Specifically, the Board noted that NITL had failed to provide data in its original submission concerning "how many shippers would be able to take advantage of mandatory competitive switching." *Id.* The Board explained that "NITL's petition itself . . . does not include detailed evidence or analysis of the likely benefits to shippers that could obtain mandatory switching . . . nor does it address how remaining shippers might be affected." *Id.* at 7. The Board further noted that "[t]he access price would be a significant factor in determining the impact" of NITL's proposal, "but that critical element also was not included in NITL's petition. *Id.* at 2. The Board concluded that "additional information is needed before we can determine how to proceed." *Id.*

In the past, the Board has rejected petitions for rulemaking out of hand when it has concluded that they lacked sufficient information to support institution of a rulemaking

proceeding.³ But the Board decided here that it would give NITL a chance to fill the holes in its petition to permit a reasoned evaluation of the proposal. The Board asked parties to provide not only the data that it had identified as missing from the NITL petition, but to specifically address the “impact on rates and service” for shippers who would not be able to obtain mandatory switching and “the impact on the railroad industry, including its financial condition, and network efficiencies or inefficiencies.” EP 711 Notice at 2.

As explained below, the supporters of the NITL proposal underestimate the impact of NITL’s proposal in many ways and fail to even address the substantial adverse impact that the proposal would have on rail service, other shippers, the rail network and the public interest. The evidence presented on opening comes nowhere close to permitting the Board to conclude, as NITL claims, that its proposal would benefit shippers without harming the railroad industry.⁴ To the contrary, it makes clear that the NITL proposal does not warrant further evaluation.

A. Supporters of the NITL Proposal Have Presented Misleading and Incomplete Information on the Potential Impact of Mandated Switching.

On the question of the scope of the NITL proposal and its potential financial impact on the railroad industry, the supporters of the NITL proposal sought to create the false impression of a minimal impact by disregarding elements of the NITL proposal, analyzing only portions of the traffic that would be affected, and making methodological choices that systematically underestimate the scope of the proposal. Indeed, none of the parties supporting the NITL proposal actually

³ See, e.g., *Petition of the Association of American Railroads to Institute a Rulemaking Proceeding to Reintroduce Indirect Competition as a Factor Considered in Market Dominance Determinations for Coal Transported to Utility Generation Facilities*, STB Docket No. EP 717, slip op. at 7 (served Mar. 19, 2013) (“Market Dominance Rulemaking Petition”) (declining to proceed on the basis that petitioner had failed to present a “practical framework” or resolve “practical difficulties”).

⁴ Opening Submission of the National Industrial Transportation League, at 64 (filed Mar. 1, 2013) (“NITL Comments”).

modeled the impact of the rules that NITL has proposed. Only AAR sought to estimate the scope of the NITL proposal based on the terms that NITL asked the Board to adopt, and AAR's evidence shows that the NITL proposal would have a broad impact, potentially applying to more than one third of the non-intermodal carloads transported by Class I railroads each year.⁵

On the question of the impact of the NITL proposal on service quality and the efficiency of rail operations, AAR and its member railroads were the only parties that presented any real evidence. AAR showed on opening that the NITL proposal could have a severe impact on the quality of rail service. AAR's witnesses show in this reply that NITL's reliance on Canada's experience with an "interswitching" regime that has been a part of the Canadian regulatory framework for 100 years to predict the impact on service from the introduction of a new mandated switching regime in the United States is misplaced. This leaves the supporters of the NITL proposal with no evidence at all on the potential service impact of the NITL proposal. While it is not possible to quantify with precision the magnitude of the negative service impacts, the NITL proposal carries the risk of severe degradation of rail service in areas where congestion already exists and across the network as local problems expand through the rail network.

On the question of potential public benefits, no party presented evidence of any public benefit that would result from the NITL proposal. The proponents of the NITL proposal made no effort to conceal the fact that their objective is simply to obtain lower rates for a sub-group of shippers. They made no effort to show that the shippers who would benefit from the NITL proposal are paying unreasonably high rates or receiving poor service. Their assertions that adoption of NITL's proposal would increase rail traffic are based on pure speculation. The NITL proposal is about nothing more than a wealth transfer to a select group of favored shippers.

⁵ Opening Comments of the Association of American Railroads, at 3 (filed Mar. 1, 2013) ("AAR Comments").

Moreover, the private benefits that would be conferred on the “winners” under NITL’s proposal would come at the expense of service degradation and competitive dislocations for the “losers.”

B. Evidence Submitted in Response to the Board’s Questions Shows that Adoption of NITL’s Proposal Would Not Be in the Public Interest.

The Board sought responses to five sets of questions to enable it to determine whether the NITL proposal was in the public interest. The shortcomings and flaws in the evidence submitted by the parties supporting the NITL proposal on those five questions are addressed below.

1. Board Questions 1 and 2 – Evidence on the Scope of the NITL Proposal

The Board’s first two questions sought information on the “terminals” that would be affected by the NITL proposal and how many shippers would be able to obtain mandated switching under the NITL proposal. None of the commenting parties attempted to identify terminals or terminal locations.⁶ As AAR explained, there is no generally accepted definition of a terminal and there is no available data source that would allow the identification of terminals.⁷ Similarly, none of the commenting parties attempted to identify individual shippers that would be covered by the NITL proposal. All of the commenting parties that attempted to estimate the impact of the NITL proposal acknowledged that the Waybill data cannot be used to identify particular shippers. Accordingly, those parties who submitted any impact analysis sought to address the scope of the NITL proposal based on the number of potentially affected carloads that could be identified from the Waybill Sample.

⁶ NITL’s opening comments contain several pages of extraneous discussion of current reciprocal switching carried on by Class I railroads. NITL Comments, at 19-24. Although NITL’s discussion sometimes incorrectly equates the locations where this reciprocal switching occurs to “terminals,” NITL does not appear to suggest that it is possible to create any list of existing terminal areas. Nor does NITL attempt to address which shippers are located in terminal areas, or which shippers located in such areas do and do not have access to reciprocal switching today.

⁷ AAR Comments at 10-11.

Of the four parties other than AAR who presented evidence on the number of potentially affected carloads – NITL, USDOT, NGFA, and USDA – none developed a credible estimate and all used approaches that substantially reduced the apparent scope of the NITL proposal.

a. NITL Failed to Model the Scope of Its Own Proposal.

The most expansive analysis from any party supporting the proposal appears in NITL's opening comments. NITL used Escalation Consultants to provide an impact analysis and NITL's opening comments include the Verified Statement of Henry Julian Roman ("Roman V.S."), Escalation Consultant's president, as part of its evidence. Although NITL presents the Roman analysis as a comprehensive assessment of the traffic potentially subject to its proposal, NITL made numerous methodological choices that substantially limited the number of carloads that NITL counted as subject to its proposal.

As described in more detail in the reply verified statement of Messrs. Baranowski and Brown ("Baranowski/Brown Reply V.S."), NITL did not even model its own proposal. NITL discloses in a footnote,⁸ that it did not attempt to model the impact of its proposed 75% rule. Under the NITL proposal, a shipper served by a single railroad would be eligible for a mandated switching order if at least 75% of the traffic at issue was handled by the incumbent railroad in the past 12 months. AAR addressed on opening the critical flaws in NITL's 75% rule.⁹

NITL's failure to account for the 75% rule in assessing the potential impact of its proposed rule change fatally undermines the credibility of its impact estimate. The 75% rule

⁸ NITL Comments at 7 n.10.

⁹ As AAR explained, NITL purports to limit mandated switching to situations where there is no effective competition, but the 75% rule says nothing about the existence of effective competition. AAR explained that there are many situations in which a shipper might ship 75% or more of its traffic for a given commodity/origin-destination combination by rail whether or not it has an effective competitive alternative to rail shipments. Moreover, AAR explained that the 75% rule could be easily manipulated by shippers to create the basis for seeking a mandated switching order. AAR Comments at 40-43.

would apply regardless of the R/VC level of the movement at issue. Indeed, AAR explained on opening that the 75% rule would largely eliminate the relevance of the 240% R/VC presumption since there are a large number of movements where a rail carrier serves all or virtually all traffic for a given commodity/origin-destination combination but charges rates below 240%. NITL, however, limited the scope of its evidence to movements with an R/VC of 240% or greater. This approach dramatically reduced the number of carloads that NITL counted as eligible for mandated switching under NITL's proposal.

NITL's exclusive focus on movements with an R/VC ratio of 240% or greater also ignored another important feature of its own proposal. Under the NITL proposal, the 240% R/VC eligibility criteria is used as a presumption to establish the existence of market dominance. But the NITL proposal does not preclude shippers with R/VC ratios below 240% from obtaining mandated switching if those shippers could show a lack of effective competition. There would likely be many cases of shippers served only by a single railroad with R/VC ratios below 240% that could meet the Board's existing market dominance test. NITL's decision to limit its impact estimate to movements with R/VC ratios of 240% or greater therefore makes its impact evidence incomplete.

Messrs. Baranowski/Brown explain that NITL ignored several other elements of its own proposal in an effort to create the false impression that the scope of its proposal would be limited. Baranowski/Brown Reply V.S. at 3-9. For example, NITL's consultants used 30 rail miles rather than the "30-mile radius" specified in the NITL proposal to assess the scope of the NITL proposal. While NITL's proposal is not limited to rail miles, NITL's consultants used rail

miles while at the same time acknowledging that decreasing the radius applied can substantially reduce the volume of traffic affected.¹⁰

NITL also adopted a narrow definition of what would be considered a possible interchange point that is not consistent with its proposal that switching could be mandated anywhere where "there is or can be a working interchange."¹¹ This had the effect of limiting the number of stations, and therefore carloads, that NITL identified as eligible for mandated switching.

NITL also excluded carloads where a mandated switching order would open one end of a movement but leave the incumbent Class I as the sole carrier at the other end of the movement. The NITL proposal clearly would entitle shippers to seek mandatory switching under these circumstances and shippers could have reasons to do so. Excluding these carloads artificially reduces the potential scope of the NITL proposal.

NITL also excluded KCS, CN, and CP traffic. Although the Board permitted parties to examine less than all traffic, this exclusion means that the NITL scope estimates are not industry-wide and are thus understated.

Each of the choices described above reduced the number of carloads that NITL portrays as covered by its proposal. The only material instance in which NITL made a choice that expanded its estimate of affected carloads relative to AAR's estimate was in purporting to identify carloads at stations served by more than one railroad that would nonetheless fall within the scope of mandatory switching because the shippers' facilities at those stations do not, in fact, have access to more than one Class I railroad. AAR did not attempt to include these carloads in its estimate because, as explained by Messrs. Baranowski and Brown in their opening statement,

¹⁰ NITL Comments at 44.

¹¹ NITL Petition at 67.

no meaningful estimate can be made of the number of relevant carloads using the Waybill data.¹² NITL's approach did not overcome the data limitations.

As Messrs. Baranowski and Brown explain in their reply statement, the basic criterion NITL used to identify potentially qualifying carloads at multi-served stations was whether the traffic has an R/VC over 240%. There are obvious problems with NITL's approach, however. The choice of 240% R/VC as the determinant of whether a shipper has more than one rail option is entirely arbitrary. The Waybill data show that there are many movements from shipper facilities with a single rail option that have R/VC ratios below 240%. Moreover, NITL failed to account for the 75% rule in its own proposal (*i.e.*, carloads that would qualify for switching because more than 75% of the shipper's traffic is handled by the single railroad that serves its facility at the multi-served station) and therefore left out of its estimate a large number of carloads that could potentially qualify for mandated switching under that alternative.

Baranowski/Brown Reply V.S. at 8-10.

b. USDOT's Analysis of the Potential Scope of the NITL Proposal Is Incomplete.

Like NITL, USDOT sought to quantify the number of carloads potentially subject to mandated switching based on 2010 Waybill data. Also like NITL, USDOT made methodological choices that clearly led to lower numbers of affected carloads (and revenues) than would have resulted from a model incorporating NITL's actual proposal or applying NITL's proposal to all potentially affected traffic transported by all Class I carriers. Among other things, USDOT evaluated a subset of commodities, excluded exempt traffic (which NITL *included*), excluded KCS, CN, and CP traffic, excluded traffic that originated or terminated outside the

¹² AAR Comments, Verified Statement of Michael R. Baranowski and Richard W. Brown, at 4 ("Baranowski/Brown V.S.").

United States, and excluded Class II and III railroads as potential alternative carriers. USDOT explained that it made these narrowing assumptions in response to the Board's comment in the notice initiating this proceeding that commenting parties could focus only on a single railroad in presenting impact estimates. But, as a result, USDOT's analysis focuses only on limited and incomplete data which do not reflect the universe of rail traffic subject to the NITL proposal.

USDOT's analysis is incomplete in other respects. USDOT considered only single-line moves, and it considered only traffic with an R/VC ratio of 240% or more. As AAR explained above, NITL's 75% presumption has the potential for swallowing the 240% R/VC criteria. Therefore, USDOT's limitation of its analysis to traffic with an R/VC ratio of 240% or more dramatically understates the scope of the NITL proposal. USDOT's focus only on single-line moves similarly understates the scope of the NITL proposal. Indeed, even NITL's understated impact analysis suggests that more traffic and revenue would be subject to the proposal than does USDOT's.¹³

c. NGFA's and USDA's Impact Estimates Are Not Meaningful Even for the Limited Commodities Evaluated.

Only two additional commenters, NGFA and USDA, tried to quantify the number of carloads potentially affected by the NITL proposal. Their evidence relates to agricultural shippers, and both commenters question the extent of benefits that would accrue to agricultural

¹³ An additional issue is that neither AAR nor the Board can verify USDOT's analysis because USDOT did not make available the underlying workpapers. Without those workpapers, AAR's consultants were unable to reproduce USDOT's results. It would be problematic for the Board to draw conclusions from USDOT's calculations since those calculations cannot be verified or commented on without underlying workpapers. See, e.g., *Chamber of Commerce of the United States v. SEC*, 443 F.3d 890, 900 (D.C. Cir. 2006) ("By requiring the 'most critical factual material' used by the agency be subjected to informed comment, the APA provides a procedural device to ensure that agency regulations are tested through exposure to public comment, to afford affected parties an opportunity to present comment and evidence to support their positions, and thereby to enhance the quality of judicial review.")

shippers. NGFA concludes that agricultural shippers would receive “minimal” benefit from the NITL proposal,¹⁴ while USDA asserts that “the NITL proposal would benefit too few grain and oilseed shippers.”¹⁵ Both NGFA and USDA focused on subsets of traffic limited to agricultural commodities. Moreover, there are several deficiencies in both analyses, and as a result they do not present credible or meaningful impact estimates even for the commodities they analyze. Neither NGFA nor USDA attempted to model NITL’s actual proposal.

NGFA’s analysis of potentially affected carloads consists of little more than (1) identifying carloads from the 2011 Waybill Sample that fall into agricultural commodity categories specified by NGFA; (2) identifying single-line Class I movements in this agricultural group that do not originate in Canada; and (3) reporting the number of carloads in the resulting group that have an R/VC ratio of 240% or more, or alternatively RSAM.¹⁶ This analysis has only the most tenuous connection to the NITL proposal. The number of carloads of various commodities in a given R/VC range says virtually nothing about the NITL proposal’s impact. In addition, NGFA did not attempt to identify carloads that would qualify under NITL’s 75% conclusive presumption. Moreover, NGFA’s exclusion of traffic with Canadian origins and joint-line traffic are not consistent with the NITL proposal, which does not exclude such movements.

The USDA analysis was performed by Escalation Consultants, the same firm hired by NITL, and appears to consist of a subset of the NITL analysis involving agricultural commodities. USDA presents estimates of potentially affected carloads for those commodities

¹⁴ NGFA Joint Comments at 23.

¹⁵ Comments of the U.S. Department of Agriculture, at 5 (filed March 1, 2013) (“USDA Comments”).

¹⁶ NGFA Joint Comments, Opening Verified Statement of Gerald W. Fauth III, at 5-8, 14 (“Fauth V.S.”).

using three different R/VC thresholds: 180%, 240%, and RSAM.¹⁷ To the extent that USDA's evidence is NITL's evidence on a smaller scale, it suffers from the numerous defects described above that render the NITL analysis meaningless. Moreover, it was impossible for AAR, as it will be for the Board, to properly assess USDA's evidence because USDA refused to provide the workpapers underlying its analysis. When contacted by counsel for AAR, USDA asserted that its analysis was based on "proprietary" software and data and that it would consider providing AAR only with non-proprietary materials and only in response to a Freedom of Information Act request.¹⁸ The Board cannot rely on evidence submitted by a party who refuses to disclose the basis for its evidence and therefore does not give other parties the ability to review and comment on its underlying calculations.¹⁹

¹⁷ USDA Comments at 10-12. USDA claims that it presents data corresponding to an alternative 180% R/VC eligibility criteria because it "is not in favor of restricting switching based on an arbitrary threshold." *Id.* at 5. AAR agrees with USDA that NITL's proposed 240% R/VC threshold is "arbitrary" and that an RSAM threshold would be equally "arbitrary." As AAR explained in its opening comments, the R/VC level of a movement does not say anything about market dominance or the absence of effective competition. Similarly, the statutory 180% R/VC criteria is intended only to exclude from any consideration of market dominance movements below 180% R/VC, not as a means of identifying whether market dominance exists. Indeed, USDA ultimately acknowledges that it supports a 180% R/VC threshold for the unprincipled reason that "it would allow more agricultural shippers to benefit from competitive switching." USDA Comments at 6.

¹⁸ USDA's reference to "proprietary" materials presumably involved workpapers prepared by Escalation Consultants. NITL and Escalation Consultants apparently did not view such materials as "proprietary" since NITL provided workpapers from Escalation Consultants upon request.

¹⁹ See *Chamber of Commerce*, 443 F.3d at 900.

2. Board Question 3 – Evidence on the Financial Impact of the NITL Proposal on Railroads

The Board's third question focuses on the likely reduction in revenues available to the railroad industry as a result of the NITL proposal. NITL was the only commenter that claimed to provide an overall revenue impact figure. However, NITL based its estimate of financial impact on the number of carloads potentially affected by the proposal (by calculating a per carload revenue reduction), and thus its understatement of the potentially affected carloads produced an understatement of financial impact.²⁰ NITL's revenue impact analysis is incomplete and unreliable for additional reasons.

a. NITL Virtually Ignored the Access Price Issue.

When the Board initiated this proceeding, it stated that a "critical element" missing from NITL's proposal was the access price that would be established in the event railroads are unable to negotiate a switching fee. The level of the access price directly affects the impact of mandated switching. As Messrs. Eakin/Meitzen explain in their reply verified statement ("Eakin/Meitzen Reply V.S."), an artificially low regulatory access price would distort the market by encouraging shippers to use inefficient switching. In contrast, market-based access prices would ensure that switching occurs only when market forces justify switching. Eakin/Meitzen Reply V.S. at 12-15. Therefore, the level of the access price affects the amount of switching that would occur under the NITL proposal. It also affects the amount of revenue that would be lost by the railroads under a mandated switching regime since the switching fee could potentially reduce or offset the revenue losses from reduced line-haul rates.

²⁰ Revenue figures presented by other parties, *e.g.*, USDA, NGFA, USDOT, explicitly relate to only a subset of potentially affected carloads. While NITL's analysis was in some senses more complete, NITL also explicitly chose to address less than all potentially affected traffic when it limited its analysis by excluding KCS, CN, and CP traffic.

As AAR explained on opening, AAR is not in a position to make any estimate relating to access prices. The statute provides that access prices are supposed to be established through railroad negotiations, 49 U.S.C. § 11102(c)(1), and AAR takes no position on the outcome of private negotiations among railroads regarding compensation for access. Indeed, the statutory mandate that access prices are to be established in the first instance through negotiations is another reason that the impact of the NITL proposal is impossible to predict. Negotiated access prices would be established in the context of numerous different situations and cannot be predicted in advance or as a general matter. In any event, since AAR is not in a position to estimate access prices, AAR was not in a position to provide estimates of rate reductions that would result from the NITL proposal.

While the Board noted the absence of the “critical element” of access prices from NITL’s original proposal, the Board gave NITL the opportunity to remedy this failing in this proceeding. However, the proponents of the NITL proposal virtually ignored the issue. For purposes of its analysis, NITL calculates an estimated average access price that uses Canadian interswitching fees as a starting point.²¹ But NITL does not argue that the Board should adopt the Canadian approach.²²

To the extent that NITL’s discussion of Canadian interswitching rates is intended to suggest that the Board should adopt some sort of cost-based access fee regime, that proposal

²¹ NITL calculates its average access price based on the assumption that distance to interchange does not influence the price, even though that distance is a factor in setting the Canadian rate.

²² USDA appears to suggest that the Board should simply adopt interswitching fees established by the Canadian government. USDA provides no details of how this should be done and the proposal cannot be taken seriously. The Board could not possibly consider ceding responsibility for an important regulatory decision to a foreign government, nor would there be any rational basis for establishing U.S. access prices for carriers performing mandatory switches in the U.S. based on railroads operating in Canada.

should be rejected. Messrs. Eakin and Meitzen explain in their reply verified statement that adopting cost-based access fees would not be sound regulatory policy. Cost-based access fees would be inconsistent with the principles of differential pricing that are at the heart of the Board's rate-regulation procedures and are likely to result in market outcomes that are inefficient. Access fees that are set by the regulator below the level that would prevail under market-based negotiations would produce an amount of switching greater than the economically optimal level. Eakin/Meitzen Reply V.S. at 13-15.

b. NITL Presents a Flawed Analysis of Competitive Response.

In addition, as explained in the Eakin/Meitzen Reply V.S., NITL's methodology for estimating the extent to which revenues would fall in the presence of mandatory switching is conceptually flawed for a variety of reasons. Eakin/Meitzne Reply V.S. at 7-12. NITL witness Roman developed two scenarios for estimating revenue reductions, one of which he labels "full competition" and the other "reduced competition." As Messrs. Eakin and Meitzen discuss, however, neither NITL nor Mr. Roman describes the market mechanisms or forces that would lead to substantially reduced rates under mandatory switching. NITL and Mr. Roman assert that (1) the driver behind reduced rates would be the threat of switching and that (2) switching will rarely, if ever, occur. Even if NITL were correct that shippers would be interested in mandatory switching only for purposes of obtaining lower rates, NITL offers no basis for predicting the volume of switching that would be required to maintain the threat of mandatory switching that it claims is necessary to bring about desired rate reductions. Instead, it conveniently assumes, with no evidentiary basis, that there would be virtually no switching. This failure by NITL to support its claim that future mandatory switching would be *de minimis* or, alternatively, to account for significant levels of switching that might be necessary to produce the desired rate reductions, undermines its financial impact estimate.

Nor is there any basis for the distinction that Mr. Roman creates between his “full competition” and “reduced competition” scenarios. As Messrs. Eakin and Meitzen explain, Mr. Roman’s analysis is based on the assumption that traffic with an R/VC below 180% is “fully competitive” while traffic above that threshold is “captive.” The distinction he draws is supported neither by economic theory nor by the statute. The R/VC ratio on a particular movement does not establish the degree of competition faced by the railroad providing the transportation.²³ Much more detailed information about individual markets and individual shippers would be required before any reasonable estimate could be made of the price levels that would result from the availability of a new carrier under a mandatory switching regime.²⁴

c. NITL Failed to Consider the Impact of Reduced Revenues on Infrastructure Investment.

NITL argues that the Board need not worry about the financial impact of its proposal because NITL’s estimated \$1.29 billion annual loss of revenue (for the four Class I railroads covered by NITL’s analysis) would be a “very small fraction” of total Class I railroad revenues.²⁵

²³ See Comments of Roanoke Cement Co., at 5-6 (stating that Roanoke is served by only one railroad but has rates below 240%); *M&G Polymers USA, LLC v. CSX Transportation, Inc.*, STB Docket No. NOR 42123 (served Sept. 27, 2102) (finding that railroad lacked market dominance on certain routes with rates over 240%).

²⁴ Roman’s “duopoly pricing” model is based on the assumption that railroads would not compete vigorously for traffic that becomes available through mandated switching. Other commenting parties go farther and question whether mandated switching could be expected to provoke any competitive response by the railroads. See, e.g., Comments of the Chlorine Institute, Inc., at 2 (filed Mar. 1, 2013) (“Chlorine Institute Comments”); Opening Submission of Entergy Arkansas, Inc., et al., at 11 (filed Mar. 1, 2013) (“Entergy Comments”); NGFA Joint Comments, at 15-16 (filed Mar. 1, 2013); Initial Comments of Olin Corporation, at 6 (filed Mar. 1, 2013). Many shippers in Ex Parte No. 705 made similar unsupported claims about the rigor of rail-to-rail competition, and the railroad parties in that proceeding showed that such claims were empty rhetoric and contrary to actual experience in rail markets. Shipper commenters in this proceeding have provided no reason to give further consideration to their baseless claims regarding the degree of railroad competition in transportation markets.

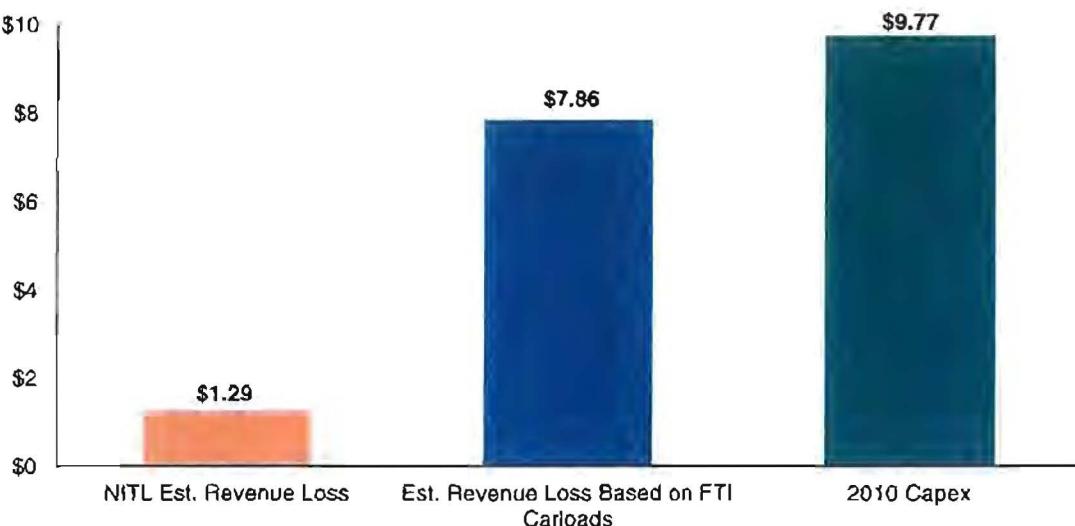
²⁵ NITL Comments, at 64.

But as explained by Mr. Rennicke in his reply verified statement (“Rennicke Reply V.S.”), NITL’s discussion of the revenue impact of NITL’s proposal as a percentage of gross revenues is highly misleading because it does not reflect the money available to railroads to fund capital investments. Capital investments are funded in large measure by net income, *i.e.*, the revenues that are left over after subtracting expenses. Net income and capital spending are the appropriate benchmarks for assessing the impact of the industry’s revenue losses.

When put into the proper context, it becomes apparent that even the revenue losses estimated by NITL would have a major impact on capital spending by the railroad industry. As Mr. Rennicke explains, NITL’s understated \$1.29 billion revenue loss (for four Class I railroads) is the equivalent of 13 percent of the railroad industry’s 2010 capital expenditures. Rennicke Reply V.S. at 19. And when FTI’s estimate of the carloads affected by NITL’s proposal is substituted in NITL’s analysis for NITL’s lowball carload estimate, the revenue losses using NITL’s financial impact assumptions would be almost the equivalent of the industry’s entire capital spending budget. Mr. Rennicke’s Exhibit IV-3, set out below, depicts the magnitude of the revenue losses using NITL’s understated carload estimate and FTI’s carload estimate compared to capital expenditures in 2010. It is clear that the revenue losses from the NITL proposal would be substantial and would lead to a contraction of the U.S. rail network.

Exhibit IV-3: Magnitude of the NITL's Revenue Loss Understatement²⁶

\$ billions



d. NITL Failed to Consider the Additional Costs to Railroads and Shippers that Would Be Imposed by Mandatory Switching.

The revenues available to the railroad industry to make capital investments would be reduced as a result of lower rates *and* as a result of higher costs. NITL and its supporters failed altogether to consider the cost impact of NITL's proposal.

It is not possible to predict the amount of additional switching that would result from NITL's proposed rule change. However, even NITL acknowledges that adding switches would increase railroad costs. Mr. Rennicke explains that additional costs would be imposed on railroads in the areas of yard track, yard staff, train and engine staff, railcars, locomotive maintenance and fuel. Rennicke Reply V.S. at 25-26. Rough estimates of the magnitude of the cost increases in these areas can be made by looking at the historical relationship between the resources that have been required in each of these cost categories in past years and the number of interchanges in the corresponding year. Mr. Rennicke shows in Exhibits IV-6 to his reply

²⁶ Source: Revenue impacts based on Oliver Wyman analysis of NITL and FTI data contained in the EP 711 filing, March 1, 2013. 2010 capex from Railroad Facts, 2011 Edition, op. cit., p. 44.

statement that these estimated cost increases are substantial. When the cost increases are added to the effect of rate reductions, the revenue losses for 2010 exceed total 2010 capital expenditures.

Mr. Rennicke also explains that these cost estimates do not include any estimate of the substantial and widespread indirect costs that would be incurred by railroads and shippers from the effects of congestion and other operating inefficiencies that would result from a mandated access regime. The indirect costs would further reduce the revenues available to make capital investments in rail infrastructure. *See* Rennicke Exhibit IV-7. Moreover, these indirect costs would not be borne only by the railroads; shippers could expect to incur costs ranging from additional car fleet requirements to delay-related costs. Rennicke Reply V.S. at 28-30.

Thus, while precise estimates of the financial impact of the NITL proposal cannot be made, it is clear that the total revenue losses from reduced rates and increased costs that could be incurred as a result of the NITL proposal would be devastating to the public's interest in a well financed railroad network. The public interest is not advanced by regulatory measures that would severely undercut the ability of the railroad industry to make capital investments in infrastructure needed to improve and expand the railroad network.

e. NITL's Claims of Traffic Increases Are Unsupported and Implausible.

The Board also asked whether there was evidence that any reduction in rates that resulted from the NITL proposal would produce net increases in traffic that would, at least in part, offset the reduced revenues that would be available to the railroads. The comments supporting the NITL proposal contain nothing but speculation about potential traffic gains.

While NITL's analysis is very superficial, it appears that NITL assumes that the primary source of traffic gains would be traffic taken by railroads from other modes of transportation:

"[I]f it costs more to ship by rail than other logistics options, railroads will lose business. And, the converse is also true: as rail rates decline, more traffic will flow to the railroads."²⁷ There is a fundamental logical flaw in NITL's argument. As explained by Messrs. Eakin/Meitzen, the premise underlying NITL's mandated switching proposal is that the traffic subject to mandated switching does not have effective modal competitive alternatives. If that is true, then rail rate declines on traffic eligible for switching would not attract traffic from other modes – those other modes were not effective alternatives to the rail traffic in the first place. Eakin/Meitzen Reply V.S. at 17.

There are other flaws in NITL's vague claims that lower rates will attract more rail traffic. NITL, for example, bases its claim that lower rates produced by mandatory switching would lead to new traffic on a study of Canadian traffic increases into Chicago during a period when Mr. Roman asserts that U.S. rates for comparable shipments into Chicago were rising. Mr. Roman appears to believe that shippers make transportation choices based on how quickly rates increase rather than on the level of rates.²⁸ His logic is obviously flawed. If Railroad A increases its rate from \$1 per ton to \$1.50 per ton (a 50% increase) while Railroad B increases its rate from \$2.00 per ton to \$2.58 per ton (a 29% increase), there is no obvious reason why a shipper would switch from Railroad A to Railroad B. Notwithstanding the *higher percentage increase* on Railroad A's rate, the *dollar* level of Railroad A's rate is still lower than that of Railroad B's rate. In any case, as Messrs. Eakin and Meitzen explain, NITL and Mr. Roman fail to establish any causal link between increased Canadian shipments and U.S. rail rates. Mr. Roman simply asserts that increased Canadian shipments were due to changes in U.S. rates

²⁷ NITL Comments at 54.

²⁸ Roman V.S. at 44 ("[t]he small increase in CN and CP rates gives them an advantage").

without performing any actual analysis of what market factors may have influenced Canadian shipments. Eakin/Meitzen Reply V.S. at 17-18. In fact, in a number of the examples upon which Mr. Roman relies, Canadian rates were actually *higher* than U.S. rates.²⁹ Increased Canadian shipments into the United States were clearly attributable to something other than lower rates in those cases.

USDA also claims that traffic would increase as a result of mandatory switching, but it does not even attempt to provide evidence supporting its claim that “between 30 and 50 percent of the revenue lost due to competitive switching could be recaptured through traffic creation.”³⁰ USDA’s analysis, performed by Escalation Consultants, is completely unsubstantiated and based on assumptions for which no support is provided. As Messrs. Eakin/Meitzen explain in their Reply V.S. at 18-19, although USDA makes assertions about the range of elasticities of demand for transportation of corn and wheat, USDA’s numbers do not appear to come from the source USDA cites. USDA’s claim about how shipper demand elasticities would change in the presence of a second rail carrier is equally unsupported. Nor does USDA explain where the additional carloads it posits would come from. Under the NITL proposal, rate reductions would occur only on the carloads potentially subject to mandated switching, so any additional traffic induced by the rate reductions would have to come from the shippers for which mandated switching is available. But USDA has offered no evidence that those shippers have additional grain inventories that they could suddenly decide to ship by rail in response to the adoption of NITL’s proposal.

Mr. Rennicke also addresses NITL’s claim that traffic increases would result from the reduced rates produced by mandated switching. Rennicke Reply V.S. at 34-37. Mr. Rennicke

²⁹ See, e.g., Roman V.S. at 45, 46.

³⁰ USDA Comments at 15.

notes that NITL and its supporters failed to consider any market factors that would be relevant in assessing whether traffic increases could result from lower rail rates. As Mr. Rennicke explains, the two primary beneficiaries of NITL's proposal would be coal and chemical shippers. Market conditions relevant to coal transportation, including widespread announcements that coal-fired electric generating facilities are being decommissioned, certainly do not support NITL's speculation that coal traffic would increase as a result of mandated switching. As to chemicals, Mr. Rennicke explains that there is no reason to believe that reduced transportation rates would have a significant impact on the volume of rail transportation of chemical products given that transportation costs are such a small percentage of the total value of chemical shipments.

3. Board Question 4 – Evidence on the Impact of the NITL Proposal on Disfavored Shippers

The commenting parties who support the NITL proposal largely ignored the Board's question regarding the potential impact of the proposal on shippers that would not have access to mandated switching. To the extent the commenting parties said anything about these disfavored shippers, they focused on whether the railroads would raise rates on the disfavored shippers to make up for revenues lost on movements that would be subject to mandated switching. One commenter, NGFA, while purporting to support the NITL proposal, nonetheless argues that NGFA shippers who do not obtain mandated switching could face substantial rate increases that "would far exceed any potential benefits to NGFA Commodity shippers as a group from the Proposal."³¹ NGFA does not, however, demonstrate that railroads would have the ability to raise rates or substantiate its assumptions about the levels to which rates for disfavored shippers would rise.

³¹ NGFA Joint Comments at 21-22.

NITL makes the contrary claim. It argues that railroads would not likely raise rates on disfavored shippers, asserting that if rate increases were possible, the railroads would have already taken them.³² As AAR noted in its opening evidence, whether market conditions would permit rate increases could only be determined at some future point in time when the NITL proposal went into effect. Whether rate increases would even be feasible is unknowable at the present.

None of the commenters other than AAR and its members addressed a different and potentially serious source of harm to the disfavored shippers – the possibility that the favored shippers would be able to use the lower rates they obtain to take market share away from the disfavored shippers. As Messrs. Eakin and Meitzen explain in their Reply V.S. at 3, the average rail rate decrease of 44% that NITL envisions for favored shippers would likely confer a significant competitive advantage on the favored shipper. This, in turn, could create a significant change in the competitive balance in the product markets where the favored shippers compete against the disfavored shippers.

Messrs. Meitzen and Eakin also note that the opening comments of various parties acknowledge that the NITL proposal would have disparate impacts on different groups of shippers. NITL itself speculates that many more shippers will fail to qualify for mandated switching than will qualify.³³ The American Chemistry Council asserts that chemical shippers will be the primary beneficiaries of the NITL proposal.³⁴ NGFA, on the other hand, asserts that

³² NITL Comments at 57.

³³ *Id.*

³⁴ Comments of the American Chemistry Council, at 5 (filed Mar. 1, 2013) (“ACC Comments”). Even among chemical shippers, support for the NITL proposal does not appear to be unanimous. The Chlorine Institute and Olin question whether the NITL proposal will be effective and argue that the Board should engage in much more intrusive reregulation of the rail industry. Chlorine Institute Comments, at 2-3; Olin Comments, at 8.

relief for agricultural shippers would be “minimal,” and USDA claims that the proposal “would benefit too few grain and oilseed shippers.”³⁵

Coal shippers appear primarily concerned that mandated switching could interfere with their ability to bring rate cases. Their comments are devoted entirely to the implications of mandated switching for market dominance determinations.³⁶ They contend that the availability of a mandated switch should not affect shippers’ ability to bring a rate reasonableness challenge because competition resulting from the mandated access “very well may be far from robust.”³⁷ The coal shipper’s market dominance concern reflects their ambivalence about the NITL’s proposal. More important, the coal shippers’ argument is inconsistent with the core premise of the NITL proposal, namely that mandated switching is necessary to introduce competition. It is inconsistent for shippers to urge the Board to implement mandated access on grounds that it will produce artificial competition that will reduce rates while at the same time arguing that they should be allowed to bring rate cases that are permitted only in the absence of competition.

Another harm that would be suffered by disfavored shippers would result from the inefficiencies and decline in service that would be produced by mandated switching. Service would be immediately affected as the direct consequence of adding inefficient and potentially complex switching operations in areas of the rail network that are not designed to accommodate such switching. Over a longer time period, service levels would decline due to the negative impact of revenue reductions on the ability of railroads to fund capital infrastructure investments. As noted above, revenue losses from mandated switching would severely constrain railroads’ ability to improve and expand the railroad network through capital investments. While these

³⁵ NGFA Joint Comments at 23; USDA Comments at 5.

³⁶ Entergy Comments, at 8-14.

³⁷ *Id.* at 11.

service declines would affect all shippers, the disfavored shippers would have to accept lower service levels without any potentially offsetting private benefits from lower rates. As discussed below, none of the parties supporting the NITL proposal made a serious attempt to address the impact of the NITL proposal on the quality of rail service.

4. Board Question 5 – Evidence on the Impact of the NITL Proposal on Service and Network Efficiency

As AAR explained in its opening comments, the Board's fifth question is of critical importance in assessing whether the NITL proposal is in the broad public interest. Notwithstanding the importance of understanding the impact of the NITL proposal on the quality of rail service, no supporter of the NITL proposal made a serious effort to evaluate the impact of the NITL proposal on service levels and network efficiency. By failing to deal with this crucial aspect of the public interest analysis that the Board must conduct, the supporters of NITL's proposal have left a gaping hole in the evidence they offer in support of their proposal.

a. NITL Cannot Assume that Litigation in Individual Cases under the Proposed Rule Would Adequately Deal with System-Wide Service Impacts.

NITL claims that service issues can be assumed away because its proposal allows a rail carrier to show that "switching is not feasible or is unsafe, or that the presence of such switching will unduly hamper the ability of that carrier to serve its own customers."³⁸ This provision of NITL's proposed rule is a prime example of the ambiguities inherent in NITL's proposal. The provision is undefined and therefore it is impossible to know how it would be implemented. Indeed, NITL itself describes the exception in inconsistent ways. At different points in the same paragraph discussing this provision, NITL refers to the proposed standard as an inquiry into

³⁸ NITL Comments at 64.

whether switching is “safe, feasible and efficient” and whether there “will be adverse or unsafe operational effects.”³⁹ Neither formulation tracks the language of the NITL proposal.

Moreover, many of the service impacts that would result from mandated switching would be difficult to address in the context of the litigation of mandated access to an individual facility. The evidence needed to address service impacts could be extremely complex. The evidence would also have to deal with the inherent unpredictability of traffic flows in a mandated switching regime and to service impacts at a network level that would be hard to anticipate or to link to particular occurrences of inefficient switching. In addition, addressing service impacts through individual case litigation would tend to favor shippers who seek orders early rather than those who do so after service problems begin to become apparent, thus magnifying the winner/loser dichotomy inherent in NITL’s proposal. At a minimum, litigation over potential service impacts would create a huge litigation burden for the parties and the Board. The Board’s EP 711 Notice suggests that the Board may believe that a mandated switching regime might “reduce governmental intervention,”⁴⁰ but the litigation over service impacts could dramatically expand regulatory litigation.

NITL also cannot expect to shift the burden of assessing system-wide service impacts from its proposal to railroad defendants in individual proceedings under the proposed rule. NITL is proposing a network-wide approach to reciprocal switching that would use broad presumptions that could be easily applied to obtain mandated access. NITL’s proposal expressly repudiates the focus of the current competitive access rules on the circumstances in individual cases and in its place proposes a system-wide approach to reciprocal switching. But if NITL wants a system-wide rule, it must demonstrate that the system-wide effects would not injure the public interest.

³⁹ *Id.*

. . . ⁴⁰ EP 711 Notice at 6.

NITL cannot shift the burden of demonstrating the existence or extent of service impacts on the rail network to railroads in individual proceedings. Since NITL is the party seeking a fundamental change in regulation, NITL has the burden of showing that the change is justified and it has failed to do so.

b. The Canadian Experience with Interswitching Does Not Support NITL's Claim that Service in the United States Would Be Unaffected by Mandated Switching.

NITL also seeks to dismiss the issue of adverse service impacts by arguing that service disruptions and inefficiencies would only arise if switching were actually to occur but that actual switching would be minimal.⁴¹ However, rather than evaluate circumstances that exist in the United States, where mandated switching would be introduced under the NITL proposal, NITL relies on a misleading description of Canadian experience with interswitching as the sole basis for its claim that the Board need not worry about adverse service impacts.

NITL's first argument about Canada is that the Canadian rail network has not suffered service disruptions from interswitching so the Board should not expect service disruptions to occur in the United States from mandated switching. This argument is so simplistic that it cannot be taken seriously. NITL makes no effort to examine how interswitching is carried out in particular Canadian interchanges, the yard operations in Canada that have evolved to accommodate interswitching, where interswitching occurs, or the multitude of operating concerns that AAR pointed out in its opening evidence that would be raised by mandated switching in the United States.

Moreover, when examined at a superficial, aggregate level, as NITL proposes, the Canadian experience is meaningless in predicting the effect of mandated switching in the United

⁴¹ NITL Comments at 59-60.

States. Canadian geography and railroad configurations are so different from those in the United States that the impact of mandated switching in Canada says nothing about what would happen in the United States. Messrs. Ireland and Case explain in their reply verified statement (“Ireland/Case Reply V.S.”), at 16, that the Canadian railroad network is a relatively simple east-west rail network that evolved to connect a half dozen large metropolitan areas located in a narrow band along the U.S. border. The effect of interswitching on such a low-volume, east-west rail network as in Canada says nothing about the disruptions that would occur in a high-volume, high-density, complex web-like network that exists in the United States. As Messrs. Ireland and Case explain, there are no rail hubs in Canada that come close to the level of complexity or the volume of traffic of an area such as Chicago, St. Louis, Houston, Kansas City or many other U.S. urban areas that would be affected by NITL’s proposal. *Id.* at 24.

c. NITL’s Interswitching Calculations Are Erroneous and Misleading.

NITL’s second argument about Canada is that the level of interswitching in Canada is very low, so there is no reason to expect much disruptive switching to occur in the United States under a mandated switching regime. AAR’s witnesses Messrs. Ireland and Case show that NITL’s calculations of the level of interswitching in Canada are highly misleading and do not provide any support for NITL’s claim that very little switching would occur under the NITL proposal in the United States.

As a preliminary matter, mandatory interswitching has been a part of Canada’s regulatory regime for over 100 years. The amount of switching that occurs in a railroad network where commercial and operating practices have evolved to accommodate mandated switching over decades says nothing about the likely impact that the introduction of mandated switching would

have in a railroad network like that in the United States where the affected shippers have not previously had access to an alternative carrier.

Moreover, Messrs. Ireland and Case explain that there is no uniform interswitching experience in Canada that can be used to predict the amount of switching that would occur in the United States under NITL's proposal. The rate at which mandatory switching is used in Canada depends on specific market conditions and the configuration of rail networks and connections between carriers. For example, Messrs. Ireland and Case explain that low levels of interswitching are experienced on traffic in Eastern Canada going to the United States due to the widespread availability of competitive alternatives in these export markets. Ireland/Case Reply V.S. at 35-37. Canada's experience with interswitching in these export markets, which account for almost half of all eastern Canada's rail transportation, is irrelevant in predicting the amount of switching that would occur under NITL's proposal where the only traffic that is supposed to be subject to mandated switching is traffic that has no competitive alternatives.

NITL's estimates of the actual level of interswitching in Canada and its application of those estimates to the U.S. rail market are also seriously flawed. *Id.* at 27-33. The most obvious error is that NITL's calculation of the frequency of interswitching in Canada includes traffic of CN's and CP's U.S. subsidiaries that is not subject to Canada's interswitching regulations, thereby appearing to reduce the rate of interswitching in Canada. In any event, the results that NITL obtains using its misleading calculations of Canadian interswitching are implausible on their face. NITL claims that the NITL proposal would produce in the United States *half* the number of switches that occur in Canada even though the U.S. rail market is *seven* times larger than Canada's and has 22 times the number of potential switching locations.

In short, the only meaningful evidence that has been submitted in this proceeding on the impact of NITL's proposal on service levels in the United States is the evidence submitted by AAR and its members. That evidence showed that the NITL proposal has the potential for creating severe localized operating problems, particularly where congestion already exists, and that those local service disruptions have the potential for expanding throughout the rail network. NITL and the other supporters of the NITL proposal have provided the Board with no basis for ignoring the potentially widespread adverse service consequences of the NITL proposal.

III. The Available Evidence Demonstrates that the NITL Proposal Is Not in the Public Interest.

Notwithstanding the uncertainties inherent in predicting the impact of the NITL proposal, the evidence submitted in this proceeding strongly indicates that the NITL proposal is not in the public interest and that the Board should discontinue any further consideration of the NITL proposal. The shippers supporting the NITL proposal make no effort to conceal the fact that the only goal of the proposal is to achieve lower rates for those shippers that would be able to take advantage of mandated switching. Accordingly, the NITL proposal is nothing more than an alternative form of rate regulation that is not based on any economic principles and that is designed solely to effect a wealth transfer from railroads to a sub-group of shippers.⁴²

There is no evidence that the wealth transfer to the favored shippers that would result from reduced rates would produce any benefits for the public, such as improved service, innovation in rail markets, improvements in rail infrastructure or expanded rail service. Indeed, far from showing any benefits to the public, the only credible evidence in this proceeding shows

⁴² Not only is the sole objective to effect a wealth transfer, NITL appears to believe that the only meaningful *effect* of its proposal would be the annual transfer of \$1.3 billion from railroads to shippers. NITL assumes that the existence of a mandated switching regime would produce virtually no change in rail routes or operations – its only impact would be to reduce rate for the favored shippers.

that the public interest would be substantially harmed by mandated access by reducing the efficiency of the rail network and denying carriers the capital necessary to improve and expand the network. It would not be an appropriate use of regulatory power to enrich a group of shippers at the expense of all users of the railroad network.

A. The Supporters of the NITL Proposal Point to No Public Benefits that Would Result from Mandated Switching.

The statute does not permit the Board to adopt a mandated switching regime for the sole purpose of transferring wealth from railroads to shippers. The Board should be using its regulatory power to advance the public interest. AAR's witness Mark Fagan describes in his reply verified statement ("Fagan Reply V.S."), at 3-5, the appropriate framework for determining whether an access proposal like NITL's is in the public interest.

As Mr. Fagan explains, a public interest analysis must consider whether any benefits that the public could expect would exceed the costs that would be imposed. On the question of public benefits, Mr. Fagan explains that the mere transfer of wealth from railroads to a group of shippers does not produce any benefits to the public. *Id.* at 5. As a matter of regulatory theory, lower rates do not provide the public with any benefits unless the lower rates are accompanied by competition-driven efficiencies, service improvements, innovation, efficient infrastructure investments or expanded rail service. On the question of costs, Mr. Fagan explains that costs associated with access can be substantial and can overcome any public benefits that might otherwise exist. Mr. Fagan notes that his research has shown that the primary outcome of opening rail access in other countries has been a wealth transfer from railroads to shippers, rather than the creation of a public benefit. *Id.* at 6-7.

While the Board must focus on the public interest, NITL and its supporters have made no effort to demonstrate that public benefits would flow from mandated switching. The shipper

supporters do not attempt to demonstrate that mandated switching is intended to remedy a service problem or to give shippers the ability to obtain better service. Were that the purpose of NITL's proposal, NITL would certainly not have devoted so much effort to arguing that little if any switching would actually occur if its proposal is adopted. Indeed, NITL admits that if mandated switching were actually to occur as a result of the new regulatory regime, it would inject inefficiencies into the existing service provided by railroads. In other words, NITL asks the Board to adopt a mandated switching regime but at the same time asks the Board to hope that little switching will actually occur, since even NITL acknowledges that mandated switching would degrade service.⁴³ Whatever else can be said about NITL's position in this proceeding, it is clear that the NITL proposal is not about improving rail service.

Similarly, the chemical shippers, who expect to be the prime beneficiaries of the NITL proposal, focus their comments entirely on the potential for rate reductions rather than on the potential for improving rail service or achieving other benefits for the public. The American Chemistry Council, for example, submitted surveys devoted almost entirely to documenting dissatisfaction among chemical shippers with rate levels. Among the incidental information revealed by the surveys is that few chemical shippers appear to be concerned about the existing reciprocal switching regulation. When asked about rate and service issues they had confronted in the prior five years, only 14% of respondents identified an inability to obtain reciprocal switching. Indeed, reciprocal switching ranked third from the bottom in the list of problems of concern to chemical shippers.⁴⁴

⁴³ NITL Comments at 49, 63.

⁴⁴ ACC Comments, Attachment B at 7.

B. NITL Has No Valid Basis for Seeking a Reduction of Rates that Are Not Unreasonably High.

The supporters of the NITL proposal make no attempt to hide the fact that mandated switching is intended simply as an alternative form of rate regulation. But using mandated switching as an alternative rate regulation regime is not supported by the statute or the Board's consistent practice. The Board does not have the authority to reduce rates unless the rate exceeds a reasonable rate. *See* 49 U.S.C. §10701(d)(1). Congress did not give the Board authority to reduce rates just because a group of shippers wants to pay less for rail transportation. Congress provided that the legal predicate for a Board order reducing rates is the existence of market dominance *and* a finding that the existing rate is unreasonably high. The supporters of the NITL proposal are trying to short-cut that statutory approach in favor of an approach that they deem to be less demanding but that is inconsistent with the statutory and regulatory structure governing railroad rate regulation.

Under the NITL proposal, the predicate for obtaining a rate reduction through mandated switching is the existence of market dominance. But the mere existence of market dominance does not make the rate charged by the railroad unreasonable. The statute provides that the existence of market dominance is a prerequisite to considering whether the level of a challenged rate is unreasonably high, but a separate analysis must be made to determine whether the rate charged by the market dominant shipper exceeds a maximum reasonable rate. The NITL proposal would provide rate relief without considering the necessary second step. This step, the determination of reasonableness, is made in accordance with substantive standards that have been approved by the courts.

The rate reductions expected to be produced by the NITL proposal would have nothing to do with the Board's rate reasonableness standards and the economic principles that underlie

them. Unlike the current competitive abuse standard governing reciprocal switching, which is intended to correct failures in the market, the sole purpose of the NITL proposal is to reduce rates. But there are already standards and procedures for obtaining rate relief where it is justified. NITL cannot circumvent those standards and procedures through changes to reciprocal switching regulations designed solely to obtain rate relief.

C. The Public Interest Would Not Be Advanced by Incurring the Risk of Serious Disruptions of Rail Service Without Any Offsetting Public Benefits.

Even if it were permissible to use mandated switching as a back door mechanism for regulating rates, the Board would still need to ask whether the rate reductions produced by mandated switching are in the public interest. If the public (as opposed to the favored shippers) could not expect any benefits from the rate reductions that would be produced by mandated switching, but would instead incur costs as a result of the mandated access, it would make no sense for the Board to adopt the NITL proposal.

As discussed above, there is no evidence in the record of this proceeding that the lower rates expected to result from the NITL proposal would produce any public, competition-related benefits at all. Service would not be improved since all parties agree that mandated switching is inefficient. Innovation and investment would be discouraged since the railroad that invests time and resources into innovation and new infrastructure could have those investments forcibly taken for the use of a competitor. And since the mandated switching is supposed to be available only to shippers that do not presently have a competitive intramodal or intermodal alternative, there is no reason to expect that lower rates would expand rail service by attracting new business from other transportation providers.

On the other hand, there is abundant evidence that mandated switching could harm the public through degraded rail service, additional costs, and by denying the rail industry the capital

necessary to maintain and expand the rail network. Mr. Fagan explains that net public value is created only if any public benefits from mandated switching outweigh the additional costs produced by mandated switching. As a matter of theory and empirical research, Mr. Fagan explains that it takes very little additional costs to wipe out any public benefits that might otherwise exist.

NITL and its supporters virtually ignored the question of the costs that would be created by mandated switching. Instead, NITL argues that the Board can deal with the question of service disruptions in individual proceedings under the proposed rule. But NITL is proposing sweeping changes in regulation, and NITL therefore has the burden to show that its proposed rule will not adversely affect rail service, particularly service to rail customers that would not be able to invoke the new mandatory switching rules. NITL cannot kick the issue down the road to be dealt with in individual proceedings. Nor is it appropriate to impose the burden of proof onto railroads in individual proceedings to demonstrate that service would be impaired by the rule change that NITL is proposing.

NITL also claims that the Board does not have to worry about the additional costs associated with inefficiency and service degradation because the actual amount of switching that would occur under its proposal would be “very small” or “minuscule.”⁴⁵ NITL’s theory that very little switching would occur appears to be based in large part on NITL’s acknowledgement that mandated switching would often be inefficient. From this observation, NITL draws the conclusion that railroads and shippers will seek to avoid those inefficiencies by simply agreeing on lower rates that preserves the role of the more efficient incumbent. Even if this were true, the Board could not justify, from a public interest perspective, the adoption of a regulatory option

⁴⁵ NITL Comments at 58.

that all parties agree would be inefficient and potentially damaging to rail service. The Board should not be promoting regulatory changes that all parties agree would create unnecessary inefficiencies if they were used.

Moreover, the Board cannot restructure existing commercial practices based on NITL's wishful thinking that mandated switching will be too limited to spawn operating problems. NITL has not provided meaningful evidence of how much traffic would divert to an alternative railroad, just supposition. As Eakin/Meitzen explain, NITL's reasoning is suspect. NITL's analysis of its proposal depends on two propositions that are difficult to reconcile. On the one hand, NITL appears to believe that railroads will offer massive rate reductions (more than 40% on average) to avoid switching. On the other hand, NITL maintains that switching will rarely, if ever, occur. It seems very unlikely that railroads would reduce rates in the manner NITL posits in the absence of a credible threat that switching would occur, and it seems equally unlikely that railroads would perceive a credible threat if actual switching rarely, if ever, occurred.

Eakin/Meitzen Reply V.S. at 8.

It is impossible to know in advance how much switching would occur if the NITL proposal were adopted and therefore how large the service disruptions and additional costs would be. But it is reasonable to assume that shippers vigorously seeking the right to force incumbent railroads to switch traffic to alternative carriers will actually use that right in practice. And it is clear that if switching occurs to a substantial extent, the result would be a major degradation in rail service and the imposition of additional costs. Mr. Rennicke's testimony in AAR's opening evidence showed the potentially serious nature of the service failures that could result if a substantial number of shippers were to exercise their right to require the incumbent to

IV. Conclusion: The Board Should Discontinue Consideration of the NITL Proposal

NITL's claim in its opening evidence that the Board now has enough information to treat this proceeding as an ANPR and to move directly to a rulemaking is empty rhetoric.⁴⁷ NITL makes this claim in its opening evidence and draws its conclusions without having had an opportunity to review the evidence submitted in this proceeding by any other party. In essence, NITL is contending that whatever other interested parties may have to say about its proposal is irrelevant, that the Board should ignore the submissions of other parties, and that nothing any other party could say could possibly have any bearing on a decision by the Board to move forward.

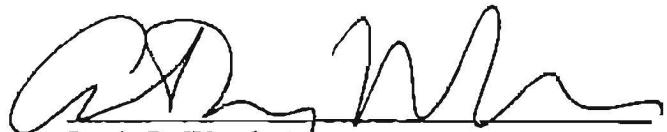
To the contrary, the record contains more than enough evidence that the NITL proposal is not in the public interest and that no further effort should be spent considering it. The Board initiated this proceeding because NITL failed to address crucial aspects regarding the impact of its proposal. Although in other rulemaking proceedings the Board has concluded that such a failure to support a petition for rulemaking justifies dismissal of the petition,⁴⁸ the Board did not dismiss NITL's petition here. Instead, the Board gave NITL a second chance while at the same time making clear that in the absence of the data it had requested it could not move forward. NITL and the supporters of its proposal have failed once again to provide information sufficient to make an affirmative assessment. NITL's proposal remains incomplete, ill-defined and lacking in an affirmative underlying rationale. There is no reason to give NITL further opportunity to correct the deficiencies in its proposal and evidence or to proceed further with consideration of NITL's petition.

⁴⁷ NITL Comments at 13-14.

⁴⁸ See, e.g., *Market Dominance Rulemaking Petition*, slip op. at 7.

The Board should deny NITL's Petition and discontinue further consideration of NITL's proposed changes to the Board's existing competitive access rules.

Respectfully submitted,



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**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**Petition for Rulemaking to Adopt)
Revised Competitive Switching) Docket No. EP 711
Rules)**

Verified Statement of

Michael R. Baranowski

and

Richard W. Brown

Filed: May 30, 2013

L INTRODUCTION

We are Michael R. Baranowski and Richard W. Brown of FTI Consulting, Inc. Mr. Baranowski is a Senior Managing Director and head of FTI Consulting's Network Industries Strategies (NIS) practice. Mr. Brown is a Director in the NIS practice and is responsible for conducting detailed railroad market studies for a variety of railroad clients. We filed a verified statement¹ as part of the Opening Comments of the Association of American Railroads (AAR) on March 1, 2013.² Details of our backgrounds and qualifications are set forth in Exhibits 1 and 2 to the opening verified statement. We have been asked by AAR to review and provide analysis on the opening comments filed with the Board by the National Industrial Transportation League (NITL).³ In Section II we describe shortcomings in NITL's analysis that demonstrate that NITL has substantially understated the number of carloads potentially affected by its proposal.

II. REVIEW OF ANALYSES PROVIDED IN PUBLIC COMMENTS

On its face, the NITL analysis quantifies something different from NITL's proposal to the Board.⁴ We explained in our opening verified statement that, under NITL's proposal, as characterized by NITL, mandatory switching by a Class I rail carrier would be imposed if four conditions were met: (1) the shipper (or group of shippers) is served by a single Class I rail carrier; (2) there is no effective intermodal or intramodal competition for the movements for

¹ Verified Statement of Michael R. Baranowski and Richard W. Brown (filed March 1, 2013) ("Baranowski/Brown V.S.").

² Opening Comments of the Association of American Railroads (filed March 1, 2013) ("AAR Comments").

³ Opening Submission of the National Industrial Transportation League (filed March 1, 2013) ("NITL Comments"). We reviewed opening comments filed by the U.S. Department of Transportation and the U.S. Department of Agriculture but, due to the lack of workpapers, we were unable to reproduce or verify their analyses.

⁴ Petition for Rulemaking of the National Industrial Transportation League (filed July 7, 2011) ("NITL Petition").

which mandatory switching is sought; (3) there is or can be “a working interchange” within a “reasonable distance” of the shipper’s facility; and (4) switching is safe and feasible, and does not “unduly hamper” existing service. As described below, NITL did not adhere to the elements of its own proposal and made numerous methodological choices that minimize the apparent impact of its proposal.

NITL modeled only some of its conclusive presumptions. For example, NITL did not identify carloads that would qualify under its 75% conclusive presumption.⁵ Even for those conclusive presumptions NITL modeled, it did not necessarily implement them as defined in its proposal, and it made choices that tended to limit the amount of qualifying traffic. As we explain below, in many cases, the logic underlying NITL’s identification of affected carloads is not readily discernible.

Further, NITL’s analysis did not address the potential for shippers who do not meet the conclusive presumption to nevertheless seek mandated switching. NITL’s proposal does not limit the access remedy only to shippers who meet the presumptions. Under NITL’s proposal a shipper could obtain mandated switching even if it did not satisfy a conclusive presumption. NITL, therefore, left out of its analysis a potentially large number of carloads. For example, there may be many situations where a shipper that is served only by a single railroad would have little difficulty demonstrating that it does not have intermodal alternatives and therefore lacks

⁵ Under NITL’s 75% rule, a lack of effective competition would be presumed if “the Class I carrier . . . has handled 75 percent or more of the freight volume transported of the movement(s) for which such switching is sought for the twelve month period prior to the petition.” NITL Petition at 67. Qualifying under this presumption effectively turns on whether the rail share of transportation (as opposed to transportation by other modes) for a given commodity/origin-destination combination exceeds 75%.

effective competition even if its rates are too low to satisfy the 240% R/VC conclusive presumption.⁶

NITL's estimate of potentially affected carloads is not understated simply because NITL left out important components of its proposal. NITL's quantification of the carloads it identified also suffers from methodological and data flaws. For example, NITL includes in its estimate some carloads at stations served by more than one carrier that would nonetheless qualify for mandatory switching because the shipper facility is itself served by only a single Class I carrier. NITL refers to this group as "captive at industry." While this portion of the NITL analysis covers traffic discussed but ultimately not included in our opening analysis, it is clear that NITL's rules for identifying such carloads suffer from the same infirmities (described below) as its analysis of carloads at stations served by only a single Class I railroad. As a result, NITL's "captive at industry" carload counts are most likely understated.

Overall, NITL has substantially understated the amount of traffic potentially subject to mandated switching under its own proposal.

The fact that NITL made methodological choices that resulted in an understated impact analysis not only illuminates NITL's motivations, but also highlights the data limitations we described in our opening statement that result in some inevitable degree of uncertainty regarding the impact of NITL's proposal. Given the nature of the waybill data that the Board made available to the parties, even the most objective impact analysis requires assumptions and will yield approximations. But unavoidable assumptions should not be confused with the deliberate understatements.

⁶ It appears unlikely that a shipper would be able to demonstrate a lack of effective competition if it could not meet NITL's alternative 75% conclusive presumption, but NITL's estimates do not include traffic that qualifies under that alternative presumption either.

We address NITL's analyses and assumptions under three basic categories: Traffic Characteristics, Station Identification, and Shipper Facilities Served by a Single Railroad.

A. Traffic Characteristics

1. **The 75% Rule.** NITL's proposal contains two conclusive presumptions relating to the absence of effective competition, the 240% R/VC rule and the 75% rule. NITL ignored the 75% rule and chose only to identify those carloads that would qualify for mandatory switching because their rates produce an R/VC of at least 240%.⁷ As we described on opening, there are data limitations that make it difficult to assess the effect of the 75% rule, but that certainly does not justify treating the presumption as if it would have no effect. The Board made available to the parties its 2010 (and subsequently 2011) confidential carload waybill sample (CWS), but the CWS does not identify shippers or provide data on non-rail shipments. It is therefore impossible to determine from the CWS whether a given movement would satisfy the 75% rule. To ensure that our analysis included the impact of the 75% rule, we adopted a default assumption that at stations served by a single rail carrier, the serving rail carrier is handling 75% or more of total shipper volumes. Baranowski/Brown V.S. at 3. Our assumption, while not precise, is clearly more reasonable than NITL's apparent assumption that the 75% rule can be ignored. As AAR described on opening, there are likely to be many situations where a rail carrier has a 75% share of transportation and that situation is likely to be much more common than having rates that exceed a 240% R/VC threshold. AAR Comments at 40-42. *See also* *Comments of Norfolk Southern Railway Company*, 47 (filed March 1, 2013) ("NS Comments")

⁷ NITL acknowledges this omission only in a footnote. NITL Comments at 7. Mr. Roman never expressly acknowledges that he does not address the 75% Rule at all. Verified Statement of Henry Julian Roman (filed Mar. 1, 2013) ("Roman V.S."). Although he describes his task as calculating "the number of carloads that would qualify for access," Roman V.S. at 4, which would presumably include the 75% rule, he ignores the 75% rule when actually presenting his results, describing them as "applying the 240% R/VC Threshold and the 30-mile distance." Roman V.S. at 29.

(discussing contract volume commitments). In addition, any shipper could adjust its transportation mix going forward to take advantage of the presumption.

2. CN, CP, and KCS Traffic. NITL chose to exclude CN, CP, and KCS traffic from its analysis. Although the Board recognized that commenters might wish to submit partial studies, it is obvious that doing so results in an understatement of the number of carloads potentially affected. Our analysis, which included CN, CP, and KCS traffic, presents a more complete picture of the potential impact of the NITL proposal.

3. Movements where the Incumbent Remains the Only Railroad at Origin or Destination. NITL's proposal provides that a mandatory switching order may be obtained as long as effective competition is lacking and as long as a shipper facility is located within a "reasonable" distance of an interchange. Nowhere does the NITL proposal link access for one end of a shipment to whether the other end is served by a single railroad or by multiple railroads. Nevertheless, NITL's analysis arbitrarily imposes a rule that what happens at the other end of a movement matters. The NITL analysis assumes that traffic originating or terminating at a newly-opened location would be unaffected by the new access rules if the other end of the movement remains closed on the incumbent carrier. Roman V.S. at 25-26. Excluding such shipments understates the potential impacts of NITL's proposed rules.

Our analysis on opening reasonably included movements of this type. The NITL proposal, on its face, contemplates that shippers *could* obtain a switching order for such movements. Given the many doubts about how the NITL proposal would be implemented in practice, it did not appear justified to exclude from consideration outcomes that the NITL proposal allows. Moreover, it is quite possible that shippers would choose to obtain a switching order in such circumstances. A shipper might wish to use a switching order to lay the foundation

for a challenge to bottleneck rates under the contract exception, for example. A shipper could also, conceivably, have reasons that it prefers for the long-haul portion of a movement to be handled by a railroad other than the incumbent.

In addition, there is clear potential for shippers to expand the scope of mandated switching by obtaining a mandatory switching order for one commodity/origin-destination combination and using it to obtain transportation to a different destination or from a different origin. The proposed NITL language certainly appears to limit an order to a specific "movement," and therefore to a specific commodity/origin-destination combination, but that limitation would be extremely difficult to enforce as a practical matter. Typically, the carrier performing the reciprocal switching spots empties from the non-serving carrier at the industry and picks up and delivers loads to the non-serving carrier without ever receiving full waybill information. Thus, the serving carrier would not have sufficient information to determine whether a shipper improperly exceeded a mandatory switching order by including movements that were not covered by the order. Nor is it clear what a railroad's remedy would be even if it were able to determine that a shipper was improperly diverting traffic under a mandatory switching order.

Our carload analysis focuses on the characteristics of each sole-served station in determining whether or not carloads would be affected by the proposed rule, which is more consistent with the actual language and likely impact of the NITL proposal.

B. Station Identification

1. Identification of Stations Served by a Single Class I Railroad.

Different methods exist for identifying and distinguishing between stations served by only a single Class I railroad ("closed" stations) and stations served by more than one railroad ("open" stations). The approach used by NITL overstates the number of stations served by more than one

railroad, thereby understating the number of stations that could be subject to a switching order under the NITL proposal. Specifically, the NITL analysis simplistically considers a station open when the Station Master shows multiple Class I carriers serving it. This occurs because the Station Master will show multiple railroads, even where only one carrier can originate or terminate traffic. For example, the Station Master would show multiple railroads at a station in instances where a second carrier only has trackage or operating rights through a station and no rights to serve the station. In our analysis, we followed a cleaner approach. Rather than attempting to identify open stations and assuming that the remaining stations were closed, we identified as closed stations those where only one carrier was shown as originating or terminating traffic in the CWS. This approach avoided the problem of classifying stations as open where the other carrier(s) do not have access to shippers along the route.

2. Reasonable Distance to an Interchange. NITL's proposal specifies that the distance to interchange will be presumed reasonable if a shipper facility is "within a radius of 30 miles of an interchange." NITL Petition at 68. Although there are obvious problems associated with using radial, or air miles, some of which were illustrated in the opening comments of AAR and its member railroads, that is what the NITL proposal calls for and NITL has not proposed any modifications. Nevertheless, NITL's analysis on opening departed from the language of its own proposal and used "rail" miles. This effectively reduced the distance to an interchange that NITL treated as "reasonable" and resulted in reporting fewer cars as qualifying for mandated switching. The approach we followed on opening – using a 30-mile radius – is consistent with the specific language of the NITL proposal and also reflects the likelihood that shippers within a 30 mile radius of working interchanges but more than 30 rail miles distant would be entitled to argue for access. NITL's analysis of its own data suggests that

the number of carloads potentially affected by the new rules varies substantially depending on what mileage is used, so it is clear that choosing to use “rail” miles rather than a 30-mile radius resulted in substantially fewer potentially affected cars. See NITL Comments at 44 (indicating that varying the distance to interchange by 10 miles produced more than a 20% swing in the number of affected carloads).

3. Identification of Potential Interchange Points. The NITL proposal speaks broadly of imposing mandatory switching at points where there “is or can be a working interchange.” NITL Petition at 65. NITL used a restrictive methodology for identifying potential interchange locations that is not consistent with this broad language. NITL includes as an interchange points in the CWS where railroads show interchanged traffic and any point that is jointly served by two carriers. While this includes all points where traffic was commercially interchanged during 2010 and some additional locations, it excludes other stations that Railinc affirmatively shows to be interchanges. Such stations would appear to qualify as potential interchange locations under the NITL proposal and excluding them had the effect of reducing the number of stations, and therefore carloads, for which NITL reported that a mandatory switching order could be obtained.

C. Shipper Facilities Served by a Single Class I Railroad at “Open” Stations

Under the NITL proposal, a shipper qualifies for mandated switching depending upon whether the shipper’s *facility* – rather than the station at which a shipper is served – is served by a single Class I railroad. As a result, shippers located at stations where there are multiple railroads may nevertheless qualify for mandated switching if the shipper facility itself is served only by a single Class I railroad. We pointed out on opening that our number of potentially affected carloads did not include carloads from stations served by more than one railroad. While we believe that the number of potentially qualifying carloads at such locations is likely quite

large, we were unable to develop a methodology for reliably identifying carloads of this type from the waybill data.

NITL purports to have identified such traffic by relying on volumes and R/VC ratios. There is no evidence NITL's standards are valid. NITL's R/VC based analysis essentially reasons that 240% is a "high" R/VC ratio and that carloads would only have a "high" R/VC ratio if the originating or terminating facility is served only by a single railroad. Establishing a 240% R/VC cutoff at jointly served stations is entirely arbitrary. NITL cannot demonstrate that shippers from the same jointly served stations with R/VCs below the 240% level always have multiple rail options. Indeed the record in this proceeding demonstrates that is not true.⁸ Nor has NITL shown that all shippers above that level have only a single rail option or otherwise lack competitive alternatives.⁹ In other words, there is no reason to believe that NITL's estimate of "captive at industry" traffic is meaningful since it almost certainly includes shippers who are not served by only one railroad and excludes shippers that are.

In all likelihood, NITL's approach to customers at open stations understates the number of potentially qualifying carloads associated with stations served by more than one railroad. As we noted above, NITL's analysis completely ignores the 75% rule. This applies both for its analysis of carloads at stations served by a single railroad and for its analysis of additional carloads at stations served by more than one railroad. Moreover, the 240% R/VC cutoff NITL uses does not capture the carloads that would qualify under the 75% rule and therefore understates the number of affected carloads.

⁸ See Comments of Roanoke Cement Co., at 5-6 (stating that Roanoke is served by only one railroad but has rates below 240%).

⁹ See M&G Polymers USA, LLC v. CSX Transportation, Inc., STB Docket No. NOR 42123 (served Sept. 27, 2102) (finding that railroad lacked market dominance on certain routes with rates over 240%).

NITL's study is not a reasoned analysis. Instead, in attempting to identify potentially qualifying carload at stations served by more than one railroad, NITL again modeled something other than its proposal: NITL effectively presented the carloads it believes would be affected if the Board simply ignored whether shippers are served by only one railroad and instead allowed mandated switching for shippers whose rates produced R/VC ratios above 240%.

III. CONCLUSION

Given the ambiguities in NITL's proposal and data limitations, it is difficult to develop a precise number of carloads that would be eligible for mandatory switching. Nevertheless, it is clear that modeling and methodological choices made by NITL in preparing its estimate result in a substantial understatement of the likely impact of its proposal.

VERIFICATION

I, Michael R. Baranowski, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 22 2013.

Michael R. Baranowski
Michael R. Baranowski

VERIFICATION

I, Richard W. Brown, verify under penalty of perjury under the laws of the United States
that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 28, 2013.



Richard W. Brown

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**STB EX PARTE NO. 711
PETITION FOR RULEMAKING TO ADOPT REVISED
COMPETITIVE SWITCHING RULES**

JOINT VERIFIED REPLY STATEMENT

**OF
B. KELLY EAKIN
AND
MARK E. MEITZEN
CHRISTENSEN ASSOCIATES**

MAY 30, 2013

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INTRODUCTION

We are B. Kelly Eakin and Mark E. Meitzen of Christensen Associates. We filed a Joint Verified Statement in support of the comments of the Association of American Railroads (AAR) in the initial phase of this case.¹ This Reply Statement responds to the opening comments and emphasizes the following points:

- The NITL proposal would create winners and losers among rail shippers, which has been confirmed by other parties in this proceeding, including NITL.
- The NITL proposal is redistributive in nature rather than efficiency improving and might reduce social welfare.
- Flaws in NITL's analysis of the price and revenue impacts of their proposal result in no useful information being provided to the Board on these issues.
- Cost-based rates such as the Canadian interswitching rates relied upon in the NITL analysis would result in economic distortions.
- No credible empirical evidence on the likelihood of traffic increases resulting from the NITL proposal has been provided in this proceeding.

THE NITL PROPOSAL'S CREATION OF WINNERS AND LOSERS IS CONFIRMED BY OTHER PARTIES

In our Initial Statement, we explained that the NITL mandatory switching proposal would be an asymmetric change in regulation that creates winners and losers—the proposal targets a select set of shippers in a select set of markets to be the beneficiaries of proposed mandatory switching rules. The creation of asymmetric impacts among shippers and railroads by the NITL proposal would occur across a number of dimensions.

¹ Joint Verified Statement of B. Kelly Eakin and Mark E. Meitzen, STB Ex Parte No. 711, March 1, 2013 ("Initial Statement").

To the extent switching occurs under the NITL proposal, not all of the costs created by the proposal would be borne by the beneficiaries, particularly costs created by any declines in service quality and railroad efficiency. The extra costs to the railroad system introduced by the proposal that are not incurred by the covered shippers (i.e., externalities) would be borne by other rail shippers who do not benefit from the NITL proposal and by railroads. The proposal is intended by NITL to confer rate reductions upon a select group of shippers, but would at the same time broadly add to and reallocate cost burdens among other shipper groups and rail service providers. Furthermore, long-term consequences could arise if reductions in railroad contribution lead to reductions in railroad investments.²

We also noted that excluded shippers would suffer a disadvantage in product market competition with other shippers, especially those excluded shippers who compete in the same product markets as covered shippers. Excluded shippers might also be competitively disadvantaged by the NITL proposal relative to: other firms in their industry that were not affected to the same extent or at all by any negative externalities caused by actual switching generated by the proposal; and/or producers of other substitutable goods. This competitive disadvantage might have consequences for export markets as the locations of these other firms in the same industry or in substitute goods industries may be in other countries. The change in competitive conditions between covered and excluded shippers could lead to an unintended reallocation of

² Initial Statement, pp. 6-7.

resources and markets, with excluded shippers being competitively disadvantaged in the product markets in which they participate.³

NITL contemplates that the small subset of shippers who can obtain mandatory switching will receive significant rate decreases. Under NITL's "full competition" scenario, NITL's estimated impacts translate into an average decrease in rail rates of 44 percent for benefitted shippers.⁴ As we discuss below, there are fundamental errors in NITL's analysis of the level to which rates could be expected to fall and, therefore, with NITL's entire analysis of the likely revenue loss to railroads. Without accepting that NITL's numbers are correct, it is worth noting the magnitude of the one-sided benefit that NITL believes covered shippers would obtain. Furthermore, as discussed above, covered shippers are likely to gain competitive advantage (and excluded shippers competitive disadvantage) in product markets. Rail rate declines of the size anticipated by NITL could create a significant change in the competitive balance of these product markets.

Our observation that there would be a skewed distribution of benefits created by the NITL proposal has been acknowledged in the comments of various parties in this proceeding, including NITL. On page 57 of their initial comments, NITL states that:

³ Initial Statement, pp. 7-8.

⁴ See Opening Submission of the National Industrial Transportation League, STB Ex Parte No. 711, March 1, 2013 ("NITL Submission"), p. 53, Table 14; and Verified Statement of Henry Julian Roman, March 1, 2013 ("Roman Statement"), p. 32, Table 7, which shows potentially impacted railroad gross revenue of \$2,929,210,096 and Shipper Savings/Carrier Revenue Reduction of \$1,293,650,873. Dividing this revenue reduction by the base of impacted gross revenues yields a 44 percent reduction:
\$1,293,650,873/\$2,929,210,097 = .4416.

There are many, many more captive shippers on the nation's railroads than the number of captive shippers that will potentially qualify for competitive switching under the CSP.⁵

As noted by the American Chemistry Council, chemical shippers expect to be major beneficiaries of the NITL proposal:

Chemical shipments have the largest potential savings of any commodity group⁶
...

On the other hand, shippers of agricultural commodities anticipate they would see little benefit from the NITL proposal, as noted by the National Grain and Feed Association:

[T]he proposal as written will have little beneficial application to NGFA Commodity rail shippers.⁷

The U.S. Department of Agriculture agrees:

Agricultural shippers have indicated to USDA they are concerned the NITL proposal would benefit too few grain and oilseed shippers.⁸

While parties anticipate that only certain groups would benefit from the NITL proposal, there is no recognition by proposal advocates that others would be harmed by the proposal. In fact, NITL asserts that, "The League strongly believes that the regulatory and economic impacts on captive shippers not covered by the CSP would be nil."⁹ It does not appear that any party favoring the NITL proposal has recognized or acknowledged the potential harms we have discussed, including: network service quality

⁵ NITL Submission, p. 57. Also see Roman Statement, p. 47.

⁶ Comments of the American Chemistry Council, STB Ex Parte No. 711, March 1, 2013, p. 5.

⁷ Joint Opening Submission of the National Grain and Feed Association, the Agricultural Retailers Association, National Barley Growers Association, USA Rice Federation, National Oilseed Processors Association, the National Chicken Council, National Association of Wheat Growers, National Council of Farmer Cooperatives, and National Corn Growers Association, STB Ex Parte No. 711, March 1, 2013, p. 7.

⁸ Comments of the U.S. Department of Agriculture, STB Ex Parte No. 711, March 1, 2013, p. 5.

⁹ NITL Submission, p. 56 (emphasis added).

issues and the creation of negative externalities; potential competitive product market disadvantages and market shifts; and reduced railroad investment and diminished investment incentives that may cause long-term service and performance issues.

THE NTL PROPOSAL REPRESENTS USE OF THE REGULATORY PROCESS FOR THE PURPOSE OF REDISTRIBUTION

The creation of winners and losers that would result from the NTL proposal can be put in the context of the economic theory of regulation. The economic literature contains a robust body of work on the causes and consequences of regulation.¹⁰ At one end of the discussion is the view that regulation is driven by the public interest.¹¹ In the public interest view, unregulated market failures reduce social welfare ultimately leading to regulatory intervention that increases social welfare. At the other end of the discussion is the view that regulation is driven by private interests attempting to redistribute value.¹² This view holds that interest groups seek the transfer of economic rents to their pockets, regardless of the impacts on social welfare.

¹⁰ A comprehensive review of much of this literature can be found in Johan den Hertog, "Economic Theories of Regulation," Chapter 1 in *Regulation and Economics*, Roger J. Van den Bergh and Alessio M. Pacces (eds.), Edward Elgar Publishing, 2012.

¹¹ The public interest theory of regulation can be traced to A.C. Pigou (1920, pp. 293-299) *The Economics of Welfare*, London: Macmillan and Co. The public interest theory underlies much of the mid-twentieth century literature on public utility regulation. See for example, J.C. Bonbright (1961) *Principles of Public Utility Rates*, New York: Columbia University Press.

¹² Notable papers on the private interest theory of regulation include: George J. Stigler "The Theory of Economic Regulation", *Bell Journal of Economics and Management Science* Vol. 2, No. 1 (Spring 1971), pp. 3-21; Richard A. Posner, "Theories of Economic Regulation", *The Bell Journal of Economics and Management Science*, Vol. 5, No. 2 (1974), pp. 335-358; Sam Peltzman, "Towards a More General Theory of Regulation," *Journal of Law and Economics*, Vol. 19 (1976), pp. 211-240; and Gary S. Becker, "A Theory of Competition Among Pressure Groups for Political Influence," *The Quarterly Journal of Economics*, Vol. 98, No. 3 (Aug., 1983), p. 371-400.

Unfortunately, but clearly, the mandatory switching proposal is driven by the redistribution motive rather than being in the public interest. Two factors are particularly revealing of the redistribution objective of the mandatory switching proposal. First, the proposal is intended to convey substantial rate benefits to a small group with the costs being borne by a large group of non-beneficiaries. This is precisely the result predicted by the redistributive theories of regulation. For example, Becker argues that “politically successful groups tend to be small relative to the size of the groups taxed to pay their subsidies.”¹³ The concentration of substantial rate benefits makes the lobbying effort worth it while the diffusion of the cost discourages resistance to the change by individual non-beneficiaries. In short, the greater the concentration of benefit from a regulation and the more diffuse the burden on non-beneficiaries, the louder the alarm bell should sound that the proposed regulation is a redistribution that is not in the public interest.

Second, the evidence indicates that there will be little, if any, increase in traffic as a result of the mandatory switching proposal.¹⁴ This means there is little or no resource reallocation and no source of social welfare gain. That is, the impact is a redistribution of value rather than an increase in economic efficiency. In fact, by introducing costs that fall on non-beneficiaries, the proposal may actually reduce social welfare. Furthermore, as we pointed out in our Initial Statement, to the extent that there is some demand response by the beneficiaries, the adverse impact on railroad

¹³ Gary S. Becker, “A Theory of Competition Among Pressure Groups for Political Influence,” *The Quarterly Journal of Economics*, Vol. 98, No. 3 (Aug., 1983), p. 385.

¹⁴ See discussion at 14-15, below.

contribution worsens.¹⁵ This means that ultimately the “tax” on non-beneficiaries increases.

NITL’S ANALYSIS OF THE PRICE AND REVENUE IMPACTS OF THEIR PROPOSAL IS FLAWED AND DOES NOT PROVIDE SUPPORT FOR ITS PROPOSAL

NITL assumes prices for covered shippers would fall as a result of the proposal but does not elaborate on how market mechanisms would produce this result. NITL’s model for how its proposal would affect railroad behavior appears to be incomplete and internally inconsistent. For example, a key assertion in NITL’s overall impact analysis is that very little switching will occur.¹⁶ NITL bases this assertion on observation of the Canadian market, but also appears to recognize that introducing a switch into a movement is inefficient¹⁷ and that adverse impacts on the efficient operation of the rail network would flow from diversion of traffic from the incumbent carrier.¹⁸ NITL concludes that “[i]n all likelihood, traffic will be actually switched . . . primarily when the competing carrier is able to offer a more efficient or direct route.”¹⁹ According to NITL this will be a rare event,²⁰ presumably because railroads generally provide the most efficient routing in the first place. This admission confirms the private interest

¹⁵ Initial Statement, p. 16.

¹⁶ For example, see NITL Submission, p. 60.

¹⁷ NITL Submission, p. 49.

¹⁸ NITL Submission, p. 59.

¹⁹ NITL Submission, p. 63 (emphasis in original).

²⁰ See NITL Submission, p. 60. Citing Canadian experience, NITL states that “Less than one-tenth of the total traffic that qualifies for interswitching in Canada is actually interswitched and moves over the new competitive route,” and further asserts that “There is no reason to believe that the same dynamic would not take place in the United States under the CSP.”

motivation behind the NITL proposal. That is, the objective is redistributing value rather than improving market performance.

At the same time, NITL contends that “the incumbent carrier has a huge incentive to keep the business,”²¹ which presumably is the mechanism by which rates would be driven down. However, if actual switching, is indeed, a rare event, is there really a credible threat of losing traffic that would create a “huge” incentive for the incumbent to lower rates? As a matter of logic, it would seem that this incentive only arises if there is a real possibility – a credible threat – that switching will occur and the incumbent could actually lose traffic and contribution. It is difficult to reconcile NITL’s notion that switching will rarely, if ever, occur, with NITL’s notion that the threat of switching is sufficiently real to force carriers to lower prices by NITL’s asserted average of 44 percent.

Another missing piece in the NITL analysis is the role of mandated access rates in the operation of NITL’s model. NITL does not explicitly model the effect of mandated access rates on market behavior or outcomes, it simply uses its assumed access rate (discussed in next section) for the mechanical calculation of carload and revenue impacts. This approach misses important parts of the picture. For example, if mandated access rates are set below rates that railroads would negotiate, there would be an amount of switching greater than the optimal level (which would adversely impact network efficiency and likely create negative externalities) or, if NITL’s assertion that only the threat of switching is necessary to create rate reductions, there would be a

²¹ NITL Submission, p. 60 (emphasis in original).

transfer of wealth from railroads to the small select set of benefitted shippers. In fact, it seems likely that the only way for covered shippers to receive an average 44 percent reduction in their rates is to set the mandatory switching fee artificially below the fee that would have been voluntarily negotiated between profit maximizing railroads that have optimized their operations and performance. In essence, this would amount to mandated rate reductions on eligible traffic.

The gaps in Mr. Roman's explanation of how and why rates would fall under the NITL proposal are compounded by errors and inconsistencies in his attempt to quantify the extent of anticipated rate decreases from the proposal. Mr. Roman presents two estimates, one for what he labels "full" competition scenario and the other for what he labels "reduced" competition. Mr. Roman begins by determining, for each Class I railroad, the average R/VC ratio at the 5-digit commodity code by mileage range for all single line movements with R/VC ratios below 180%. Mr. Roman asserts that this below-180% R/VC traffic is each railroad's "competitive" traffic. Multiplying this average R/VC by a movement's variable cost produces his "Competitive Benchmark Rate."²² To assess whether a particular covered shipper movement will benefit from a rate reduction caused by the NITL proposal, a covered movement's Waybill rate is compared to the sum of its competitive benchmark rate and the assumed access fee (discussed in the next section).²³ If the Waybill rate is greater than this sum, it is assumed that the rate will be reduced to the value of this sum.²⁴

²² Roman Statement, pp. 27-28.

²³ Thus, even this methodology highlights the importance of the access fee.

²⁴ Roman Statement, pp. 30-31.

Mr. Roman follows a similar approach for calculating results under “reduced” competition. Mr. Roman employs a model of assumed duopoly behavior to develop benchmark R/VC ratios for this hypothesized “reduced competition” outcome. A critical part of this second approach is calculating what Mr. Roman terms a “captive” R/VC, which is the analogue of the “competitive” R/VC calculated on all traffic with an R/VC ratio *above* 180%. The “competitive” and “captive” R/VCs are then used in a formula to derive a “duopoly” R/VC. Multiplying the “duopoly” R/VC by the variable cost of potentially impacted movements results in his “duopoly competition” benchmark rate. Similar to the full competition scenario, a covered shipper’s Waybill rate is compared to the sum of the duopoly competition rate and the access fee to determine whether the covered shipment will enjoy a lower rate from the NITL proposal under “duopoly competition.”²⁵

The reasoning behind Mr. Roman’s calculations is faulty. Mr. Roman’s key assumption is that 180% R/VC is a hard delineation between traffic that is subject to “full competition” and traffic that is “captive.” Neither economic theory nor the statute justifies this treatment. By itself, there is no economic content in the 180% R/VC as a measure of the extent of competition. There is no economic basis for assuming that traffic below 180% R/VC is subject to competitive forces and traffic above 180% R/VC is not. The statute treats 180% R/VC as the point at which inquiries into market power can begin, not as a demarcation between traffic that is free from the exercise of market power and traffic that is subject to the exercise of market power. While traffic that has

²⁵ Roman Statement, pp. 36-38.

an R/VC ratio of less than 180 is conclusively presumed to be free of the exercise of market power, even for R/VC ratios above that level the statute requires an economic analysis to determine whether a railroad can exercise market power.

It cannot be presumed that "full" competition only exists when R/VC ratios are below 180. From an economic perspective, this is an arbitrary standard for determining full competition. To the extent "full" competition actually exists at R/VC ratios above 180, the same competitive process determines price both above and below R/VC 180, and Mr. Roman's distinction between "full" competition and "duopoly" competition is incorrect and misleading.

Mr. Roman's calculations are based on an arbitrary and unsubstantiated assumption and cannot be viewed as producing meaningful estimates. Reliable estimates of how rate levels would change under mandated switching could only be developed based on detailed market information, much of which is unknown or could not be fully developed.²⁶ There is no reason to believe that Mr. Roman has correctly predicted the extent to which rates would fall. Nonetheless, Mr. Roman's methodology – while flawed – suggests that rate reductions could be very significant.

Finally, as we discussed in our Initial Statement, to the extent there are price and quantity impacts created by the NITL proposal, not only will there be revenue reductions for the railroads, but there will also be contribution reductions (both revenue reductions and cost increases) that represent the true economic impact of the proposal

²⁶ We described similar difficulties in assessing the extent to which additional traffic would offset revenue losses due to mandated switching in our Initial Statement, at 13-14.

on railroads.²⁷ This issue of contribution reductions and the impact on railroads is not addressed by NITL or Mr. Roman. As we demonstrated in the Appendix of our Initial Statement, if railroads are maximizing profit, then any price change resulting from a change in regulation decreases contribution generated from the regulated market. If the railroad is already subject to regulation that results in a price less than the unconstrained profit-maximizing price, then regulation that further lowers price results in further loss of contribution.²⁸ NITL acknowledges a railroad's goal to optimize pricing behavior —e.g., "Presumably, as rational economic actors, rail carriers have already priced even captive traffic at a level that produces the greatest revenue given the shipper's options. Further rate increases would not produce further revenue gains, otherwise the railroads would have taken them already."²⁹ Furthermore, the adverse effects on contribution of deviations from optimal pricing behavior also apply when prices are forced further below optimal levels by regulatory constraints.

COST-BASED APPROACHES TO RATE SETTING ARE ECONOMICALLY ARBITRARY AND LIKELY PRODUCE ECONOMICALLY INEFFICIENT OUTCOMES

NITL does not sponsor a specific access pricing methodology, but uses the average Canadian interswitching fee to develop what is essentially a cost-based estimate of access fee levels that would supposedly pertain under mandatory switching. USDA, however, explicitly advocates "using the average of Canadian inter-switching

²⁷ Initial Statement, p. 15.

²⁸ Initial Statement, Appendix.

²⁹ NITL Submission, p. 57. As we have pointed out, firms engage in optimal pricing behavior with respect to profit/contribution maximization, not revenue maximization. Thus, while NITL acknowledges that railroads engage in economically rational pricing behavior, they have incorrectly identified the object of railroads' optimizing behavior.

rates for the access price.³⁰ NITL describes the Canadian interswitching rates upon which its proposal is modeled as follows:

In establishing interswitching rates, the Agency uses system-wide average company costs, which incorporate a contribution to constant costs.³¹

We have discussed the undesirable economic properties of cost-based rates in previous submissions to the Board and elsewhere.³² For example, in our EP 705 Reply Statement, we cited and reiterated our assessment of cost-based pricing found in our STB study, including an inconsistency with differential pricing:³³

We discussed the drawbacks of cost-based pricing in our November 2008 report in the context of proposed cost standards contained in Senate Bill 953. The same analysis and criticisms apply to using cost-based methods for setting access rates. We noted that cost-based pricing methods (also known as fully distributed costing (FDC)) have been criticized in the economics literature for at least 25 years, and that one of the earliest economic criticisms of FDC methods came in a 1962 statement presenting the consensus of ten economists regarding railroad costs and pricing. Importantly, we noted that one of the fundamental drawbacks of cost-based methods ... for setting railroad rates is that such methods are inconsistent with differential (i.e., Ramsey) pricing.

³⁰ Comments of the U.S. Department of Agriculture, STB Ex Parte No. 711, March 1, 2013 ("USDA Comments"), p. 20.

³¹ NITL Submission, p. 25.

³² For example, see Joint Verified Reply Statement of B. Kelly Eakin and Mark E. Meltzen, STB Ex Parte No. 705, May 27, 2011; Christensen 2008 STB Study; Mark E. Meltzen, "The Shared Cost Problem and Cash Cow Economics: Who Gets Milked?" *Public Utilities Fortnightly*, April 1, 1991; and A.C. Larson and M.E. Meltzen, "Recent State Legislation for Telecommunications: Brave New World or Bad Public Utility Law?" *George Mason University Law Review*, Vol. 14, No. 1, Fall 1991.

³³ Joint Verified Reply Statement of B. Kelly Eakin and Mark E. Meltzen, STB Ex Parte No. 705, May 27, 2011, pp. 15-16, citing Christensen 2008, pp. 22-20 to 22-21; Alfred E. Kahn, "The Uneasy Marriage of Regulation and Competition," *Telematics*, Vol. 1, 1984, pp. 1-17; Alfred E. Kahn and William B. Shew, "Current Issues in Telecommunications Regulation: Pricing," *Yale Journal on Regulation*, 4, pp. 191-256; and William J. Baumol, Burton N. Behling, James C. Bonbright, Yale Brozen, Joel Dean, Ford K. Edwards, Calvin B. Hoover, Dudley F. Pegrum, Merrill J. Roberts, and Earnest W. Williams, Jr., "The Role of Cost in the Minimum Pricing of Railroad Services," *The Journal of Business*, 36(3), 1962, pp. 348-351; and Ronald R. Braeutigam, "An Analysis of Fully Distributed Cost Pricing in Regulated Industries," *Bell Journal of Economics*, Vol. 11, 1980, pp. 182-196.

Cost-based pricing methods (i.e., fully distributed costing (FDC) methods) are generally regarded as economically arbitrary because the overhead or non-variable cost loading that is added to marginal cost has no unique economic determinant and, typically, does not consider demand-side responsiveness to prices. Cost-based approaches are often determined on non-market criteria, such as political bargaining power and fairness considerations, often producing outcomes that are economically inefficient. In contrast, Ramsey pricing is based on a markup over marginal cost that is inversely related to demand elasticity and is considered "second best" to marginal cost pricing in terms of economic efficiency.³⁴ NITL witness Mr. Maville illustrates that the arbitrary nature of cost-based rates often creates a bargaining situation between interested parties whose outcome may be based on criteria that do not account for market dynamics:

The users of interswitching services have generally supported the continued use of a contribution level of 7.5 percent over railway costs ... Conversely, the providers of interswitching services – the railways – have generally maintained that they should receive a compensation that provide for full recovery of their constant costs.³⁴

Moreover, in the current application, there is no guarantee that cost-based rates will equal or approximate rates that would be negotiated by the railroads involved.³⁵ This has obvious implications for the economically efficient amount of switching that would occur. For example, if the Board could impose an access fee, and if the cost-

³⁴ Maville Statement, p. 17.

³⁵ NITL discusses existing switching charges (NITL Submission, pp 20-22) and may intend to suggest that existing charges could be a model for setting access fees. Such fees represent market based rates that railroads freely establish for services they choose to provide. However, railroads would face different circumstance where the switching was mandated rather than voluntary.

based rates imposed under mandatory switching were artificially lower than the rate parties would have voluntarily agreed to, an amount of switching greater than the optimal level would occur and network efficiency would diminish.

VALID EMPIRICAL EVIDENCE HAS NOT BEEN PRODUCED ON THE LIKELIHOOD THAT THE NITL PROPOSAL WILL CAUSE TRAFFIC INCREASES

NITL asserts that:

Although it is impossible to make exact predictions about the amount of traffic that U.S. rail carriers might expect to gain ..., there is no doubt that more competition would result in greater pressure to operate more efficiently and a likely increase in traffic that would offset at least part of the loss of railroad monopoly power ...³⁶

As we discussed in our Initial Statement, any traffic gains that might result from the NITL proposal would be confined to the small pool of shippers who benefit from the proposal, with the traffic of non-beneficiary shippers either staying the same or declining.³⁷ This is true because the proposal could only generate additional traffic from the limited group of shippers who can obtain rate reductions because they are eligible for switching. It would have no positive effect on volumes from other shippers, but could have a negative impact on their volumes because of service degradation or because favored shippers are able to increase their market share by diverting business from their disfavored competitors. We noted that a number of factors would be affected by the NITL proposal that would mitigate increases in covered shipper demand for rail service and railroads' ability to provide increased quantities of service, and that:

³⁶ NITL Submission, p. 56.

³⁷ Initial Statement, p. 10.

The likelihood that the traffic of covered shippers would increase depends on the magnitude of the effects produced by these factors and, thus, would need to be evaluated to determine the impact of the NITL proposal on covered shipper traffic. The mitigating factors include the impact of the NITL proposal on: service quality; railroad revenues, costs and profits; the amount of investment required to maintain or increase traffic levels; and the ability and incentives of railroads to undertake investments.³⁸

We also discussed that to determine whether there would be an overall increase in traffic (and revenue) as a result of the NITL proposal, an extensive amount of information would be needed, including:³⁹

- Amount of traffic for both covered and excluded shippers;
- Elasticities of demand for both covered and excluded shippers (these may vary by commodity and/or geography);
- The impacts of other non-price factors affecting shippers' demand for rail transportation;
- The factors affecting railroads' ability to provide service and maintain service quality;
- Rate reductions caused by the NITL proposal for covered shippers;
- Rate impacts on excluded shippers.

We opined that some of this information is unknown or cannot be fully developed and, thus, a meaningful quantitative response to the Board's question cannot be provided.⁴⁰ Our opinion has been confirmed: despite the Board's call for empirical evidence, neither NITL nor NITL witness Mr. Roman provides a meaningful quantification of traffic increases under the NITL proposal. While NITL asserts that there will likely be traffic increases, no substantive analysis of the type outlined above is

³⁸ Initial Statement, pp. 10-11.

³⁹ Initial Statement, p. 14.

⁴⁰ Initial Statement, p. 14.

provided to support this assertion. Similarly, as we document below, Mr. Roman provides no credible evidence of traffic gains that would likely be produced by the NITL proposal.

Mr. Roman's example of the NITL proposal creating an incentive for a shift of traffic from truck to rail is not relevant here and, in fact, is logically inconsistent with the NITL proposal because traffic with competitive options would supposedly not be eligible for mandatory switching. Mr. Roman states that his rail shipper surveys show that high rate increases of railroads are causing traffic to leave rail and go to long haul trucking and that "Lower rail rates on impacted movements under the CSP can help reverse this trend and help traffic switch back from truck to rail."⁴¹ However, by construction, this is not possible for traffic that is eligible under the NITL proposal as it is presumed that eligible traffic has "no effective inter- or intra-modal competition."⁴²

Mr. Roman's other examples of various commodity shipments by Canadian and U.S. railroads into Chicago provide no evidence of the impact of the NITL proposal on rail traffic volumes.⁴³ Mr. Roman observes that traffic in these commodities from Canada to Chicago increased between 2005 and 2011. Without any supporting analysis, he asserts that "[p]art of the reason for this is that Canadian production has had lower rail rate increases than U.S. production."⁴⁴ In these examples, Mr. Roman has not established any causation for the Canadian traffic increases and the role, if any, rail

⁴¹ Roman Statement, p. 43.

⁴² Roman Statement, p. 3.

⁴³ Roman Statement, pp. 44-47.

⁴⁴ Roman Statement, p. 44.

rates had in this increase. He does not explain or examine the role of rail rates in shippers' transportation decisions, nor does he look into other factors that would have caused the increase in Canadian shipments. The only thing his examples demonstrate is that there was a growth in Canadian shipments. However, while Mr. Roman states his examples in terms of percent changes, an examination of the levels of rates shows some anomalies that indicate it is factors other than rate changes that are causing changes in carloads. For example, in Table 18, Alberta has the highest levels of rates yet the greatest percent increase in carloads.⁴⁵ In summary, Mr. Roman's examples have no theoretical basis, are filled with inconsistencies and contradictions, and provide no quantitative evidence of the impact of the NITL proposal on traffic volumes.

Mr. Roman's firm, Escalation Consultants, also performed an analysis of the impact of the NITL proposal on agricultural shippers for the U.S. Department of Agriculture ("USDA Analysis").⁴⁶ USDA asserts that new traffic would result from the proposal based on a claimed shift in shipper elasticity of demand due to the introduction of a second carrier, but fails to support its claims. USDA posits that "The elasticity of demand for freight rail transportation for corn and wheat is between -1.2 and -0.5."⁴⁷ As support for this range of elasticities, an article by Oum, et. al., is cited. However, that article does not appear to report separately demand elasticities for corn and wheat rail transportation. Table 6 of the article (p. 151) contains demand elasticities for rail freight for select commodities. Corn and wheat is not a separate

⁴⁵ Roman Statement, p. 46.

⁴⁶ USDA Comments, pp. 15-17.

⁴⁷ USDA Comments, p. 15.

category in the table; the closest category reported in Table 6 is “Food products.” The range of elasticities reported for “Food products” is between -0.2 to -2.58. On page 153 of the article, a range of -0.5 to -1.2 is reported. However, this represents the demand elasticity of steel (-0.5) and fresh fruits (-1.2). Thus, it is not at all clear where the range of corn and wheat demand elasticities found in the USDA Comments come from. Based on its unsubstantiated range of elasticities, the USDA Analysis speculates that shipper elasticity of demand would “increase from -1.2 to -0.6 with the introduction of a second rail carrier.”⁴⁸

Even if USDA’s elasticity analysis could be untangled or substantiated, it is not clear what the source of the additional carloads created by the NITL proposal would be. Tables 6 through 11 of the USDA Analysis predict that agricultural carloads will increase anywhere from 11 percent to 26 percent as a result of the NITL proposal. The question is where will these carloads come from? Presumably, all covered agricultural shippers who are eligible for mandatory switching and their corresponding carloads are contained in the base case scenarios. Thus, there will be no additional agricultural shippers who are able to respond to any rail price decreases created by the NITL proposal—additional carloads will not (and, by design, cannot) be forthcoming from additional shippers. Moreover, according to the NITL proposal, there is no effective inter- or intra-modal competition for these shipments and, therefore, these carloads cannot be presumed to come from existing truck or barge traffic. Do covered

⁴⁸ USDA Comments, p. 15. The movement from -1.2 to -0.6 is actually a decrease in the elasticity of demand, not an increase, as it changes from *elastic* demand (an absolute value greater than 1.0) to *inelastic* demand (an absolute value less than 1.0).

agricultural shippers have sufficient inventories of commodities in storage to create these increases? Will covered agricultural shippers plant more crops in subsequent years that generate these increases? Without more information on questions such as these, the increased traffic scenario of the USDA Analysis is not credible.

CONCLUSION

The observation in our Initial Statement that the NITL proposal would create winners and losers among rail shippers has been confirmed by other parties in this proceeding, including NITL. It is clear from the statements of NITL and other parties that submitted initial comments that a select group of shippers would be eligible for mandatory switching. Furthermore, this select group of shippers would be disproportionately comprised of chemical shippers, while most shippers of agricultural commodities would not be eligible for mandatory switching. This is a classic example of an interested party using the regulatory process for the purpose of redistribution for private, not public benefits: the NITL proposal is redistributive in nature rather than efficiency improving and may actually reduce social welfare.

NITL's analysis of the price and revenue impacts is flawed and cannot be relied on for a quantification of the likely impacts of their proposal. Among the more prominent weaknesses in their analysis are: the questionable assumption that the threat of switching is sufficient to create rate reductions for eligible shippers; the failure to integrate into their model mandated access rates and their effect on market behavior; and the economically incorrect use of the R/VC ratio of 180 as an absolute point of demarcation between competitive and non-competitive behavior by railroads.

Furthermore, cost-based (i.e., FDC) access rates, such as the Canadian interswitching rate, are typically set in an economically arbitrary manner that do not consider demand-side responsiveness, have no necessary relationship to rates that would be negotiated in market settings and, thus, would likely produce economically inefficient outcomes. For example, if the cost-based rates imposed under mandatory switching are artificially lower than the rate railroads would have voluntarily agreed to, an amount of switching greater than the optimal level would occur and network efficiency would be affected.

Finally, no valid empirical evidence has been produced on the likelihood that the NITL proposal would result in traffic increases for railroads. As we discussed in our Initial Statement, an extensive amount of information would be needed to determine whether the NITL proposal would result in an overall increase in railroad traffic. However, we have demonstrated that no other party, including NITL and NITL witness Mr. Roman, has provided a meaningful basis for concluding that traffic increases would occur or a meaningful quantification of any traffic increases produced by the NITL proposal.

VERIFICATION

I, B. Kelly Eakin, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 28, 2013.

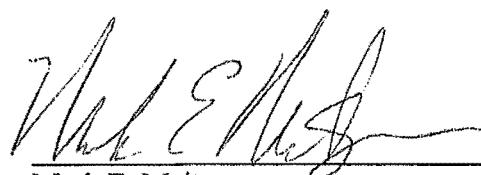


B. Kelly Eakin

VERIFICATION

I, Mark E. Meitzen, verify under penalty of perjury under the laws of the United States
that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 28, 2013.



Mark E. Meitzen

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

Ex Parte No. 711

**PETITION FOR RULEMAKING TO
ADOPT REVISED COMPETITIVE SWITCHING RULES**

**Reply Verified Statement
of
William J. Rennicke
Partner
Oliver Wyman, Inc.**

May 30, 2013

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Statement of William J. Rennicke, Partner, Oliver Wyman

I. Introduction

I am William J. Rennicke, a Partner with Oliver Wyman, Inc. On March 1, 2013, I provided a Verified Statement to the Surface Transportation Board in the matter of Docket No. Ex Parte 711, Petition for Rulemaking to Adopt Revised Competitive Switching Rules. My qualifications were provided as part of my original statement.

After reviewing the statements submitted by other interested parties in this matter, I have provided herein reply comments concerning the following issues:

- My opening evidence focused on the adverse impact on rail service that would result from introducing mandated switching as proposed by the National Industrial Transportation League (NITL). In its opening comments, the NITL acknowledges that mandated switching would be inefficient in most cases. The NITL claims, however, that the Board should not worry about such service impacts because relatively little additional switching will actually occur. I explain that the NITL's claim that the introduction of a new mandated switching regime will not actually lead to a significant amount of additional switching is based on nothing more than speculation and wishful thinking.
- While the amount of switching that would result from the NITL's proposal is impossible to predict precisely, it is clear that the amount of additional switching could be very large. As I demonstrated in my Verified Statement, even a relatively small amount of additional switching at locations that are near capacity would create a serious risk that rail service for all shippers would be adversely affected, including rail service for those shippers for whom mandated switching would not be available. History shows that congestion at such local points can spread to cause wider problems on a railroad network, leading to severe service

disruptions. I explain that it would not be in the public interest for the Board to take the risk of a severe adverse impact on rail service just to provide rate reductions for a sub-group of shippers that already have seen substantial rate reductions under the current market-based regulatory system.

- I also explain that, in addition to increasing the risk of a serious breakdown in rail service, the NITL proposal would have a severe impact on the railroads' ability to continue making infrastructure investments to improve service and meet increasing demands for service. I show that when the NITL's own assumptions concerning the financial impact of its plan on the railroads are put into the proper perspective, by comparing lost revenue as a result of mandated switching to the amount of annual capital expenditures by the railroad industry, it is clear that the money available for infrastructure spending would be substantially curtailed. The NITL's comparison of lost revenues to gross revenues is meaningless in assessing the impact of its proposal on infrastructure investment. Moreover, when more realistic estimates are made of the scope of the NITL proposal, and when the potential costs, both direct and indirect, of the NITL proposal are considered, the financial impact on the railroads could be devastating.
- Finally, I address the NITL's unsupported claim that reduced rates resulting from the NITL proposal would produce additional rail traffic that would offset the railroads' revenue losses. There is no reason to believe that mandated switching would lead to any diversion of traffic to railroads from other transportation modes, and there is no evidence that would suggest that mandated switching would lead to an increase in transportation demand that would come close to replacing the revenues lost as a result of mandated switching.

II. The NITL's Claim That the Quality of Rail Service Would Be Unaffected by Its Proposal Is Without Any Support

In my opening Verified Statement, I focused on the adverse service impacts of mandated switching. I explained that the NITL proposal would create conditions that in the past have caused significant service disruptions. If additional switching is imposed on a railroad, the quality of rail service will decline, and the decline in service could be potentially far reaching and severe. Among other things, I explained that rail service would be severely affected as a result of the following:

- Loss of service reliability due to substituting complex, multi-carrier routes that include many more events during which delays and service failures can occur, in lieu of existing, efficient single-line service;
- Delays due to congestion at major urban railroad centers caused by:
 - A sharp increase in the number of loaded and empty cars moving to and from interchanges over already crowded urban rail infrastructure;
 - Congestion in urban serving yards due to short-term fluctuations in traffic levels that exceed yard capacity and unpredictable “pop-up traffic” delivered by switching carriers;
- Delays due to congestion on main lines caused by:
 - Trains stopped or delayed on main lines due to congestion at interchanges;
 - Loss of the repetitive movements needed to run an efficient, scheduled railroad;
 - Routes running traffic in the opposite direction of existing traffic flows over already heavily utilized rail lines;

- Inefficient use of expensive classification yards due to the loss of volume necessary to construct bypass blocks, causing traffic that could bypass intermediate switching to have to be reclassified en route;
- Inability to optimize the use of main line tracks, railroad employees, and railroad equipment;
- Exposing employees to added risk due to increased switching events. The FRA recently issued an industry-wide safety advisory to railroads concerning flat switching.¹
 - Six railroad employees have been fatally injured since 2009 in flat switching accidents.
 - Mandated switching would add thousands of interchange switching events per day, and nearly all would require flat switching.

The NITL's opening comments and evidence say virtually nothing about the service impacts of its proposal. The NITL does agree, however, with an important premise of my discussion about service impacts, which is that introducing a new switching event is inefficient. In its opening comments, the NITL acknowledges that "By its definition, [mandated switching] requires a switch to another carrier, a switch that costs both time and money," and that "At the end of the day the transportation provided by the accessing carrier is unlikely in all cases to be as timely as the service provided by the carrier actually serving the shipper's facility, because of the need for the switch."²

The NITL does not talk about the consequences of imposing these inefficient switches on rail service quality. That question was the subject of my opening evidence, and I showed that the consequences would be severe. Instead of addressing the service impacts of introducing inefficient new switching into the existing rail network, the NITL's position is that the Board

¹ "Federal Railroad Administration Cautions Railroads About Flat Switching Operations Safety." U.S. Department of Transportation press release, May 3, 2013 (<http://www.fra.dot.gov/eLib/details/L04557>).

² Surface Transportation Board, Ex Parte No. 711, Opening Submission of the National Industrial Transportation League, March 1, 2013, p. 49 ("NITL Opening Submission").

does not need to worry about an impact on rail service because new switching will be relatively rare. The NITL's position appears to be that since mandated switching is inefficient, shippers are not likely to use it unless the alternative carrier is more efficient. Instead, according to the NITL, "The incumbent carrier has a huge incentive to keep the business, even at a lower profit level, rather than to lose the business entirely."³

There is no basis for the Board to conclude that if mandated switching becomes widely available, shippers will rarely use alternative carriers. The NITL relies heavily on its perception of Canada's experience with interswitching to support its claim that switching would be rare under the NITL's proposed rules. Association of American Railroads (AAR) witnesses (Messrs. Phil Ireland and Rodney Case) address the NITL's evidence on Canada and show that the NITL's description of interswitching in Canada is incomplete and misleading and, in any event, does not support the NITL's claims about the level of mandated switching that would occur in the United States.

Apart from its flawed evidence on Canada, the NITL's claim that switching would rarely occur is based on pure speculation. The NITL claims, without any evidence or rationale, that the incumbent would have a "huge" incentive to hold on to the existing business, which it would do by reducing its rates. But the NITL does not explain why the incumbent carrier's incentive to hold onto the business would always be greater than the incentive of the alternative carrier to attract new business to its system. The NITL also claims that the prospect of losing existing business to an alternative carrier would be so great that rates would be driven down by an average of 44 percent for directly impacted cars.⁴ But the NITL never explains why railroads would perceive a serious risk of losing business if switching rarely occurs. It is reasonable to

³ NITL Opening Submission, op. cit., p. 60.

⁴ NITL Opening Submission, op. cit., p. 53, Table 14 (\$1,293,650,873/\$2,929,210,097).

assume that a significant amount of switching would need to occur for the threat to be taken seriously.

The NITL asks the Board to believe that those shippers that are vigorously seeking the right to use an alternative carrier would not actually use an alternative carrier when the opportunity becomes available. As I noted in my opening evidence, it is not possible to know precisely how much switching would result from the NITL proposal. But there is no basis for assuming that switching would be rare. If the NITL proposal were adopted, there is a real chance that a substantial number of shippers would actually use the new rules to obtain service from an alternative carrier. And if that occurs, my evidence on the impact on rail service, which is the only evidence that anyone has presented in this proceeding on the subject, shows that the impact on rail service would be severe.

The inability to predict precisely how much switching would result from the NITL proposal has important consequences. As I explained in my opening Verified Statement, the uncertainty and inability to predict traffic patterns under mandated switching would undermine railroads' ability to plan their service – an important factor on its own that would degrade rail service. The NITL suggests that this uncertainty should not be a concern, because railroads always live with uncertainty, pointing out that rail traffic volumes change significantly from year to year.⁵

While it is true that rail traffic volumes change gradually over the medium to long term, railroads devote substantial resources and attention to monitoring market trends, so as to be prepared to respond to changes in demand, which frequently tie to external economic and shipper-specific factors that affect traffic levels in specific markets. Despite doing so, the lead time to recruit and train crews and to design and construct capacity makes responding to market

⁵ NITL Opening Submission, op. cit., p. 61.

changes challenging. Adding further uncertainty through regulation will only compound the difficulty and interfere with the railroads' ability to respond to dynamic markets. Under mandated switching, the railroads will have no ability to predict individual shipper decisions to move some or all of their traffic to alternative carriers. And if shippers can divert some, but not all of their traffic, then the ability of both the incumbent and alternative carrier to form efficient blocks of traffic will be lost.

III. The NITL Proposal Could Produce Serious Adverse Service Effects

Given all the potential risks of service deterioration and added inefficiency posed by mandated switching, why then take the risk? The NITL has not identified any need for mandated switching or any reason that the public would benefit from it. Rather, the NITL proposal would jeopardize the best rail system in the world, which serves all rail shippers, for the pecuniary benefit of a limited subset of rail shippers. Taking such a risk is not in the public interest.

A. The United States Currently Has the Best Rail System in the World

As I explained in my opening evidence, under the current regulatory structure, the freight railroad system in the United States has evolved from a system characterized by widespread bankruptcy and deferred maintenance to become the best in the world. The railroad network today provides a competitive advantage for railroad shippers in the United States. There is no reason for the Board to jeopardize that leading position.

As Exhibits III-1 and III-2 demonstrate, the U.S. railroad industry carries more freight than any railroad network in the world except China, and it does so more efficiently than any major railroad system in the world.

Exhibit III-1: Major World Rail Systems: Railway Goods Transported, 2008/2011⁶

Million ton-km

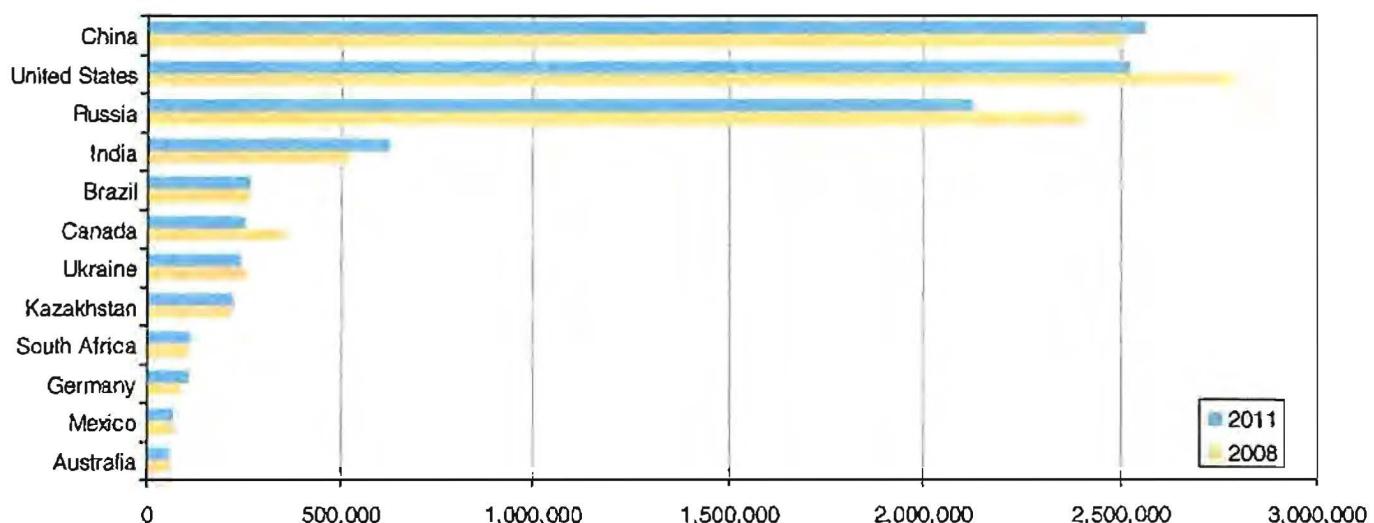


Exhibit III-2: Major World Rail Systems: Employee Productivity⁷

Tkm+pkm/employee

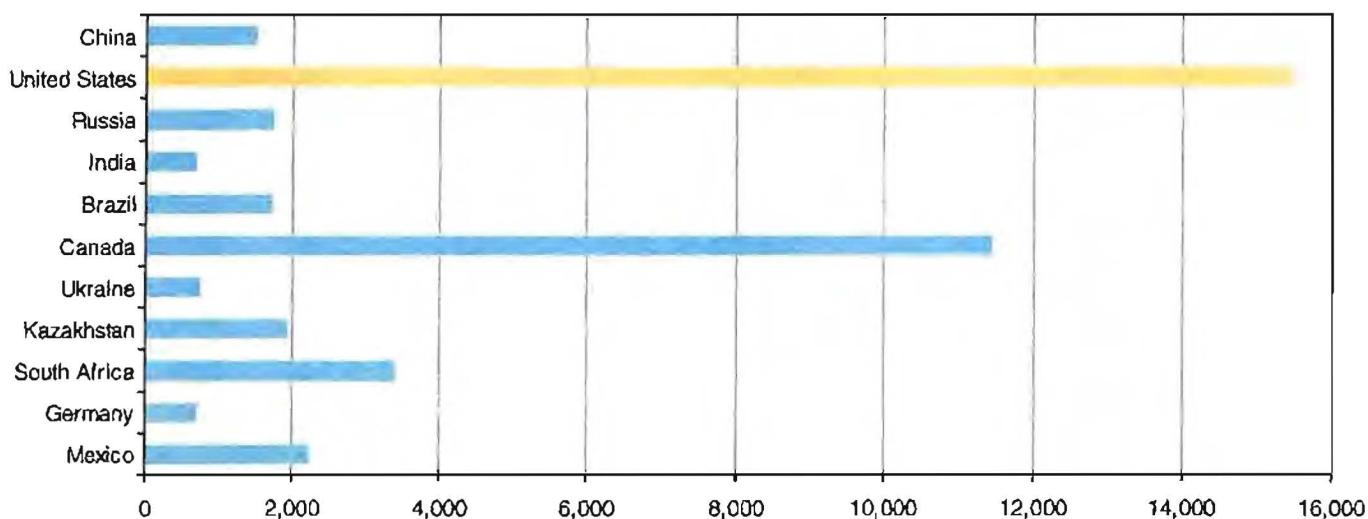


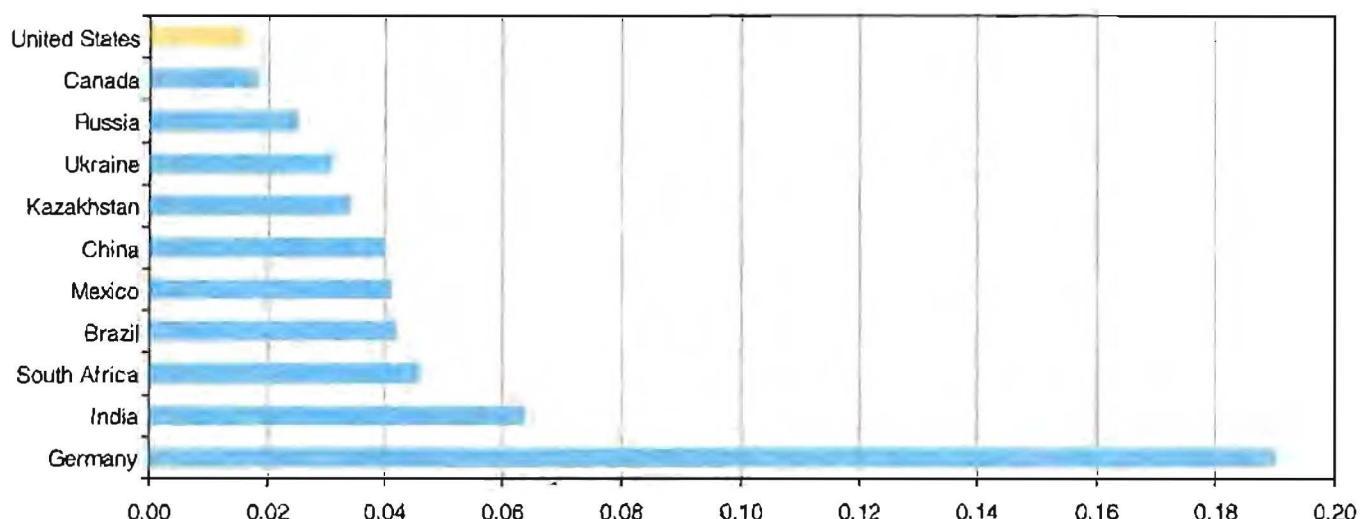
Exhibit III-3 shows that the U.S. rail network provides these benefits while offering rates that are among the lowest in the world.

⁶ Railway goods transported, million ton-km, World Development Indicators, World Bank, 2008 and 2011 data.

⁷ Source: World Bank Railways Database, June 2007. U.S. and Canada data freight only, Australia data not available. Most recent data available for this metric.

Exhibit III-3: Major World Rail System Freight Rates⁸

Purchasing power parity (PPP) for freight revenue per ton-km



U.S. rail efficiency and productivity improvements have contributed to low inland transport and logistics costs, to the benefit of U.S. rail shippers. Through their focus on streamlined operations, railroads play an important role in commercially “shrinking” the distance from growing and production points to end markets and export points. This commercial shrinkage of actual distance supports America’s competitive position when products are sold against offerings from countries where the product lies much nearer to the market. For example, most of Queensland’s coal is within several hundred miles of the export point.⁹ Large Argentine and Brazilian grain growing areas are also closer to points of export than in the United States.¹⁰

The ability of U.S. railroads to move goods in a streamlined, efficient manner is critical to the U.S. domestic economy. For example, legacy and transplant automobile assembly plants in the United States operated both by domestic and foreign car and component manufacturers are a core component of the U.S. industrial economy. These U.S. operations employ American citizens,

⁸ Source: World Bank Railways Database, June 2007. U.S. and Canada freight only, Brazil FEPASA only. Australia data not available. Year 2000 PPP dollars. Most recent data available for this metric.

⁹ Railing Queensland’s Coal, Queensland Government, May 2010, p. 11, fig. 1.

¹⁰ ERS/USDA Soybeans and Oil Crops Briefing Room: Trade (<http://www.ers.usda.gov/Briefing/Soybeansoilcrops/trade.htm>).

purchase material and services, and pay taxes in our national and local economies. The viability and competitiveness of these plants depend on the efficient delivery of foreign components. Foreign parts content in cars manufactured in the United States and Canada ranges from 10 to 55 percent, with Mexico as the main supplier of auto parts to the U.S. market.¹¹ Without efficient rail transport for imported parts and essential material, many of these automobiles and light trucks would be entirely manufactured abroad.

The three decades of work the railroads have done to streamline their operations may also contribute to an industrial renaissance if, as predicted by some analysts, offshore production begins to return to the United States and its NAFTA partners. As noted recently by the *Wall Street Journal*: “A combination of forces—rapidly rising labor rates abroad, loftier materials and shipping costs, deep-discount tax incentives from U.S. states—are changing some of the calculations by which companies decide to move production abroad, or even keep what’s there now.”¹²

B. The Efficiency of the U.S. Rail Network Should Not Be Jeopardized to Provide Rate Reductions for a Sub-Group of Rail Shippers that Have Already Reaped Substantial Benefits under the Staggers Act

AAR witnesses Messrs. Baranowski and Brown demonstrated in their opening evidence that the primary beneficiaries of the NITL proposal would be shippers of coal and chemicals; these

¹¹ National Highway Traffic Safety Administration ([http://www.nhtsa.gov/Laws+&+Regulations/Part+583+American+Automobile+Labeling+Act+\(AALA\)+Reports](http://www.nhtsa.gov/Laws+&+Regulations/Part+583+American+Automobile+Labeling+Act+(AALA)+Reports)); “On the Road: U.S. Automotive Parts Industry Annual Assessment,” Office of Transportation and Machinery, U.S. Department of Commerce, 2011, p. 65.

¹² “Analysis: Will Costs Drive Firms Home?” *Wall Street Journal Online*, May 5, 2011.

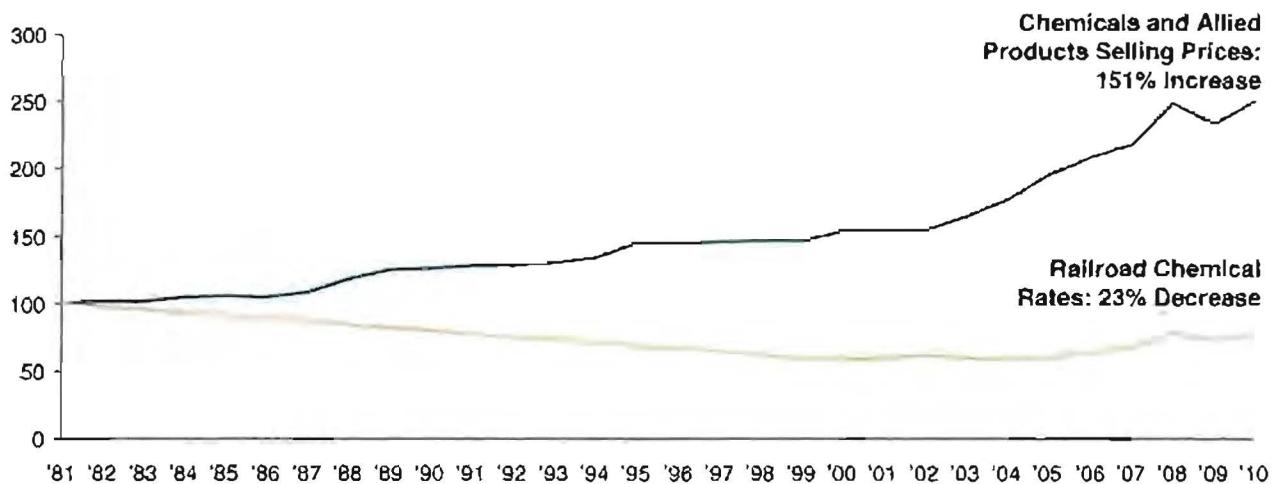
two commodities would account for 49 percent of carloads potentially subject to the NITL proposal.¹³

The NITL makes it clear that the objective of its proposal is to create pressure for rate reductions. But the shippers for whom these rate reductions would be available have already been the beneficiaries of substantial reductions in rail rates under the market-based regulation ushered in by the Staggers Act.

In fact, while rail rates have declined during this period, these shippers have been increasing the prices of their own products. As shown in Exhibit III-4, while the inflation-adjusted prices of chemicals and allied products has increased by 151 percent since 1981, inflation-adjusted railroad rates for chemical products have declined by 23 percent during the same period. Chemical shippers have been the beneficiaries of the widening gap between rail prices and their own selling prices.

Exhibit III-4: Change in Railroad Rates and Selling Prices for Chemicals Since 1981¹⁴

(Indexed, 1981 = 100)



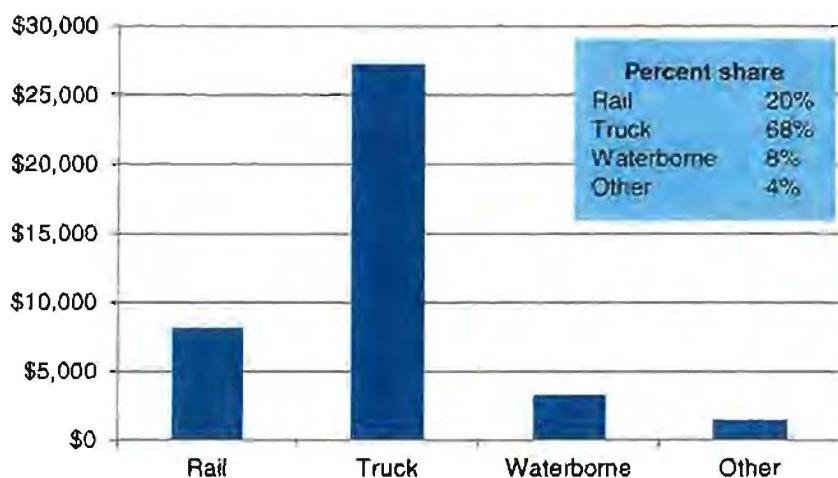
¹³ Surface Transportation Board Ex Parte No. 711. Verified Statement of Michael R. Baranowski and Richard W. Brown, March 1, 2013, Table 4, p. 10.

¹⁴ "The Cost Effectiveness of Freight," Association of American Railroads, June 2012; U.S. Producer Price Index, Chemicals and Allied Products, U.S. Census Bureau; Oliver Wyman analysis. Railroad rates are U.S. average rail revenue per ton-mile for chemicals, adjusted for inflation. Chemical rates are yearly values calculated by averaging monthly values for a given year.

Moreover, while chemical shippers would have the Board believe that railroad rates are an important part of their cost structure, the fact is that overall, the cost of transportation (including all modes) accounts for only about 5-7 percent of the chemical business's value of shipments.¹⁵ Of that total, as Exhibit III-5 demonstrates, in 2010 rail costs accounted for just 20 percent of total transportation costs for the chemical industry, meaning that railroads accounted for about 1 percent of the value of chemical shipments. Contrary to the impression that chemical shippers would like to create – that rail prices have a substantial impact on their business – Exhibit III-5 shows that 80 percent of total transportation expenditures by the chemical industry were for modes other than rail.

Exhibit III-5: Transportation Costs for the Chemical Industry by Mode¹⁶

\$ millions



Coal shippers also have benefited from the current market-based regulation regime, through reductions in transportation rates that have been much larger than the reduction in prices charged by coal shippers to their customers. As Exhibit III-6 demonstrates, while inflation-adjusted electricity rates have declined by 17 percent since 1981, railroad coal rates have declined more, by 43 percent. In coal as in chemicals, railroads clearly are not taking the majority of the

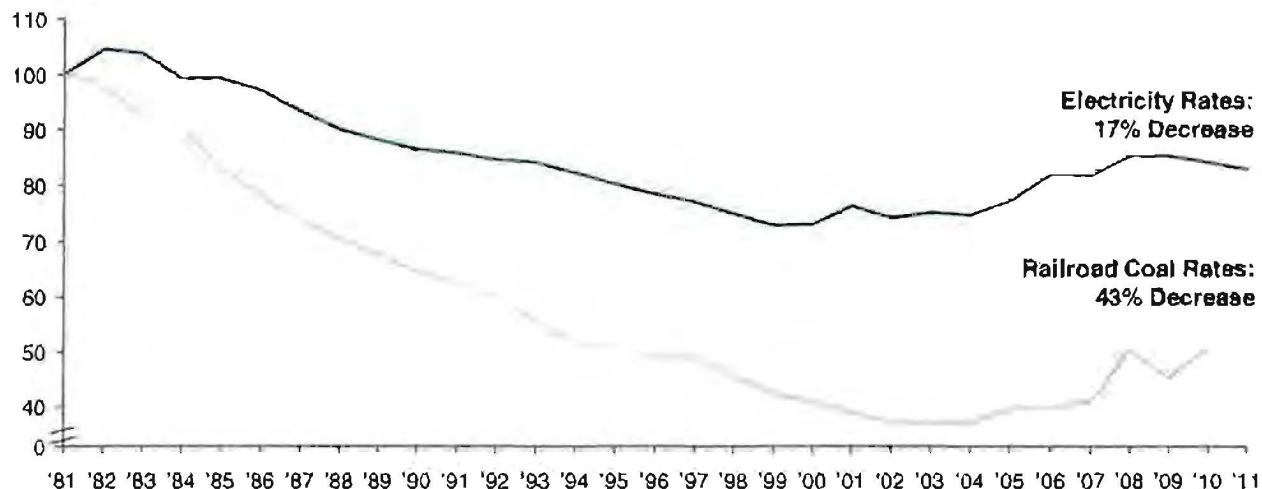
¹⁵ Guide to the Business of Chemistry, 2011 edition. American Chemistry Council, p. 105.

¹⁶ Source: Guide to the Business of Chemistry, op. cit., Table 11.2. Values shown are for 2010.

economic rent; rail rates for coal transportation have declined further than electric rates and the spread has favored coal shippers.

Exhibit III-6: Change in Railroad Coal Rates and Electricity Rates Since 1981¹⁷

Indexed, 1981 = 100



Agricultural shippers stand to gain less from the NITL's proposal than coal and chemical shippers, but grain shippers and the U.S. Department of Agriculture (USDA) also have appeared in this proceeding in support of the NITL's proposal. But as the USDA has recognized elsewhere, "Rates for land transportation of agricultural commodities in the United States remain among the lowest in the world."¹⁸ A study by O'Neil Commodity Consulting for the Soy Transportation Coalition on grain transportation rates notes that "It is important to recognize that the U.S. transportation system is the most efficient in the world. The ability to move large volumes of commodities at relatively low cost is a great advantage to U.S. farmers."¹⁹

¹⁷ "Railroads and Coal," Association of American Railroads, June 2012; Annual Energy Review 2007, Energy Information Administration (EIA), Table 8.10 (for 1981-2006); Electric Power Monthly, EIA, Table 5.3 (for 2007-2011); Oliver Wyman analysis. Railroad rates are U.S. average rail revenue per ton-mile for coal, adjusted for inflation. Electricity rates are U.S. average revenue per kWh, all sectors, adjusted for inflation.

¹⁸ Study of Rural Transportation Issues, U.S. Department of Agriculture, April 2010, p. 210.

¹⁹ Transportation and the Farmer's Bottom Line, O'Neil Commodity Consulting, June 2010, p. 4. Jay O'Neil is a senior agricultural economist at the International Grain Project at Kansas State University.

The fact is that railroad shippers – including shippers in industries that support the NITL proposal – have no basis to argue that the Board should consider mandated switching to protect them from increases in railroad rates. Since 1980, under the current regulatory structure, railroad rates have increased at less than the rate of railroad cost inflation and rail shippers have shared in the benefits of increased railroad efficiency. As demonstrated in my original Verified Statement, these efficiency gains have been made possible by rationalizing the railroad network and simplifying operations, including greatly reducing the percentage of traffic interchanged.

Mandated switching would undermine these gains.

C. All Users of the Rail Network Would Be Adversely Affected by Service Declines

While the rate reductions that would be brought about by the NITL proposal are limited to a subset of shippers, the adverse service impacts would be felt by all users of the rail network. As I demonstrated in my opening Verified Statement, the service impact of inefficient switching would be felt largely in the urban areas and service yards where new switching activities would have to take place. The adverse service effects of inefficient switching would therefore be felt by all shippers with traffic passing through an affected urban area or that use an affected yard. I also showed that localized problems that arise from inefficient switching or from the lack of adequate switching infrastructure could quickly expand through the rail network, again affecting all users of the rail network. The NITL proposal would thus create winners and losers among rail shippers – a subset of shippers would benefit from rate reductions while the rest of the rail shipper community would be required to suffer the adverse effects of service declines. It would not be in the interest of rail shippers as a whole or the general public to adopt new rules that have such a disproportionate effect.

IV. The NITL Ignores the Impact of Its Proposal on Capital Infrastructure Spending

The public interest also is not served by adopting new rules that would dramatically curtail capital spending by the railroads on infrastructure. As the rail industry's regulator, the Board must be concerned with the potential effect that a change in regulatory structure could have on the financial viability of the railroads and, in particular, their ability to sustain the nation's rail infrastructure over the long term. The disastrous outcome of railroad industry overregulation prior to 1980, i.e., the bankruptcy of railroads in large parts of the country and massive deferred maintenance, provides an ample reason for caution when considering a fundamental change in regulatory structure such as the NITL is proposing.

The NITL suggests that the Board need not worry about the financial impact of its proposal, because the loss of revenue that it estimates would result from mandated switching – \$1.29 billion per year – would be a “very small fraction” of the gross revenues for the four Class I railroads included in its evidence.²⁰ It is impossible to predict accurately the revenue losses that would occur under the NITL’s proposal, however, because there are too many unknowns. The NITL itself seems uncertain whether any new rule should include traffic that meets its proposed “75 percent” presumption, since the NITL did not even attempt to estimate the impact of the NITL proposal on such traffic. In addition, the level of access fees would affect the level of revenue losses that would occur, but the NITL did not submit any evidence on what such access fees should be.

Regardless of how the rule is structured, there is no way to predict how shippers or railroads would react to a mandated switching regime. However, a proper examination of the NITL’s

²⁰ NITL Opening Submission, op. cit., p. 64. Class I railroads included are BNSP, CSX, NS, and UP.

clearly understated number reveals that a \$1.29 billion reduction in revenues would have a substantial negative effect. By conducting a more comprehensive analysis, with a more accurate carload number and an attempt to approximate at least some of the costs resulting from the NITL's proposal, the results become devastating.

A. The NITL's Comparison of Revenue Loss to Gross Revenue Obscures the True Impact of Its Proposal on Capital Spending

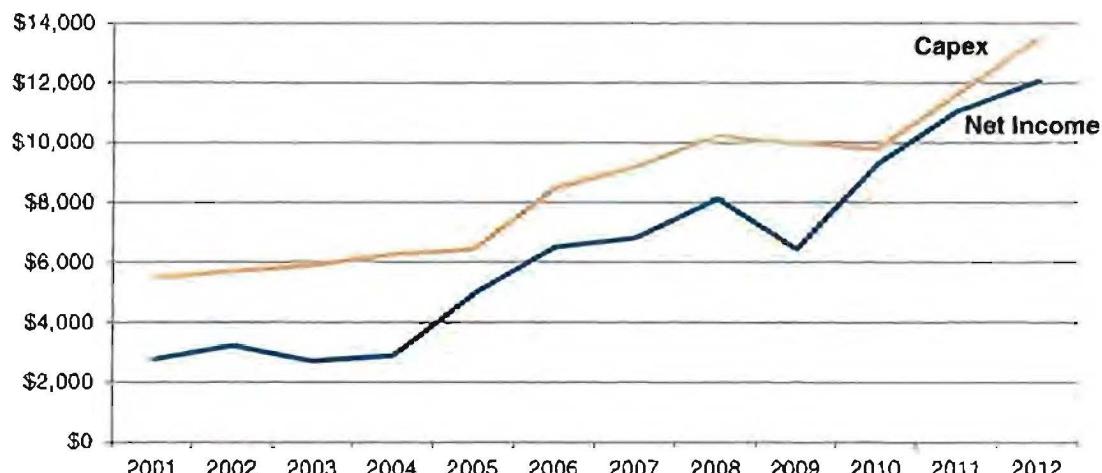
First, the NITL attempts to obscure the true nature of the financial impact of its proposal on the railroads by focusing on reductions in railroad industry gross revenue. But to fully understand the potentially devastating impact mandated switching could have on the railroads, the Board must focus on the impact of revenue reductions on the railroads' ability to sustain a viable railroad network over the long term through capital investment. A comparison of revenue losses to gross revenue says nothing about the impact of those losses on railroad industry capital expenditures.

The NITL and its members well know that profitability and financial viability are measured in net income, not revenue. Dollars needed to keep the railroad network in good repair, and to expand it to accommodate the traffic growth that is expected over the coming years and decades, come from net income and cash flow.²¹ The NITL asserts that its estimated \$1.29 billion revenue loss for the four railroads included in its study would be "a small fraction" of their gross revenues, but the NITL does not make the correct comparison: The important question from a public interest standpoint is how the loss of \$1.29 billion in annual revenues would affect capital expenditures. And, contrary to the NITL's suggestion that the impact of the revenue loss would

²¹ Cash flow is net income plus depreciation and amortization, deferred taxes, and net change in subsidiary undistributed income. Between 2000 and 2011, railroad net income and railroad cash flow were closely related to one another and to railroad capital expenditures. Therefore, for purposes of simplicity, I refer to net income in this statement.

be insignificant, such a loss in revenue – even the NITL’s understated amount – would be equivalent to 13 percent of the entire railroad industry’s 2010 capital expenditures. When put into the proper context, it is clear that even the NITL’s understated revenue loss projection of \$1.29 billion would severely affect the public interest in maintaining a viable rail network, by reducing the investments that railroads could make in improving and expanding rail infrastructure. As shown in Exhibit IV-1, historically railroad net income has been closely related to capital expenditures: Increases and decreases in net income are reflected in closely corresponding increases and decreases in capital expenditures.

Exhibit IV-1: Relationship of Net Income and Railroad Capital Expenditures, 2001-2012²²



Since the amount of work required by the railroads, and the costs associated with that work, would not decrease (in fact, as I explain later, work would increase significantly), a \$1.29 billion reduction in revenue would cause a substantial reduction in net income available to make capital expenditures for the four railroads included in the NITL’s estimate – and even more for all seven Class I’s – *every year*.²³ And since the \$1.29 billion loss estimate is dramatically understated, as

²² Source: Railroad Ten Year Trends, 2001-2010, Association of American Railroads, p. 65; Railroad Facts, 2012 edition, Association of American Railroads, p. 44; 2012 Class I R-1’s.

²³ We discuss the effect of income tax due to the loss of revenue on net income and funds available for capital expenditures in Section IV.

I explain below, the actual impact on capital expenditures would be far greater.

Exhibit IV-2 lists selected recent projects that were specifically funded to help mitigate rail congestion and increase capacity. The loss of revenue available to fund projects such as these would lead to delays and service deterioration for shippers – both those that would benefit from mandated switching and those that would not.

Exhibit IV-2: Examples of Recent Rail Infrastructure Improvement Projects

| Railroad | Location | Comments | Investment |
|----------|---|---|------------|
| BNSF | Williston Basin in North Dakota and Montana | BNSF expanding its ability to transport Bakken crude oil following the rapid rise of shale development in the region. Expansions include 2,188 miles of track surfacing, two new inspection tracks, raising track at Devil's Lake, replacement of 121 miles of rail and 332,000 ties, signal upgrades, and equipment acquisitions. ²⁴ | \$197M |
| BNSF | Kansas | BNSF enhancing its rail capacity in Kansas through construction of the Kansas City Intermodal Facility southwest of Kansas City in Edgerton, KS, improvements to the Topeka locomotive shops, and signal upgrades for positive train control. ²⁵ | \$242M |
| CN | Gary, IN | CN expanding Kirk Yard facility with additional classification, receiving, and departure tracks to handle longer and more efficient trains, improving interchange with other railroads, and consolidating switching operations in the Chicago area at a single primary yard. ²⁶ | \$141M |
| CSX | Ohio | CSX built a new rail terminal in Northwest Ohio with an annual capacity of nearly two million containers. It is the cornerstone of a new double-stack freight network between East Coast ports and the Midwest, and utilizes recent advancements in technology and green design. ²⁷ | \$175M |
| CSX | Worcester, MA | CSX expanded its existing rail terminal in Worcester, which enhanced the flow of product shipments in a variety of domestic and international markets. ²⁸ | \$100M |
| NS | Bellevue, OH | NS doubling yard capacity at its Bellevue classification yard to meet rising demand for freight rail transportation. ²⁹ | \$160M |
| UP | Arkansas, Louisiana, Texas, and Oklahoma | UP adding terminal and line capacity to handle growth in chemicals, crude oil, frac sand, intermodal, automotive, and cross-border Mexico traffic. Projects include terminal upgrades, double-tracking, siding extensions, and CTC installation on the Pine Bluff-New Orleans corridor, Houston-San Antonio corridor, and El Paso-Dallas/Ft. Worth-Shreveport corridor. ³⁰ | \$551M |

²⁴ BNSF news release, September 4, 2012 (<http://www.bnsf.com/media/news-releases/2012/september/2012-09-04a.html>).

²⁵ BNSF news release, May 15, 2012 (<http://www.bnsf.com/media/news-releases/2012/may/2012-05-15a.html>).

²⁶ "Canadian National Cuts Back on Kirk Yard Expansion," NWI.com (http://www.nwitimes.com/business/local/canadian-national-cuts-back-on-kirk-yard-expansion/article_08373e30-7bd0-5714-a69c-09e486f01350.html).

²⁷ CSX news release, February 22, 2011 (<http://www.csx.com/index.cfm/media/press-releases/northwest-ohio-terminal-begins-service/>)

²⁸ CSX, Projects and Partnerships, Sustainable Infrastructure. Worcester (<http://www.csx.com/index.cfm/about-csx/projects-and-partnerships/sustainable-infrastructure/>)

²⁹ "Norfolk Southern Announces Major Expansion," Sandusky Register (<http://www.sanduskyregister.com/article/1799236>).

³⁰ 2012 Analyst Fact Book, Union Pacific Corporation, pp. 30-31 and 33. First quarter 2013 earnings release, Union Pacific Corporation, p. 15.

There are significant public policy implications implicit in forcing a reduction in railroad capital expenditures of the magnitude that would occur under even the NITL's understated assumptions. The continued ability of the railroad industry to make capital investments to maintain existing infrastructure, to fund capital improvements to infrastructure, and to expand existing railroad infrastructure to meet growing demand is a critical national interest. The inability of the railroads to make these critical capital investments prior to the passage of the Staggers Act led to the bankruptcy of large portions of the railroad industry and significant deferred infrastructure spending. A recent Council on Foreign Relations report on U.S. rail infrastructure noted that:

“Freight railroads [are] maintained with little taxpayer money, unlike alternative forms of freight transport such as trucks and barges, for which the government maintains the infrastructure. Over the past several decades, U.S. freight railroad companies have made billion-dollar investments in the national rail network....But challenges remain. Freight rail will need substantial investment in the future, despite its current success.”³¹

The report emphasized the need to add rail capacity. The U.S. Department of Transportation has projected that a 46 percent increase in capacity will be required to meet rail freight transportation demand by 2040.³² A reduction in revenues available to make capital investments, even of the understated amount estimated by the NITL, would have a serious impact on the ability of the railroads to make necessary investments. The public interest is not advanced by

³¹ Renewing America Backgrounder; U.S. Rail Infrastructure, Council on Foreign Relations. March 7, 2012 (<http://www.cfr.org/united-states/us-rail-infrastructure/p27585>).

³² Freight Facts and Figures 2012, Table 2-1, U.S. Department of Transportation.

carloads that would be affected by the NITL proposal, it is clear that even the NITL's \$1.29 billion revenue loss estimate is dramatically understated.

Unlike the NITL's estimate of the number of carloads that would be affected by its proposal, the estimate made by Messrs. Baranowski and Brown is based on modeling the NITL's actual proposal. Messrs. Baranowski and Brown estimated that about 7.5 million carloads would be affected by the NITL proposal. If the NITL's estimate of a revenue loss of \$1,044 per carload is applied to all of the traffic in FTI's estimate of affected carloads, the revenue losses would be \$7.83 billion. Exhibit IV-3 below illustrates the magnitude of the NITL's revenue loss understatement and compares the more realistic estimate of revenue losses to the railroad industry's 2010 capital expenditures.

Exhibit IV-3: Magnitude of the NITL's Revenue Loss Understatement³³

\$ billions



³³ Source: Revenue impacts based on Oliver Wyman analysis of NITL and FTI data contained in the EP 711 filing, March 1, 2013. 2010 capex from Railroad Facts, 2011 Edition, op. cit., p. 44.

C. When the Additional Costs Created by Mandated Switching Are Considered, It Is Clear That the Revenue Losses to the Railroads Would Have a Devastating Impact on Capital Investment

While the loss of \$7.86 billion in annual revenues, amounting to over 80 percent of annual capital expenditures, would clearly present severe problems for the railroad industry and its users, the financial impact of the NITL proposal is even greater when cost impact is considered. The funds available to make capital investments would be reduced by the NITL proposal not only due to a reduction in rate levels, but also due to the additional costs that would be imposed by mandated switching. The NITL has ignored the cost increases that would result from mandated switching.

Once again, it is not possible to estimate with any precision the additional costs that would result from mandated switching. As my opening evidence described, many factors unique to the circumstances of particular switching locations and operations would have to be considered to prepare an accurate estimate of the additional costs. However, it is possible to make a very high level estimate of certain direct costs that would be created by mandated switching by looking at historical experience.

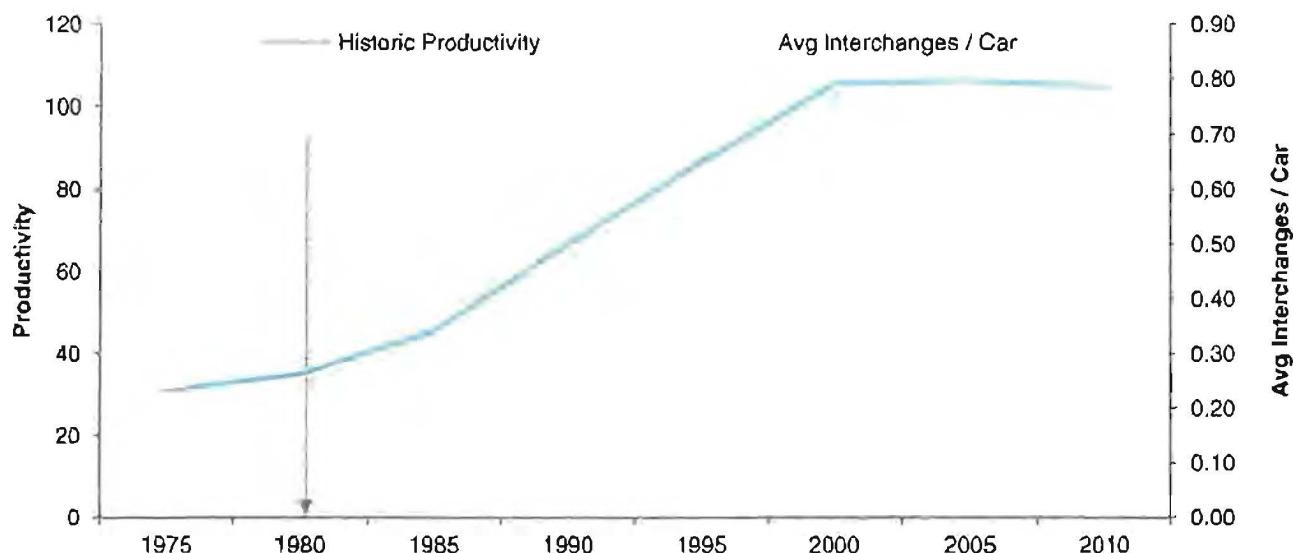
Direct Cost Increases

My Verified Statement in this proceeding established a strong negative correlation between railroad productivity and the number of cars interchanged.³⁴ As the railroads have invested to reduce the number of interchanges and to simplify their operations, the productivity of the entire rail system has increased. This is illustrated in Exhibit IV-4.

³⁴ Surface Transportation Board Ex Parte No. 711, Verified Statement of William J. Rennicke, March 1, 2013, Section VII ("Rennicke Verified Statement").

Exhibit IV-4: Average Interchanges per Railcar vs. Productivity, 1975-2010³⁵

Productivity = revenue ton-miles/\$ of inflation-adjusted operating expense
Correlation coefficient between productivity and average number of interchanges = -0.95



Productivity can be broken down into several components, including infrastructure, rolling stock, and labor, and each of these productivity components is strongly correlated with the number of interchanges.

For example, Exhibit IV-5 below shows a strong correlation between a decrease in the number of interchange events per railcar and a decrease in miles of yard track.³⁶ This is not surprising, since interchanges largely occur in yards and thus a decrease in the number of interchanges will lead to a decrease in the work being done in a rail yard, and thus a reduction in the amount of yard track necessary to support this work.

Equally, there is a strong negative correlation between the average miles per day traveled by a railcar and the number of interchange events per railcar. Again, this is not surprising, since the

³⁵ Rennicke Verified Statement, op. cit., Exhibit VII-7, p. 103.

³⁶ Correlation coefficients range from +1 to -1, where values numerically close to +1 indicate the two variables have historically both increased or decreased at the same time. Values close to -1 indicate that historically as one variable increased the other decreased.

less often a railcar is interchanged, the more time it can spend in transit instead of sitting in a yard.

Finally, with regard to labor, it would be expected that a reduction in interchange events at the yards would require less yard staff, and as shown in Exhibit IV-5, there is a strong correlation between yard staff and interchange events. Conversely, as interchange events increase, more resources will be consumed.

Exhibit IV-5: Correlation between Productivity Measures and Interchanges³⁷

Based on data from 1987 through 2010

| Productivity Measure | Avg. Interchange Events per Railcar | Correlation Coefficient |
|---------------------------|-------------------------------------|-------------------------|
| Yard Track | Interchange events per railcar | 0.86 |
| Miles per Day per Railcar | Interchange events per railcar | -0.80 |
| Yard Staff | Interchange events per railcar | 0.82 |

Should the NITL proposal be implemented, more interchange events inevitably would occur, which would lead to a decline in rail productivity. Railroads would require more resources to move the same amount of freight, reintroducing many of the inefficiencies that they have worked since 1980 to eliminate.

I estimated the additional resources that railroads would need if the NITL proposal were adopted by first looking at the historical relationship between the number of interchanges and the resource requirements for yard track, yard staff, train and engine staff, railcars, locomotives, and fuel. I then estimated the increased requirements that would result from an increase in interchanges due to mandated switching, under an assumption of 25 percent of the affected carloads being diverted to another carrier, a 33 percent diversion rate, and a 50 percent diversion rate. I used FTI's estimate that 7.5 million carloads would be affected by the NITL proposal, and

³⁷ Oliver Wyman analysis.

based my unit costs on various sources that are described in my work papers. I refer to the additional costs for the resources described above that I estimated based on historical experience as *direct costs*.

Exhibit IV-6 depicts the impact of increased direct costs for three diversion scenarios, combined with revenue loss of \$7.86 billion. The revenue loss remains constant for all scenarios on the assumption that if traffic were diverted, then the rate on the alternative route would not exceed a reduced rate offered by the incumbent. This likely is a conservative assumption about the revenue compression that the railroad industry would experience, since the new carrier route might have to offer a further reduction to offset the slower service inherent in adding switches, in order to secure the diversion. The three bars on the left show the sum of the lost revenue and increased cost above the bar. The bar on the right puts the combined impact into perspective by comparing it to total capital expenditures for the Class I railroads in 2010.

Exhibit IV-6: Potential Impacts of Mandated Switching Due to Revenue Loss and Increased Direct Costs, 7.5 Million Carloads³⁶



³⁶ Source: Revenue impacts based on Oliver Wyman analysis of the NITL and FTI data contained in the EP 711 filing, March 1, 2013. 2010 capex from Railroad Facts, 2011 edition, op. cit., p. 44.

The additional direct costs shown above are based on the historical relationship between interchanges and certain categories of direct costs. I emphasize that I am not presenting these cost estimates as a prediction of specific costs that would be incurred. Such a prediction is not possible, due to the uncertainty of the proposal and the limitations of the data available at this time. Predicting costs with precision would require far more detailed information about how much, where, and how often carloads would be switched between the switching carrier and the new rail carrier. The estimates are valuable, however, in showing the magnitude and importance of the direct costs that would be imposed by mandated switching.

Indirect Costs

The direct costs that I estimated above are only part of the cost impact of the NITL proposal. The direct costs identified above are based on the relationship between interchanges and resource requirements in a regime that does not include mandated switching. But it is highly likely that resource requirements would be even greater under a mandated switching regime, as mandated switching would introduce uncertainties and inefficiencies into an existing rail network designed to deliver efficient, single-line service wherever possible. These uncertainties and inefficiencies would certainly create additional *indirect costs*. It is not possible to estimate these indirect costs even in terms of order of magnitude, because there is simply no historical record showing the impact of mandated switching on these types of costs. Given the complex, interrelated nature of the railroad network, however, it is likely that these costs could be very substantial.

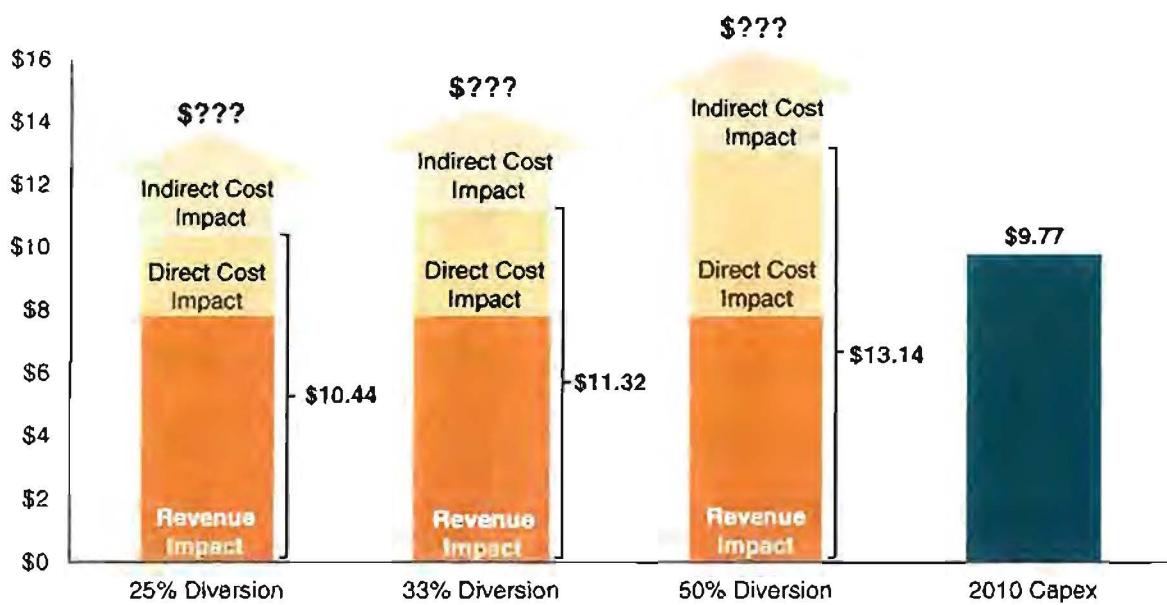
For example, as explained in my opening evidence, mandated switching would likely create substantial line congestion. This would affect not only the quality of service that railroads could provide, but would add substantial costs for fuel, crew, and equipment. Similarly, yard congestion would result from the inability to efficiently plan yard operations. Other costs would

result from the mismatch between the current configuration of yard capacity and the capacity that would be needed to accommodate new switching demands.

Moreover, it is not only the railroads that would experience indirect cost increases. Shippers that would be eligible for mandated switching, as well as all other shippers, would experience increased costs as a result of longer transit times and less reliability in the supply chain, among other substantial costs. For example, slower transit times could require some shippers to lease or buy more railcars to move the same volume of traffic, and experience has shown that the unnecessary addition of railcars to the network is a primary source of congestion for all rail users. While these costs cannot be estimated, the Board cannot ignore them in considering the impact of the NITL proposal. And as shown in Exhibit IV-7, the total cost impact of mandated switching, when added to revenue losses, would be devastating.

Exhibit IV-7: Potential Impacts of Mandated Switching Due to Revenue Loss and Increased Direct and Indirect Costs, 7.5 Million Carloads³⁹

\$ billions

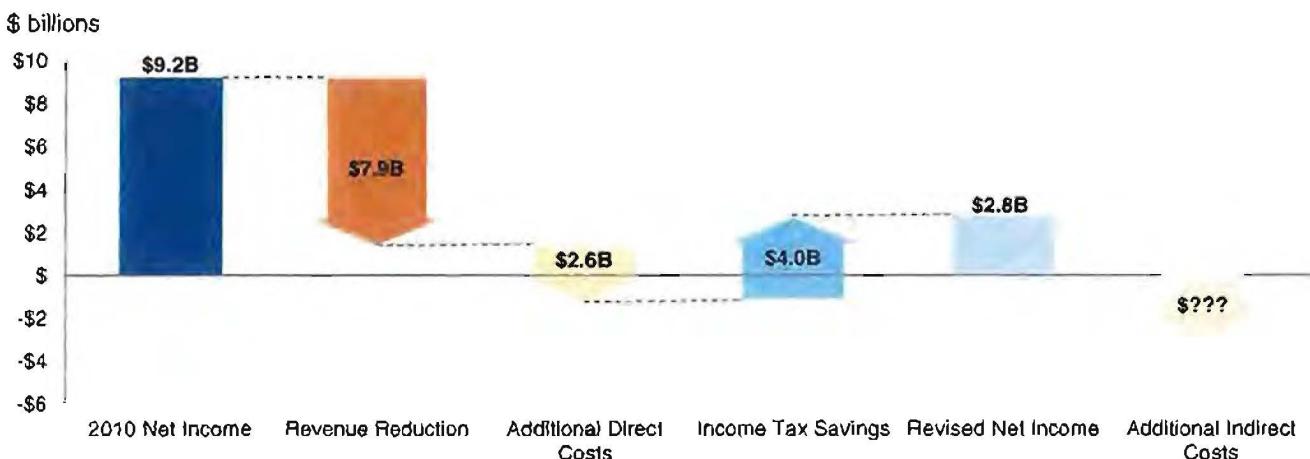


³⁹ Source: Revenue impacts based on Oliver Wyman analysis of the NITL and FTI data contained in the EP 711 filing, March 1, 2013. 2010 capex is from Railroad Facts, 2011 edition, op. cit., p. 44.

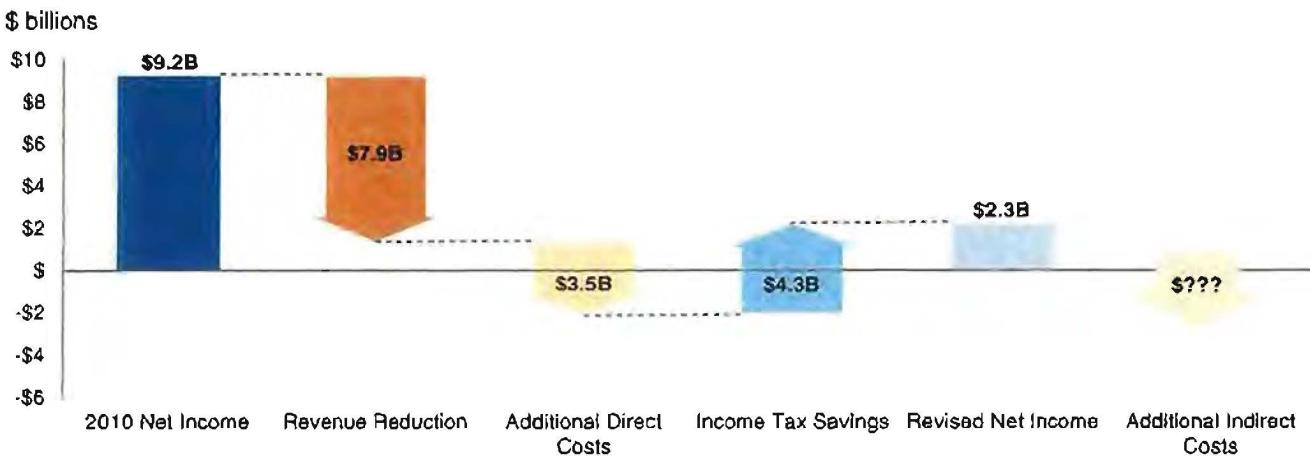
As I noted previously, to translate these revenue losses and additional costs into net income, it is necessary to account for the effect of income taxes. To account for taxes, I created an industry financial statement for the year 2010 and adjusted revenue and costs to account for the revenue losses and increased direct costs described above. The calculations are set out in my work papers. For the diversion rates described above, Exhibits IV-8 through IV-10 on the next page depict “waterfall” charts showing how revenue losses and increased costs would translate into net income.⁴⁰

⁴⁰ Source for Exhibits IV-8 through IV-10: Oliver Wyman analysis.

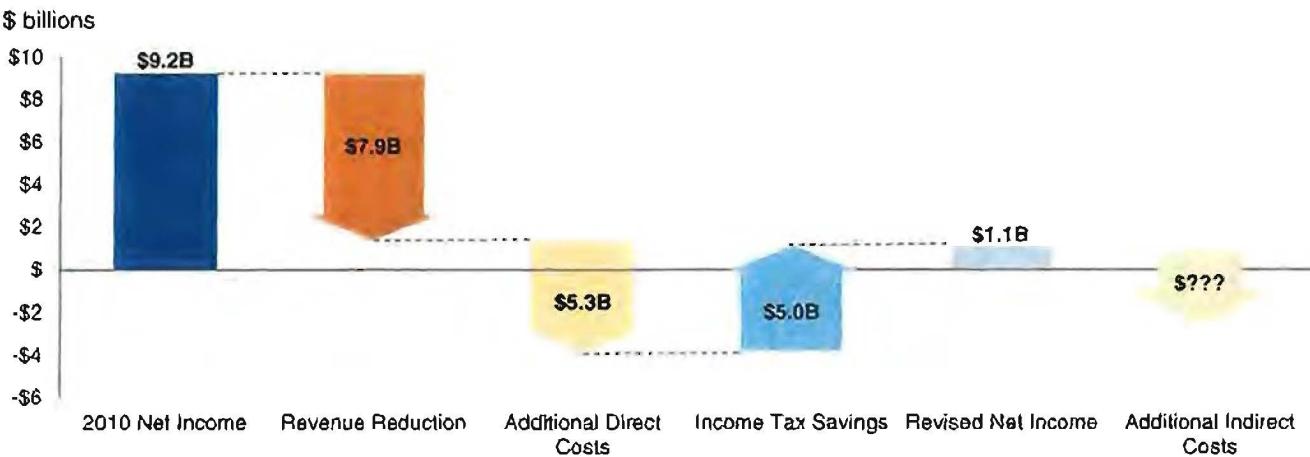
**Exhibit IV-8: Impact of Mandated Switching Scenario: 7.5M Carloads/25% Diversion Rate
(Includes Tax Savings)**



**Exhibit IV-9: Impact of Mandated Switching Scenario: 7.5M Carloads/33% Diversion Rate
(Includes Tax Savings)**



**Exhibit IV-10: Impact of Mandated Switching Scenario: 7.5M Carloads/50% Diversion Rate
(Includes Tax Savings)**



The first column on the left in each chart above depicts the 2010 actual net income of the industry. From left to right, each chart then shows the impact of revenue reductions, additional direct costs, and income taxes on net income under different diversion scenarios, resulting in a revised net income figure in the second to last column on the right. The first adjustment to actual 2010 net income is from the projected revenue losses discussed in Section IV.B, which are shown in a downward arrow in the second column. The third column depicts the effect of estimated direct costs, which further reduce income. The fourth column shows that revenue losses and increased costs reduce the industry's tax burden, resulting in an upward adjustment to net income. The result of these adjustments is a restated net income amount, showing the substantial reduction in net income available to fund infrastructure investments, even before considering the potentially large indirect costs associated with the NITL proposal. The charts demonstrate that the NITL proposal could have a devastating impact on the ability of the railroads to invest in railroad infrastructure.

With the revenues and efficient cost structure available to them today, railroads invest substantially in infrastructure, in sharp contrast to the experience of the railroad industry before deregulation. For example, U.S. railroads plan to spend \$13 billion for capital expenditures in 2013.⁴¹ The current regulatory structure permits and encourages U.S. railroads to invest in infrastructure that benefits shippers and the nation as a whole. As the *Economist* recently noted:

“Europeans have long pitied Americans for their rotten passenger trains. But when it comes to moving goods, America has a well-kept freight network that is the most cost-effective in the world. It is, however, a capital-intensive business.

Since the Staggers Act of 1980 deregulated the sector [reference to chart omitted]

⁴¹ Association of American Railroads press release, February 6, 2013.

rail companies have invested about 17% of their revenues in their networks. This is about half a trillion dollars of private money over the past three decades. Even the American Society of Civil Engineers, which howls incessantly (and predictably) about the awful state of the nation's infrastructure, shows grudging respect for good railways in a recent report.”⁴²

Mandated switching could roll back 30 years of progress and return the railroads to an era of inadequate returns, massive deferred maintenance, and bankruptcy.

⁴² “Back on Track: The Quiet Success of America’s Freight Railways,” *The Economist*, April 13, 2013.

V. The NITL's Claim that Mandated Switching Will Cause an Increase in Rail Traffic Is Implausible

Finally, the NITL tries to dismiss concerns about the loss of railroad revenue with unsupported claims that railroads could potentially see a traffic increase as a result of mandated switching:

“While there are obviously many reasons for shifts in market share, the cost of transportation is clearly a factor when companies make decisions about sourcing, buying, and selling. Although it is impossible to make exact predictions about the amount of traffic that U.S. rail carriers might expect to gain under a more competitive regulatory and business model, there is no doubt that more competition would result in greater pressure to operate more efficiently and a likely increase in traffic that would offset at least part of the loss of railroad monopoly power in selected markets under the introduction of the CSP.”⁴³

The NITL's claim does not rely on evidence but on wishful thinking. The NITL claim does not hold up under even the most cursory analysis.

As noted previously, the two major commodity groups with the greatest potential to take advantage of mandated switching are coal and chemicals. Agricultural shippers also support the NITL proposal, although their support is somewhat ambivalent. There is no reason to expect any significant rail traffic increases in these commodity groups as a result of mandated switching, let alone an increase in traffic sufficient to prevent the serious financial consequences outlined above.

⁴³ NITL Opening Submission, op.cit., p. 56.

In the area of coal transportation, the factors driving the amount of rail traffic go far beyond the level of rail transportation rates. Much of rail coal movement is driven by demand for electricity and the price of alternative fuels, such as natural gas and oil. In recent years, environmental pressures and the development of relatively cheap and plentiful natural gas has led to a decrease in the use of coal to generate electricity:

“In the 1990s, coal’s share of electricity generation averaged 56 percent. By 2002, it was down to 50 percent. By 2011, it had fallen to 42 percent, its lowest level since sometime prior to when EIA data begin in 1949. Meanwhile, the natural gas share rose from 18 percent in 2002 to 25 percent in 2011, and renewables’ share rose from 2 percent in 2002 to 5 percent in 2011.”⁴⁴

These trends are not likely to reverse. A recent report by the American Coalition for Clean Coal Electricity found that 285 coal-based electric generating units in 32 states, representing 41,000 MW capacity “are scheduled to be shut down due, at least in part, to regulations and other policies issued by the Environmental Protection Agency.”⁴⁵ Peabody Energy Corporation Chairman and CEO Gregory Boyce recently said that U.S. coal exports will likely decline by 25 million tons in 2013 compared to a record-setting 2012, when the U.S. exported between 124 million and 126 million tons.⁴⁶ He said metallurgical coal exports will likely decline by 15 million tons and thermal coal exports will drop by 10 million tons.⁴⁷ Given these facts, it is implausible to assume a significant increase in coal traffic simply as the result of a decrease in rail rates.

⁴⁴ “Railroads and Coal,” op. cit., June 2012, p. 4.

⁴⁵ “New Analysis Shows EPA Rules are Shutting Down Power Plants in 32 States,” American Coalition for Clean Coal Electricity, May 3, 2013 (<http://www.americaspower.org/new-analysis-shows-epa-rules-are-shutting-down-power-plants-32-states>).

⁴⁶ “Get Ready for Drop in U.S. Coal Exports, Industry Officials Say,” *SNL Coal Report*, May 6, 2013.

⁴⁷ *SNL Coal Report*, op. cit.

As to chemical traffic, there also is no basis for assuming that reduced rates from mandated switching would produce a significant increase in chemical traffic on rail.⁴⁸ The NITL claims that its proposal would apply only to carloads for which there are no effective competitive alternatives. If true, that would mean that there is no reason to believe there would be any diversion of chemical traffic from trucks to rail. The carloads affected by the NITL proposal would not, under the NITL's assumption, even have a truck alternative. Moreover, as noted previously, in the aggregate, rail transportation costs are only about 1 percent of the total value of chemical shipments; thus, it is highly unlikely that changes in rail rates would have any significant effect on the amount of chemical traffic moving by rail.

The example of fertilizers illustrates the lack of any basis in the real world for NITL's empty claim that rail traffic will grow under mandated switching regulations. According to the Fertilizer Institute:

"Following World War II, fertilizer use expanded rapidly in the United States, but leveled off in the early 1980's after reaching a peak of 23.7 million nutrient tons in 1981. The United States is a mature market for fertilizer; as such, annual changes in use are typically driven by changes in planted acres, but are also influenced by relative crop-to-fertilizer prices and other factors."⁴⁹

Marginal changes in railroad rates for fertilizer traffic that has no modal competition are unlikely to result in a discernible increase in rail fertilizer traffic, as the NITL asserts. Demand for fertilizer is mature, and is driven by factors such as the relative price of crops (which drives

⁴⁸ Based on PTI's impact analysis, there would have to be a 30 percent increase in chemical carloads to make up the revenue losses assumed by the NITL. This calculation is based on the loss in revenues that the NITL estimated would occur and the difference between the amounts earned by the railroads before and after mandated switching. Using the NITL's assumption as to revenue reduction per carload, I calculated the number of additional carloads that would be required under the new revenue/carload assumption to make up for the lost revenue.

⁴⁹ The Fertilizer Institute, Statistics FAQ's (<http://www.fertilizer.org/statistics/statistics-faq>).

planting decisions). Crop prices are volatile and driven by factors having nothing to do with railroads.

The problem with the USDA's assumption that grain traffic would dramatically increase as a result of lower rail rates is similar. The amount of grain that is grown in the United States is clearly not based on the level of rail rates. So the suggestion that reducing rail rates will lead to an increase in grain traffic is not at all credible. Moreover, the USDA fails to consider that supposed increases in grain traffic would have to come only from those grain shippers that receive lower rates from mandated switching. But the USDA acknowledges that the group of grain shippers likely to be able to use mandated switching under the NITL's proposal is relatively small. There is no reason to believe that a small group of grain shippers would be able to increase grain production to make up for revenue losses sustained by the railroads as a result of mandated switching.

VI. Conclusion

Adopting the NITL proposal would impose enormous risks on the railroad network in the United States. These risks include the possibility of local service disruptions, which can spread through the network in severe and unexpected ways, as well as the destruction of the railroad industry's ability to invest to maintain and expand the network to accommodate expected demand growth. The NITL asks the railroad industry and the users of the railroad network to assume these risks for the sole purpose of providing rate reductions to a sub-group of coal and chemical shippers whose rail rates declined more under the current regulatory structure than did their own prices during the same period.

My Verified Statements in this proceeding demonstrate that:

1. Mandated switching will lead to a substantial increase in switching events, which will lead to degraded rail service and a significant increase in the cost of transporting the same amount of traffic. The NITL acknowledges that switching is inefficient and costly. However, it asks the Board to believe that it will not occur. The NITL offers no evidence to support this pivotal assumption, which is implausible on its face. While it is not possible to estimate precisely how much additional switching will occur, I have demonstrated that it could be very significant.
2. Over-regulation of the railroad industry prior to passage of the Staggers Act led to the bankruptcy of some of the nation's largest railroads and massive deferred maintenance of the national railroad network. Under the regulatory structure put in place pursuant to the Staggers Act, the railroad industry in the United States has evolved to become the most efficient and low cost in the world. All shippers in the United States benefit from this efficiency and cost effectiveness. Yet the NITL would place this national asset at risk by

reversing the very steps that the railroads have taken over the past 30 years to become more efficient and cost effective. It would do this for the sole purpose of providing rate reductions to coal and chemical shippers, which have fared very well under the current regulatory structure.

3. The NITL acknowledges that mandated switching is inefficient and costly, but completely ignores the effects its proposal would have on the viability of the national railroad system. The NITL focuses on reduction in railroad revenue, but disingenuously ignores the effect this reduction would have on railroad net income and the railroads' ability to maintain and expand our national railroad network. The fact is that even if one were to accept the NITL's understated estimate of revenue loss and ignore the increased costs of mandated switching, the railroads' ability to make capital investments in the railroad network would be substantially reduced by the loss of \$1.29 billion in revenues *per year*.

The actual outcome would be much worse, however. If the NITL's estimate of lost revenue per car is applied to the FTI estimate of impacted cars, then the NITL proposal would wipe out revenue equivalent to more than 80 percent of the Class I railroads' total capital budgets. If reasonable estimates of direct costs are included, the revenue losses would be in excess of the Class I railroads' entire capital expenditures. Indirect costs would add to this devastating impact.

4. The NITL's argument that additional traffic would appear to offset these losses does not withstand even cursory examination. The NITL provides no evidence or analysis to support its argument. Analysis shows that railroads would need to increase coal and chemical traffic dramatically to offset the revenues lost due to mandated switching. Yet

prospects for both domestic and export coal are not bright, and chemical traffic does not seem likely to increase significantly in response to lower rail rates. And, even in the extremely unlikely event that this traffic was to somehow materialize, the railroads would need to increase capital expenditures to accommodate the volume increase.

The railroad network in the United States is a national asset. Under the current regulatory structure, it has become the best in the world. Unlike the nation's highways, waterways, ports, and airports, the railroad network is privately financed. The public interest is best served by maintaining it in good condition and expanding it to meet growing demand in the future, and therefore there is strong public interest in a viable railroad industry that has the financial wherewithal to maintain and grow the network. The railroad industry today is financially viable due, in large part, to 30 years of rationalizing the network and simplifying its operations, including significantly reducing switching. The NITL proposal directly attacks – and seeks to reverse – the very steps the railroads have taken to become financially viable. There is a strong possibility that, were the NITL to prevail, it would destroy the financial viability of the railroad industry and place the future of the national railroad network at risk. This is not a far-fetched outcome – it happened less than 40 years ago. The NITL would do this in the name of providing rate reductions to a subset of shippers that already have fared well under the current regulatory structure. There is no public benefit in taking that risk.

VERIFICATION

I, William J. Rennicke, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 28, 2013.



William J. Rennicke

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**STB EX PARTE NO. 711
PETITION FOR RULEMAKING TO ADOPT
REVISED COMPETITIVE SWITCHING RULES**

**REPLY VERIFIED STATEMENT
OF
PHIL C. IRELAND
CONSULTANT
JEXI, INC.
AND
RODNEY E. CASE
PARTNER
OLIVER WYMAN, INC.**

May 30, 2013

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***Statement of Phil C. Ireland, Consultant, Jexi, Inc. and Rodney E. Case, Partner,
Oliver Wyman, Inc.***

I. Introduction and Qualifications

I am Phil C. Ireland, an independent consultant of Jexi, Inc. I was a railroad executive with the Canadian Pacific Railroad (CP) for more than 29 years before retiring in January 2013. The CP is a transcontinental railroad in Canada with direct links to major North American ports, including Vancouver and Montreal, and subsidiary operations in the United States.

My last position at CP was Vice President Service Design & Asset Optimization. I was responsible for managing the execution of the operating plan, which governs all shipment/train movements in both Canada and the United States. I was tasked to achieve target performance by optimizing asset utilization while minimizing operating expenses and capital expenditures. I directed all aspects of the railroad operating plan, including delivering on customer commitments, sizing the mobile and capital assets required to execute the plan, and driving continuous improvement in operations. My experience at CP provided me with an in-depth operational knowledge of the rail networks of both Canada and the United States.

Prior to becoming Vice President Service Design & Asset Optimization, I held a variety of management positions in mechanical services, internal audit/consulting services, marketing, and interline management, and have worked with senior executives at all of the major North American railroads.

I have a Bachelor of Applied Science in mechanical engineering from Queen's University and a Masters of Business Administration with a concentration in strategy from McGill University. I am a registered Professional Engineer with Professional Engineers of Ontario (PEO) and the Association of Professional Engineers and Geoscientists of Alberta (APEGA). I am also a member of the Institute of Corporate Directors and hold an ICD.D certification.

I am Rodney E. Case, a Partner with Oliver Wyman, Inc. I specialize in transportation operations planning, strategy development, and performance management, notably for the rail freight industry.

Prior to joining Oliver Wyman, I was the Director of Service Design at Canadian Pacific Railroad, where I led the preparation of the Integrated Operating Plan (IOP). Key elements of the IOP included service level impacts, system cost analysis, train path planning, train schedule creation, crew and locomotive resource requirements, railcar fleet velocity impacts, rail yard and intermodal terminal workloads, port terminal schedules, connections to foreign railroad services, and implementation into daily operations. I was also a Project Manager for the Executive Team of Field Operations at CP. Key projects included railcar acquisition, national labor contract negotiations, and interline railroad coordination.

In 2003, I organized and served as co-chair of the International Rail Planning Conference in Calgary. This was a first of its kind event that brought together rail industry professionals from around the world strictly for the purpose of comparing rail planning approaches. The result has been to establish a global network of freight railroad planners that now meets at conferences conducted annually to share state-of-the-art best practices in rail planning.

I received a Bachelor of Engineering Science in civil engineering from the University of Western Ontario and an M.S. in logistics and supply chain management from Cranfield University (UK).

In addition to our individual qualifications, Phil Ireland and I jointly received the 2003 Franz Edelman Award for Achievement in Operations Research and the Management Sciences. This honor was in recognition of the Canadian Pacific Railroad's innovative approach to railroad scheduling. It is considered to be the equivalent of the "Tech World Series" by the professionals

in this field and is sought after by operations researchers and planners around the world. The organization sponsoring the award was the Institute for Operations Research and the Management Sciences (INFORMS), an international scientific society with 10,000 members, including Nobel Prize laureates, dedicated to applying scientific methods to help improve decision-making, management, and operations.¹

Our Verified Statement responds to information submitted to the Surface Transportation Board (STB) by the National Industrial Transportation League (NITL) in support of the NITL's request for a change in U.S. regulations that would provide mandated switching for numerous shippers that today are served by a single railroad.² In response to the NITL's discussion of the Canadian experience with interswitching, we discuss the fundamental differences between the rail networks and competitive market environments found in Canada and the United States, and explain that Canada's experience with interswitching provides no support for the NITL's claim that the introduction of mandated switching would have no adverse impact on the U.S. rail network.

¹ "Canadian Pacific Railways Streamlined Railroad Scheduling Wins INFORMS Tech World Series," INFORMS press release, May 6, 2003.

² Surface Transportation Board, Ex Parte No. 711, Petition for Rulemaking to Adopt Revised Competitive Switching Rules, Opening Submission of The National Industrial Transportation League, March 1, 2013 ("NITL Opening Submission").

II. Summary of Findings

The NITL has referred to the Canadian experience with interswitching to support consideration of its proposed new rules for mandated switching of rail traffic between carriers in the United States.³ While the NITL has never specified exactly what is to be gleaned from examining the Canadian experience, it appears to be using Canada in an attempt:

- To show that a mandated switching regime has been successfully implemented somewhere else;
- To demonstrate that mandated switching does not produce disruption to rail operations or create additional costs;
- To predict the amount of mandated switching that would occur in the United States if mandated switching were available to U.S. shippers.

The NITL relies on the Canadian experience with interswitching to suggest that the Board need not be concerned with the likely impact of imposing a mandatory switching regime in the United States. But interswitching in Canada differs significantly from the NITL proposal, and the Canadian rail system – its history, development, structure, markets, and shippers – is fundamentally different from the U.S. rail system. These differences in rail systems are summarized in Exhibit II-1.

³ NITL Opening Submission, op. cit.

Exhibit II-1: Overview of Canada/U.S. Rail System Differences

| Canada | United States |
|---|--|
| Partially publically funded development of rail network | Privately developed rail network |
| Heavily subsidized rail system, until recently | No subsidies for rail freight system |
| History of interswitching going back 100 years; sole expansion 25 years ago | No history of regulated interswitching or expansion of interswitching |
| Two Class I railroads, few shortlines | Seven Class I railroads, many shortlines |
| Population 33 million | Population 309 million |
| 6 major metro areas on an east-west axis | 51 major metro areas spread throughout the country |
| Linear, parallel, east-west rail network | Complex, multiple hub-and-spoke networks |
| Limited routing options for shippers | Hundreds of routing options |
| 67 interchange points (CN/CP) | Potentially 1,500 interchange points |
| Export-oriented market (ports/cross-border) | Domestic-oriented market |
| Large shipper export groups | Multitude of shippers of varying size and with diverse shipping objectives |

After summarizing our conclusions below, our statement describes in detail these differences and explains why they undermine the NITL's reliance on the Canadian experience to predict the outcome of mandated switching in the United States.

1. Implementation history and objectives: The Canadian government's decision to adopt interswitching over 100 years ago and expand it 25 years ago should have no bearing on the question of whether U.S. regulators should adopt a similar switching regime today. The history of interswitching in Canada shows that interswitching was designed to accomplish governmental objectives that are fundamentally different from the objectives of U.S. rail regulation.

Since its founding, Canada has embraced active government subsidy and ownership of railroads at both the federal and provincial levels as a means to further political and economic objectives. One of Canada's two Class I railroads (Canadian National – CN) was government owned for more than 70 years (until 1995), with the government subsidizing both operating losses and capital expenditures. Both CN and Canada's other federally regulated railroad, Canadian Pacific (CP), received various forms of subsidy for marginal branch lines and for the

transport of grain for decades.⁴ Since neither CN's nor CP's capital requirements historically were solely reliant on revenue adequacy, it was therefore possible to impose various regulations and competitive policies to serve social, regional, or industrial development objectives rather than to support the ability of the carriers to earn returns adequate to support full capital requirements.

In addition, the primary reasons for adopting interswitching were the result of unique conditions found in Canada that focused on minimizing duplicative capital investment and serving other governmental objectives. Interswitching regulation dates back over 100 years in Canada, and was originally instituted in part to stop the overbuilding of rail lines in urban areas.⁵ Interswitching was not implemented to produce price competition. Indeed, at the time, Canadian railroads did not compete on the basis of price. When current Canadian interswitching regulations were enacted in 1987 as part of broad industry deregulation, one of the two Canadian Class I carriers was still government owned (and nearly 60 percent of the network supported by government operating and capital subsidies).⁶ No changes to interswitching limits have occurred in Canada since, and indeed the Panel appointed by the government to review the relevant legislation has stated that the expansion of interswitching "would worsen the market-distorting aspects of the interswitching rate regime and would be a step backward."⁷

Canada thus has a 100-year history of regulated interswitching "built in" to its system, and the one change in interswitching limits in Canada took place 25 years ago, under radically different political, network, and market conditions – including government ownership/subsidy of large portions of the rail system. This experience cannot provide any useful insights into the potential impacts of mandated switching on the U.S. rail system, which has no history of regulated

⁴ For example, the Canadian government has provided operating subsidies to the railroads for the retention of uneconomic branch lines and has provided capital to the railways under the Prairie Branch Line Rehabilitation program.

⁵ Vision and Balance: Report of the Canada Transportation Act Review Panel, June 2001, p. 63.

⁶ Canadian National accounted for 59.6 percent of total rail kilometers in 1987. Source: Statistics Canada, Table 404-0010.

⁷ Vision and Balance, op. cit., p. 63.

interswitching and where all freight railroads are privately owned and must fund their capital expenditures through income earned from rail operations.

2. Impact on service levels and costs: Canada's 100-year experience with interswitching also provides no guidance in predicting how the introduction of a new, mandated switching regime would affect service levels or railroad costs in the United States. Canada is a much smaller country than the United States in terms of population and population density, and thus has lower production/consumption needs and simpler distribution patterns. It has only a half-dozen large metropolitan regions, located in a narrow band along the southern edge of Canada, in close proximity to the United States border. To serve these markets as they developed, the Canadian rail network evolved into two major railroads, oriented east to west, with networks that are largely linear and parallel. Reflecting the simplicity of the Canadian rail system, there are only 67 locations between the two Class I federally regulated railroads where interswitching can occur.

By comparison, the United States has 51 major urban areas, located on all three coasts and throughout the nation's interior. To serve these numerous and diverse population centers, the United States has a significantly different, far larger, and more complex rail system, comprising seven major railroads with multiple interconnected hub-and-spoke systems. The U.S. system is a "spider web" of rail lines that present coordination and management challenges that are not present in Canada. There are potentially 1,500 interchange points in the United States where mandated switching could occur, compared to 67 interswitching locations in all of Canada. Furthermore, there are no rail hubs in Canada that come close to the level of complexity of U.S. urban rail hubs such as Chicago, St. Louis, Houston, or Kansas City. Lower traffic densities and a less complex network structure mean that Canada can provide no example of the risk of

congestion that the U.S. rail system could face under mandated switching, as a result of unpredictable increases in localized activity.

3. Frequency of interswitching: Finally, the NITL claims that the frequency of interswitching in Canada is very low, and therefore the Board should not expect that the introduction of mandated switching in the United States would result in a large number of mandated switches. The NITL's discussion of the Canadian experience with interswitching and the frequency of interswitching, however, is both inappropriate and highly misleading.

First, the NITL's reference to annual rates of interswitching in Canada, where the railroad system evolved in tandem with interswitching, and carriers and shippers have had roughly 100 years to integrate interswitching into their commercial and operational relationships, says nothing meaningful about the volume of mandated switching, and the resulting costs and inefficiencies, likely to occur during the extended period of time that would be required for the U.S. rail system to transition to a newly adopted regime of mandated switching. The two scenarios are simply not comparable.

Second, the NITL overlooks the fact that the amount of interswitching that occurs in Canada is not uniform across all regions and rail markets. The frequency with which mandatory switching is used in Canada, as in the United States, depends on specific market conditions and rail networks and thus cannot be generalized. For example, in Canada, low levels of interswitching are experienced for eastern traffic flows due to existing competitive constraints in export markets that account for almost half of all Eastern Canada rail movements. In short, there is no uniform Canadian experience with mandatory switching, and if the NITL proposal were adopted in the United States, likewise there would be no uniform U.S. experience of interswitching. This underscores the futility of the NITL's attempt to project future rates of

switching in the United States under its proposal based on sweeping assumptions and generalizations.

Finally, even if Canada's annual rate of interswitching could be viewed as indicative of anticipated transitional rates of interswitching in the United States, it would not support the NITL's estimate of the amount of switching that would occur in the United States under the NITL's proposal. We explain that the NITL made a number of errors, first in calculating the interswitching rate in Canada, and then in using its flawed calculations to estimate a U.S. switching rate. One obvious error in the NITL's calculations is the NITL's inclusion of U.S. traffic handled by CN's and CP's U.S. subsidiaries in the traffic that supposedly is subject to interswitching in Canada. Thus, even the NITL's misleading calculations of Canadian interswitching rates do not support the NITL's claim that mandated switching in the United States would result in only about 120,000 switches – *less than half* the number of carloads interswitched annually in Canada – even though the U.S. rail market is more than *seven times* larger than Canada's and has *22 times* the number of potential switching locations.

III. Interswitching Was Adopted in Canada to Advance Governmental Objectives That Are Not Relevant to the United States Today

Most Canadian railroads historically were built as instruments of government policy – initially to encourage confederation and settlement. The Railroad Guarantee Act of 1849, which guaranteed bond returns on all railways over 70 miles, led to rapid and sometimes excessive growth.⁸ Throughout the mid to late 1800's and early 1900's, the government built and owned a number of railways and rail lines. During 1917-1923, due to economic depression and railway bankruptcies, it nationalized the Canadian Northern, Grand Trunk Pacific, and Grand Trunk (absorbing C\$1.3 billion in debt) and merged them with the Canadian Government Railways to form the Canadian National Railways (now CN).⁹ CN remained in government hands until privatized in 1995; it lost money in most years prior to deregulation, with the government assuming its debt.

In addition, the Canadian government subsidized both CN and CP for the movement of grain in the West for decades. “Government subsidization of railway construction is a well-documented feature of Canada’s development. One of the more famous of these involvements by the government, the ‘Crows [Nest Pass] rate,’ provided farmers with a fixed rate for transporting grain produced in Western Canada for export.”¹⁰ This agreement included protection from competition in return for network additions. Further, “in the 1960s and 1970s, ad hoc programs were introduced to subsidize the railways,” which were losing money on grain traffic.¹¹ Finally, in 1983, the Western Grain Transportation Act (WGTA) was passed, which “established a

⁸ *The Railways of Canada for 1870-1*, John Malcolm Trout, Office of the Monetary Times, 1871, p. 57.

⁹ “Canadian National Railways,” The Canadian Encyclopedia (<http://www.thecanadianencyclopedia.com/articles/canadian-national-railways>). 1923 Canadian dollars.

¹⁰ Chapter 6—Federal Transportation Subsidies—The Western Grain Transportation Act Program, 1995 May Report of the Auditor General of Canada, Section 6.21.

¹¹ 1995 May Report of the Auditor General, op. cit., Section 6.22.

comprehensive program for the transportation of Western grain and paid a subsidy to the railways for transporting grain to specified export locations.”¹² This direct freight rail subsidy amounted to C\$633 million for the 1993-1994 crop year, for example.¹³ (The WGTA was terminated in 1995; currently, the railroads move grain under an annual revenue cap.)¹⁴

The market-distorting impacts of the presence and operation of CN, as a government-owned railroad for three-quarters of a century, subsidies to the freight rail industry throughout its history, and a revenue cap on a major commodity (since 1995), are unlike anything that can be found in the United States.¹⁵ Government ownership and subsidy of a large portion of the rail network in Canada until recently has meant that rail commercial policy and regulation have been subject to and influenced by larger government objectives, such as regional or industrial sector economic promotion. Canada’s deep legacy of government ownership and funding of the rail system, continuing through the 20th century, is fundamentally inconsistent with the primary reliance in the United States on the private, market-based development of the U.S. rail system.

Furthermore, interswitching was designed to accomplish governmental policy objectives that are not relevant today. The interswitching obligation currently set forth in Section 127 of the Canadian Transportation Act had its origins in Section 253 of the Railroad Act of 1903 and General Order No. 4988 of July 8, 1908; the latter set the interswitching limit of 4 miles. A primary goal of interswitching at the time was to avoid overbuilding of rail lines, particularly in

¹² 1995 May Report of the Auditor General, op. cit., Section 6.23.

¹³ 1995 May Report of the Auditor General, op. cit., Section 6.15.

¹⁴ The Canadian Transportation Agency annually determines the revenue caps for CN and CP for the movement of western grain. For the 2011-2012 crop year, for example, the Agency determined that the railroads exceeded their revenue cap and required them to pay back more than \$670,000. Source: Decision No. 477-R-2012, Canadian Transportation Agency website (<http://www.cta-otc.gc.ca/eng/ruling/477-r-2012>).

¹⁵ With the exception of a brief flirtation with government ownership as part of the restructuring of bankrupt U.S. northeastern railroads into Conrail.

municipalities.¹⁶ As a sparsely populated country with few urban areas, the available volumes of freight simply could not support a multitude of railroads.

Interswitching had nothing to do with price competition. A Panel commissioned by Canada's Parliament to conduct a policy review of the Canada Transportation Act ("CTA Review Panel") observed that "Interswitching rates originated in an era of rate regulation; they were designed to avoid overbuilding in urban areas and to ensure that a joint through rate could be calculated quickly and easily."¹⁷ Indeed, "For most of their history, the Canadian mainline railways were prohibited from competing on price through uniform regulated prices and competed instead on service levels."¹⁸ Until the passage of the National Transportation Act (NTA) in 1987, Canadian railroads were encouraged to agree upon common rates and charges.¹⁹ Thus, access in Canada was not about producing rate reductions through artificial competition, which is the NITL's express objective.

The interchange distance of 4 miles stayed in effect in Canada until 1987, when the NTA expanded the interswitching limit to 30 kilometers (18.6 miles). While the NTA started to move the Canadian system in the direction of market-based regulation, the government remained heavily involved in backing railroad operations and finances. For example, CN, one of only two Class I carriers at the time, continued to be government owned and subsidized.

Since 1987, the Canadian regulatory attitude toward interswitching largely has been one of inertia. Interswitching limits were unchanged in the 1996 Canada Transportation Act (CTA), which superseded the NTA and which is the current basis of Canadian railroad regulation. There

¹⁶ An Economic and Regulatory Framework for Rail Competitiveness, prepared for Alberta Transportation, March 18, 2003, p. 42; Jose A Gomez-Ibanez, Conferences on Railway Reform, September 18-19, 2004, p. 11.

¹⁷ Vision and Balance, op. cit., p. 63.

¹⁸ Straight Ahead: A Vision for Transportation in Canada, Transport Canada 2003, p. 26.

¹⁹ Surface Transportation Board, Ex Parte No. 705, Competition in the Railroad Industry, Joint Reply Comments of Canadian National Railway Company and Canadian Pacific Railway Company, May 27, 2011, p. 3.

have been attempts to expand interswitching limits further in Canada, none successful. It is widely recognized that the continuation of interswitching is an anomaly that is not consistent with the Canadian government's overall move toward more market-based regulation of railroads.

The CTA Review Panel in 2001 observed:

“In the Panel’s view, expanding the interswitching limits would worsen the market-distorting aspects of the interswitching rate regime and would be a step backward. The proposal ignores market conditions and the averaging effects of a fixed rate – all shippers pay the same rate, regardless of their circumstances. Although interswitching rates have long been a feature of the regulatory landscape, the Panel sees them partly as an anomaly, representing a trade-off between regulation and the market.”²⁰

The government agreed with the Panel’s assessment and chose not to extend the limits.²¹

Regulated interswitching has been part of the Canadian regulatory system for 100 years. It was adopted to accomplish objectives unique to the Canadian market and geography. It has existed in a system where government funding of railroads has been an accepted means of ensuring railroads’ financial viability. It was expanded with the support of one of two major Canadian railroads (CP, which stood to be a net recipient of interswitching) and at a time when the other major Canadian railroad (CN) was government owned. Interswitching is recognized to be inconsistent with more current views on the importance of market-based regulation, but it has remained, largely out of regulatory inertia. As a result, the Canadian experience with interswitching does not lend any support to the proponents of mandated switching in the United States, which has never had a history of mandated switching, where the public relies on private

²⁰ Vision and Balance, op. cit., p. 63.

²¹ Straight Ahead, op. cit., p.33.

railroads to make investment decisions about the railroad network, and where market-based regulation of railroad conduct has been highly successful in producing efficient and financially stable railroads.

IV. The Canadian Experience With Interswitching Does Not Provide a Model for Assessing the Impact of Mandated Switching on Service Levels and Costs in the United States

The NRTL would like the Board to believe that because rail service in Canada has not been disrupted as a result of interswitching, there is no reason to believe that mandated switching would create service disruptions in the United States. But interswitching practices in Canada do not provide a model for understanding the potential for service problems to occur and additional costs to accrue under mandated switching in the United States. As noted above, interswitching has been “built in” to the Canadian system for 100 years. The Canadian experience says nothing about the impact of imposing a new mandated switching regime on a system that has not previously had to deal with mandated switching. Moreover, the Canadian experience with interswitching in a simpler, east-west parallel rail network says nothing about how mandated switching would affect rail service in a high-volume, geographically dispersed, complex “spider web” rail network like that of the United States.

A. The Canadian and U.S. Rail Networks Are Different

The rail network in Canada is significantly different from the rail network in the United States, because the Canadian network developed primarily with an east-west orientation and to service a few population centers. As the Canadian Transportation Agency has recognized: “The railroad industry in Canada is unique in that the number of carriers is very small, with many rail lines being operated by only one carrier.”²² Canada’s rail network evolved to serve a country

²² Client Satisfaction Research 2009-2010, Canadian Transportation Agency (<https://www.otc-cta.gc.ca/eng/publication/railroad-industry>).

with a small, thinly distributed population spread along a largely east-west line running parallel to the northern border of the United States. The size and structure of the Canadian rail network is also the product of a national policy focused on resource development and export. As a result, the Canadian rail network connects a relatively small number of population centers and production areas to one another and to export markets. The relative simplicity of the Canadian rail network is seen in Exhibit IV-1 below.

Exhibit IV-1: Canadian Rail Network²³

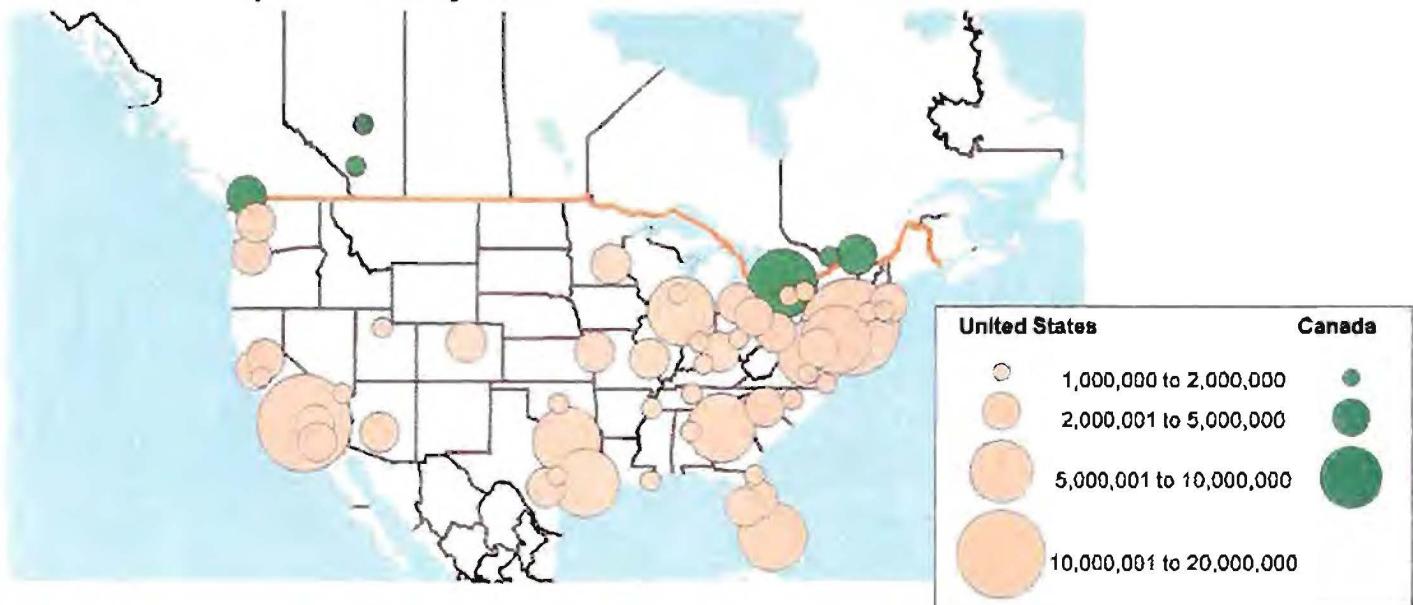


By comparison, the United States is the world's largest economy, with complex rail traffic flows dominated by products moving internally and destined for domestic consumption. The United States is not only nine times larger than Canada (309 million people versus 33 million);²⁴ it is also much more urban: Canada has only six metropolitan areas with more than one million people, versus 51 such metropolitan areas in the United States. Exhibit IV-2 below shows the vast differences in population density and the dispersion of population in the two countries.

²³ Source: Transport Canada.

²⁴ U.S. Census Bureau 2010 and Statistics Canada Census 2011.

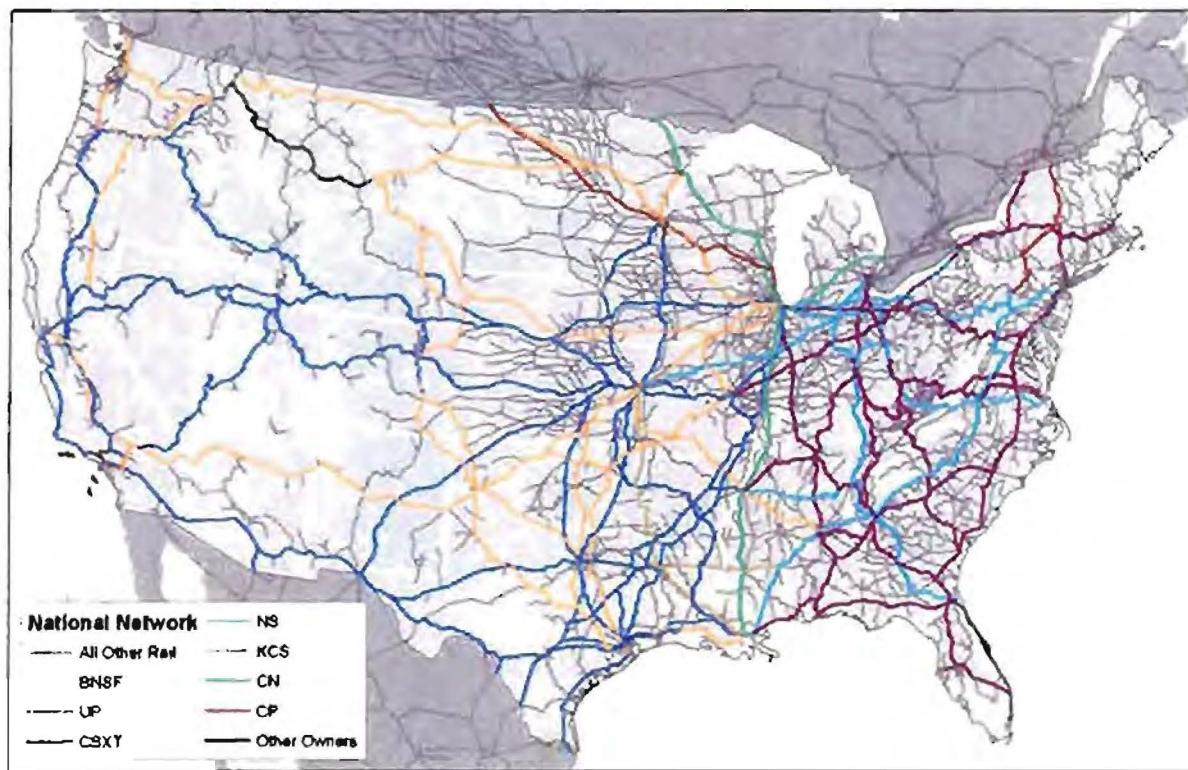
Exhibit IV-2: Population Density in Canada and the United States²⁵



High population density and the fact that the population is widely spread over the continent has resulted in a U.S. rail system that is a complex “spider web” of interconnected lines (Exhibit IV-3).

²⁵ Source: U.S. Census Bureau, Population Division, Annual Estimates of the Population of Metropolitan and Micropolitan Statistical Areas: Table 1, April 1, 2010 to July 1, 2012 (CBSA-EST2012-01), release date March 2013. Statistics Canada, Population and dwelling counts for census metropolitan areas and census agglomerations, 2011 and 2006 censuses. Oliver Wyman analysis. Year 2011 data was used for both the U.S. and Canada for consistency.

Exhibit IV-3: United States Rail Network²⁶



As shown in Exhibit IV-4, U.S. rail route miles are nearly five times Canada's, rail industry revenues are nearly seven times greater, and employees are five times as many. There is also a substantial difference in total traffic and traffic density, with the U.S. having seven times as many carloads and 31 percent more gross ton-miles per track-mile.

²⁶ Source: National Rail Freight Infrastructure Capacity and Investment Study, Association of American Railroads, September 2007, Figure 4.1.

Exhibit IV-4: Comparison of U.S. and Canadian Rail Industries

| | Canada | U.S. | Ratio: Canada to U.S. |
|--|----------------|--|-----------------------------|
| Number of Class I railroads | 2 (CN and CP) | 7 (BNSF, CSX, GTC, KCS, NS, SOO, and UP) | 1 to 3.5 |
| Number of regional/local railroads²⁷ | 36 | 560 | 1 to 15.6 |
| Total route miles²⁸ | 28,513 | 138,565 | 1 to 4.9 |
| Gross ton-miles (Class I)²⁹ | 376.1B | 2,698.6B | 1 to 7.2 |
| GTM^s per track-mile owned (Class I)³⁰ | 12.8 million | 16.8 million | 1 to 1.3 |
| Originated carloads (Class I, excludes intermodal)³¹ | 2.5 million | 17.6 million | 1 to 7.0 |
| Total employees³² | 33,624 | 175,940 | 1 to 5.2 |
| Total freight revenues³³ | \$10.1 billion | \$68.9 billion | 1 to 6.8 |

Different levels of scale and complexity in the two countries have a direct impact on the potential risk of congestion and service deterioration that can result from mandated switching. A rail network like that in the United States, which has high traffic volumes, high traffic density, numerous interconnections with other railroads, and a broad web of rail lines, would be far more susceptible to service interruptions resulting from the unpredictable and unstable traffic flows that would be created by mandated switching.

²⁷ Transportation in Canada 2011, Transport Canada, p. 78; Railroad Facts, 2012 edition, Association of American Railroads, p. 3.

²⁸ Transportation in Canada 2011, op. cit., Statistical Addendum, p. A110; Railroad Facts, 2012 edition, op. cit., p. 3. Canadian data converted to imperial units.

²⁹ Table 404-0014, Statistics Canada: Analysis of Class I Railroads, 2009 revised, Association of American Railroads, line 531. Data for the year 2009, the most recent year that Canadian data was available. The GTM values exclude locomotives. Canadian data for CN and CP only, converted to imperial units.

³⁰ Tables 404-0010 and 404-0014, Statistics Canada: Analysis of Class I Railroads, 2009 revised, op. cit., lines 343 and 531. Data for the year 2009, the most recent year that Canadian data was available. The GTM values exclude locomotives. Canadian data for CN and CP only, converted to imperial units.

³¹ Table 404-0002, Statistics Canada: Weekly Railroad Traffic, 2011 Annual Report, Association of American Railroads; Analysis of Class I Railroads, 2011, Association of American Railroads, line 553; Railroad Facts, 2012 edition, op. cit., pp. 78-79. Class I railroads only, excludes intermodal traffic.

³² 2012 Rail Trends, Railway Association of Canada, p. 5; Railroad Facts, 2012 edition, op. cit., p. 3.

³³ 2012 Rail Trends, op. cit., p. 35; Railroad Facts, 2012 edition, op. cit., p. 3. Canadian revenue restated to U.S. dollars using the exchange rate in effect on December 31, 2011 (0.9789). Exchange rate information provided by X-Rates.com.

Association of American Railroads (AAR) witness Mr. Rennicke described in his opening statement in this proceeding the types of yard operations that can be affected by mandated switching.³⁴ As he explained, a major risk from mandated switching comes from interference with complex yard operations. Yards are often configured to allow the railroad to form blocks of cars destined to specific intermediate yards or destinations. Since a U.S. carrier serves numerous destinations located in different areas of the country and interchanges with numerous railroads, complex yard operations are needed to form blocks of cars that can be efficiently directed to their appropriate destination. The 40,000+ points where traffic can be generated create over 1.5 billion possible origin-destination combinations in the United States. Yard operations in the United States thus must accommodate the need to direct rail cars over this vast system in efficient car blocks. The Canadian railroads' simple east-west orientation does not present these complicated logistics.

Mr. Rennicke explained that mandated switching interferes with the efficient blocking of cars in yards by requiring the breaking up of car blocks and holding cars to be switched on separate tracks. Car blocks must still be formed to accommodate shippers, but existing yard tracks cannot be efficiently used for the resulting blocks and additional track capacity would be needed. The resulting congestion in yards could seriously impact the quality of service for all shippers using the yard.

These concerns are far less important in Canada. In Canada, the impact of mandated switching is far less serious due to the fact that the Canadian rail network is essentially linear and parallel (see Exhibit IV-1), serving a few major urban centers that are effectively in a line from east to west. For example, either CN or CP can operate a single intermodal or merchandise train to serve

³⁴ Surface Transportation Board Ex Parte No. 711, Verified Statement of William J. Rennicke, March 1, 2013, pp. 41-54 ("Rennicke Verified Statement").

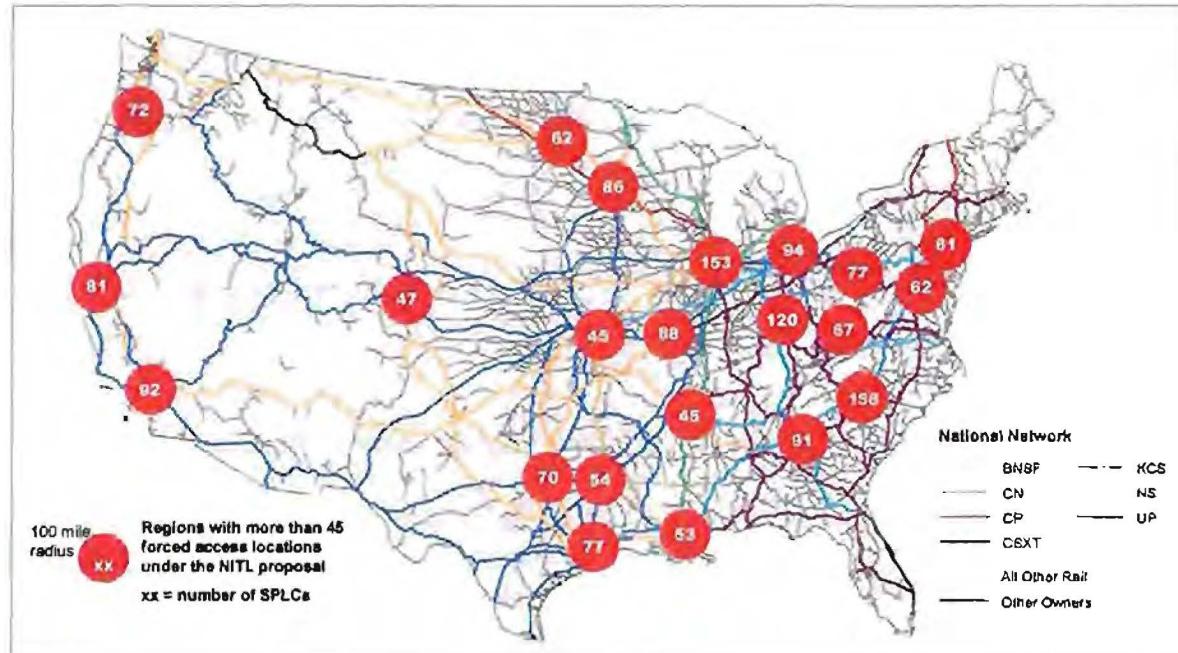
every key Canadian market. In Canada, there are essentially only two routing options, with no overall discernible differences in service offering. Thus, CN and CP are likely to experience little if any “instability” in operating plans from the selection of alternative routing options by shippers.

B. Canada Has Very Few Interchanges and Is a Simpler Rail Network Than the United States Rail Network

The vast difference in the number of potential interchange locations in the United States and Canada also undermines any comparison of the service impact of mandated switching in the two countries. In Canada, there are only 67 interswitching locations between CN and CP in the entire country. In the United States, there are potentially 1,500 interchange points across the U.S. rail network (see Exhibit IV-5).³⁵ Numerous urban areas in the United States have as many potential interswitch locations as the entire country of Canada.

³⁵ Oliver Wyman analysis of March 2007 Centralized Station Master Rule 260 points, Class I carriers only. Includes both operational and “paper” junctions.

Exhibit IV-5: U.S. Rail Network with Major Forced Access Regions Under the NITL Proposal³⁶



There are no counterparts in Canada to the complex network of yards and terminals that have evolved in the United States to accommodate the multitude of routes and markets available to U.S. shippers. Intersecting corridors and multiple mainline routes create thousands of possible route combinations and permutations in the United States that do not exist in Canada. There is nothing in Canada, for example, that compares to Chicago, St. Louis, Houston, or Kansas City, in terms of rail network complexity. Exhibit IV-6 compares rail lines in Chicago, the third most populous city in the U.S., and Toronto, the largest population center in Canada. Chicago, with a population of 9.5 million, is the busiest rail hub in North America, with 37,500 railcars per day, passing through 2,800 miles of track, involving six Class I railroads, and representing 25 percent of all U.S. rail traffic.³⁷ Toronto, in comparison, has just two Class I railroads serving it. It has been the authors' experience that Toronto only sees on the order of 15 percent of the volumes of

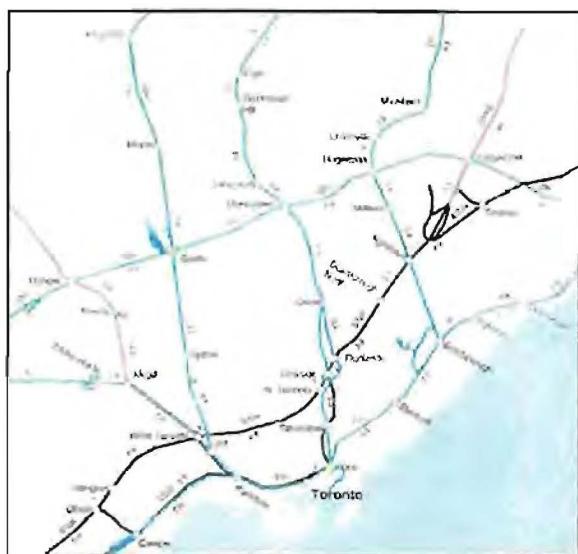
³⁶ Source: Rennicke Verified Statement, op. cit., p. 97.

³⁷ "Chicago CREATE Original Feasibility Study 2007," p. 37 (www.createprogram.org/feasibility.htm); "About CREATE," October 2011, p.3 (www.createprogram.org/about.htm).

the Chicago rail hub. There is simply no valid comparison that can be made between the scale and complexity of rail activity even for Canada's most populous city and key population/rail activity hubs in the United States.

Exhibit IV-6: Comparison of U.S. and Canadian Rail Hubs: Toronto vs. Chicago³⁸

Toronto, Ontario



Chicago, Illinois



The risks of a service disruption resulting from mandated switching in a network with simple routing choices and interchange options cannot begin to compare to the risks of instability, congestion, and service deterioration that would be incurred by adding complexity and uncertainty to the already complex U.S. rail network through mandated switching. Canada does not share any structural characteristics with the U.S. network that would make it an appropriate and usable model for understanding the impacts of mandated switching on U.S. rail performance.

³⁸ Source: Professional Railroad Atlas of North America, 1999.

and service levels. It has neither the size nor the complexity to generate the kinds of risks the U.S. system would face under mandated switching.

C. The Canadian Rail System Developed With a Mandated Switching Regime, Whereas Mandated Access Is Inconsistent With the Historical Development of the Rail System and Infrastructure of the United States

Finally, the Canadian rail system already has evolved to deal with interswitching. Canadian railroads have had decades to determine what capacity is needed to manage carloads that are interswitched. Indeed, as noted above, the original objective of interswitching was to discourage duplicative infrastructure. Rail infrastructure was therefore built consciously to accommodate the combined traffic flows of two carriers.

An example is the CN/CP interchange at London, Ontario. At London, a train can leave the CP yard without entering onto or crossing the mainline, head onto some industrial tracks and go south approximately 1 km. At this point, the train crosses the CN mainline and goes straight into the CN marshaling yard. In sum, this interchange does not occupy the mainline of either railroad (other than crossing over the CN mainline) – it is simply a “yard to yard” move.

Of course, there could be some places in the United States with similar conditions, but the different scale of volume, route complexity, and options – together with no history of mandated interswitching – would create continuous instability in U.S. railroads’ operating plans. As explained by Mr. Rennicke, a primary driver of operating problems that would result from the introduction of mandated switching in the United States would come from the mismatch between infrastructure that has been put in place to handle existing traffic volumes and the additional

infrastructure that would be needed to deal with mandated switching.³⁹ Railroads would not have the incentive to add infrastructure just to facilitate the transfer of traffic to a competitor, but the lack of infrastructure would create congestion that would affect all shippers.

These infrastructure concerns have been worked out over decades of experience with interswitching in Canada. But if mandated switching were introduced into a system, like the U.S. system, that had not evolved to accommodate mandated switching, the mismatch between existing infrastructure and infrastructure necessary to deal with the additional switching load could lead to severe service failures.

³⁹ Rennicke Verified Statement, op. cit., pp. 73-78.

V. The Frequency of Annual Interswitching in Canada Cannot Be Used to Project the Likely Frequency of Mandated Switching in the United States If the NITL Proposal Is Adopted

In addition to being an invalid model for understanding rail service risks, Canada's annual rate of interswitching does not provide a reasonable basis for predicting the potential frequency of interswitching under mandated switching in the United States, due to the different histories of regulation in Canada and the U.S., different rail traffic flows, different competitive dynamics of end markets, and different levels of shipper control of key commodities. Moreover, the NITL's description of the frequency of interswitching in Canada is highly misleading. There is no homogenous experience in Canada with interswitching that can be used to reasonably predict the likely frequency of mandated switching in the United States.

A. The NITL's Claims Regarding Frequency of Interswitching in Canada Are Incorrect

One of the NITL's key arguments is that the Board should not worry about the impact of mandated switching on service levels in the United States, because switching will not be frequently used by shippers. The NITL points to the Canadian experience to suggest that mandated switching is infrequent even where it is available. The NITL's claims regarding the frequency of interswitching in Canada are highly misleading and provide no support for the NITL's estimates of the level of switching that would occur in the United States under mandated switching.

As an overarching matter, the NITL relies on a faulty comparison when it tries to use annual interswitching rates in Canada, where interswitching has been in place for 100 years, to project the levels of switching that could take place in the United States under a newly adopted

mandatory switching provision. The rail network in Canada and the relationships between individual carriers and each of their shippers have evolved over decades against the backdrop of a Canadian interswitching regime. By contrast, introducing mandatory switching in the United States, where the rail network and long-established commercial relationships have developed without such a regime, can be expected to result in entirely different transitional issues, creating the prospect for significantly greater rates of interswitching and resulting dislocations and inefficiencies. In short, quite apart from the many other problems with the NITL's comparison, its effort to use annual interswitching rates in Canada to project how much switching would take place upon the introduction of mandated switching in the United States is conceptually flawed at the outset.

In any event, the NITL's calculations of interswitching frequency in Canada do not support its claim that the introduction of mandated switching in the United States would lead to only a slight increase in switching activity. As shown in Exhibit V-1, the NITL claims that in 2007, there were 279,900 carloads interswitched in Canada, which they state constitutes 3.76 percent of total Canadian carloads.⁴⁰ However, the NITL also claims that only about 120,000 carloads would likely be switched in the U.S. under the NITL's proposal (for the four largest Class I's), *less than half* the number switched in Canada, despite the far greater size of the U.S. rail market, the larger number of potential switching locations in the United States, and the greater scope of the NITL's proposed mandated switching (e.g., its application to interchanges within 30 miles versus 30 kilometers/18.6 miles).⁴¹

⁴⁰ NITL Opening Submission, op. cit., p. 60.

⁴¹ NITL Opening Submission, op. cit., p. 60.

Exhibit V-1: NITL Assertions for U.S. and Canadian Switching, 2007⁴²

| | Carloads Switched | Out of Total Carloads | Total Switching Locations |
|---------------|---|-----------------------|---------------------------|
| Canada | 279,900 (actual) | 7,442,000 | 67 |
| United States | 120,000 (NITL projected, four Class I's only) | 31,458,900 | -1,500 |

But even if the NITL's assumed 3.76 percent switching rate assumption was accurate, and it is not, as we explain below, this assumption does not support its claims about the amount of switching that would occur in the United States. If only 3.76 percent of estimated 2007 U.S. carloads (based on our corrected data) were switched under the NITL's mandated switching regime, this would amount to 717,900 carloads switched annually in the United States, or nearly *six times* what the NITL claims would be switched under its proposed rule change (see Exhibit V-2). This fact further undermines the NITL's claim that its mandated switching proposal would have relatively little impact on the U.S. rail system.

Exhibit V-2: Impacted Carloads Using the NITL Percentage Assumption for Switching, 2007⁴³

| | Total Carloads | NITL Assumed % of Switching | Resulting Impacted Carloads |
|--|----------------|-----------------------------|-----------------------------|
| Canada (NITL) | 7,442,000 | 3.76% | 279,900 |
| United States | 31,459,000 | 3.76% | 1,182,900 (calculated) |
| United States (Corrected, see Exhibit V-3) | 19,094,000 | 3.76% | 717,900 |

Moreover, the NITL's assumption that 3.76 percent of cars are switched in Canada is seriously flawed. The NITL's calculation is based on CN and CP traffic. CN and CP both own

⁴² NITL Opening Submission, op. cit., pp. 60-61. 2007 data used, as this is the basis of NITL's calculations. Numbers may not add due to rounding. The NITL projected impacted carloads for BNSF, CSX, NS, and UP only.

⁴³ NITL Opening Submission, op. cit., pp. 60-61; Analysis of Class I Railroads 2007, op. cit., lines 553 and 576; Railroad Facts, 2008 edition, Association of American Railroads; Weekly Railroad Traffic 2007 Annual Summary, Association of American Railroads; Oliver Wyman analysis. Numbers may not add due to rounding.

and operate rail lines in the United States and move goods between U.S. origins and destinations, as well as between Canadian origins and destinations (as well as U.S. to/from Canada). The NITL appears to have based its interswitching calculation not just on the Canadian traffic of CN and CP that would be subject to Canadian interswitching rules if the geographic requirements are met (30 kilometers from an interchange location), but on the *total* traffic of both railroads, which includes all of their U.S. traffic and their Canadian intermodal traffic (which is not subject to regulated interswitching). By improperly inflating the number of total carloads, the NITL has misleadingly reduced the apparent percentage of Canadian traffic that is interswitched.

To correct the NITL's misleading calculation, we excluded U.S. subsidiary carloads and Canadian intermodal carloads to determine the size of the 2007 Canadian carload market that could be subject to interswitching. Based on this analysis, we arrived at 3.1 million Canadian carloads potentially subject to interswitching, versus the NITL calculation of 7.4 million (Exhibit V-3). Similarly, we corrected total 2007 U.S. carloads to exclude intermodal traffic, resulting in a figure of 19.1 million U.S. carloads potentially subject to interswitching.

Exhibit V-3: Corrected Carload Totals for Canada and the United States, 2007⁴⁴

| | Total Carloads (NITL Assertion) | Excluded: Intermodal | Excluded: Domestic U.S. Traffic on Subsidiaries | Excluded: Received Traffic (Not Originated on Carrier) | Added: U.S.-Originating Traffic Terminating in Canada | Actual Carloads Subject to Interswitching |
|---------------|---------------------------------|----------------------|---|--|---|---|
| Canada | 7,442,000 | (1,870,000) | (1,816,000) | (956,000) | 257,000 | 3,095,000 ⁴⁵ |
| United States | 31,459,000 | (12,365,000) | n/a | n/a | n/a | 19,094,000 |

⁴⁴ NITL Opening Submission, op. cit., pp. 60-61; Analysis of Class I Railroads 2007, op. cit., lines 553 and 576; Railroad Facts, 2008 edition, op. cit.; Weekly Railroad Traffic 2007 Annual Summary, op. cit.; Class I Freight Commodity Statistics, Association of American Railroads; Tables 404-0021, 404-0022, and 404-0002, Statistics Canada; Oliver Wyman analysis. Numbers may not add due to rounding.

⁴⁵ Note that the Canadian carloads do not add up to 3,095,000 due to rounding and the use of different information sources. NITL witness Mr. Maville derived his Canadian carload figure from the annual reports of CN and CP, resulting in 3,057,000 carloads. Oliver Wyman derived its Canadian carload figure, shown above, from data provided by Statistics Canada and the Association of American Railroads. As a result, our Canadian carload total is 38,000 carloads higher (a difference of one-half of one percent).

As shown in Exhibit V-4, the corrected data suggests that the actual rate of interswitching for Canadian carload traffic potentially subject to interswitching is 9.04 percent. Applying this figure to the U.S. rail carload market would result in approximately 1.7 million carloads interswitched.

Exhibit V-4: Corrected Estimate of 2007 Carloads Impacted by Mandated Switching, 2007⁴⁸

| | 2007 Corrected Total Carloads | Impacted 2007 Canadian Carloads | Implied Switching Percentage | Resulting Impacted 2007 U.S. Carloads |
|--|-------------------------------|---------------------------------|------------------------------|---------------------------------------|
| Canada (CN/CP) ⁴⁷ | 3,095,000 | 279,900 | 9.04% | |
| United States (7 Class Is) ⁴⁸ | 19,094,000 | | 9.04% | 1,726,700 |

The NITL also presents an alternative, but equally flawed basis for claiming that interswitching is rare in Canada. It claims that about 40 percent of Canadian carloads are “exposed” to interswitching, because they are within the 30 km interswitching limits, and of that 40 percent, “less than one-tenth” are interswitched.⁴⁹ The NITL then uses its assumption of a one-tenth diversion rate to estimate the amount of U.S. traffic that would actually be diverted under the NITL proposal. Once again, the NITL’s 10 percent diversion rate is flawed, because the NITL failed to exclude U.S. and intermodal carloads from its total for Canadian carloads “exposed” to interswitching. If the NITL is correct that 40 percent of Canada’s relevant carloads are “exposed” to interswitching, that would mean that 40 percent of 3.1 million carloads, or about 1.2 million carloads, are actually “exposed” to interswitching in Canada. Using this corrected estimate of the number of carloads “exposed” to interswitching, the number of carloads

⁴⁶ NITL Opening Submission, op. cit., p. 60; Analysis of Class I Railroads 2007, op. cit., lines 553 and 576; Railroad Facts, 2008 edition, op. cit.; Weekly Railroad Traffic 2007 Annual Summary, op. cit.; Class I Freight Commodity Statistics, op. cit.; Tables 404-0021, 404-0022, and 404-0002, Statistics Canada; Oliver Wyman analysis. Numbers may not add due to rounding.

⁴⁷ Carloads subject to Canadian interswitching rules; includes Canada-originated carloads (CN/CP) and U.S.-originated carloads imported to Canada (assumes CP/CN as the only Canadian carriers interchanging with U.S. rail carriers). Excludes carloads of U.S. subsidiaries and Canadian intermodal.

⁴⁸ Excludes intermodal.

⁴⁹ NITL Opening Submission, op. cit., p. 60.

actually interswitched (279,900) would represent nearly one in four exposed carloads, or a 23 percent diversion rate (Exhibit V-5).

Exhibit V-5: Estimate of 2007 Canadian Carloads “Exposed” to Interswitching, 2007

| | Total Canadian Carloads | 40 Percent “Exposed” to Interswitching | Actual Carloads Interswitched | Derived Diversion Rate (279,900 Carloads Diverted) |
|-------------------------------------|-------------------------|--|-------------------------------|--|
| NITL Diversion Claim ⁵⁰ | 7,442,000 | 2,977,000 | 279,900 | 9.4% |
| Corrected Calculation ⁵¹ | 3,095,000 | 1,238,000 | 279,900 | 22.6% |

The NITL's assumptions about the rate of diversion are understated for yet another reason. The NITL claims that its proposal before the STB would limit mandated switching to movements for which there is no effective intramodal or intermodal competition. But the 40 percent of Canadian carload traffic the NITL claims is “exposed” to interswitching because the traffic falls within an interswitching district includes traffic subject to truck, ship, and other competition. There is no reason to believe that Canadian truck- and other-competitive traffic that is included in the “exposed” traffic in Canada would experience a significant rate of interswitching for competitive purposes, because the competitive nature of this traffic already restrains rate levels.

Obviously, if the NITL counted Canadian traffic as “exposed” only when it met the terms of its proposal for U.S. mandated interswitching (i.e., no effective competition), then the actual pool of Canadian traffic “exposed” to interswitching would be much smaller, and therefore the diversion rate would be correspondingly higher. For illustrative purposes, if half of Canadian carloads exposed to interswitching had no other competitive options, then the 279,900 carloads

⁵⁰ NITL Opening Submission, op. cit., p. 60.

⁵¹ See footnotes for Exhibit V-1. Numbers may not add due to rounding.

interswitched would represent a diversion rate of 45 percent (based on the corrected estimate of 2007 carloads).⁵²

Finally, as we explain below, any calculations relating to the Canadian experience with interswitching on an aggregate, country-wide basis would be meaningless in assessing the likely frequency of interswitching that would occur in the United States under the NITL proposal. There is no homogenous interswitching experience in Canada. The amount of interswitching that occurs depends on specific market and rail network conditions at specific locations. For example, conditions unique to Eastern Canada transportation markets result in relatively low levels of interswitching in those markets.

Thus, even if the NITL were able to make an "apples-to-apples" comparison (which it cannot and does not), and even if the NITL were correct that in Canada as a whole interswitching is relatively infrequent (which, for the reasons discussed above, does not appear to be correct), the NITL's conclusion would have no relevance in predicting the amount of mandated switching that could occur in the vastly different transportation markets of the United States.

B. Rail Traffic Flows and End Market Differences

A critical distinction between U.S. and Canadian rail transportation markets is that most U.S. rail traffic has a domestic orientation (83 percent) while most Canadian traffic involves exports (59 percent) (Exhibit V-6).

⁵² Calculation: 279,900 / (1.238 million carloads * 0.5).

Exhibit V-6: Canada versus U.S. Rail Traffic Flows: Domestic and Imports/Exports⁵³

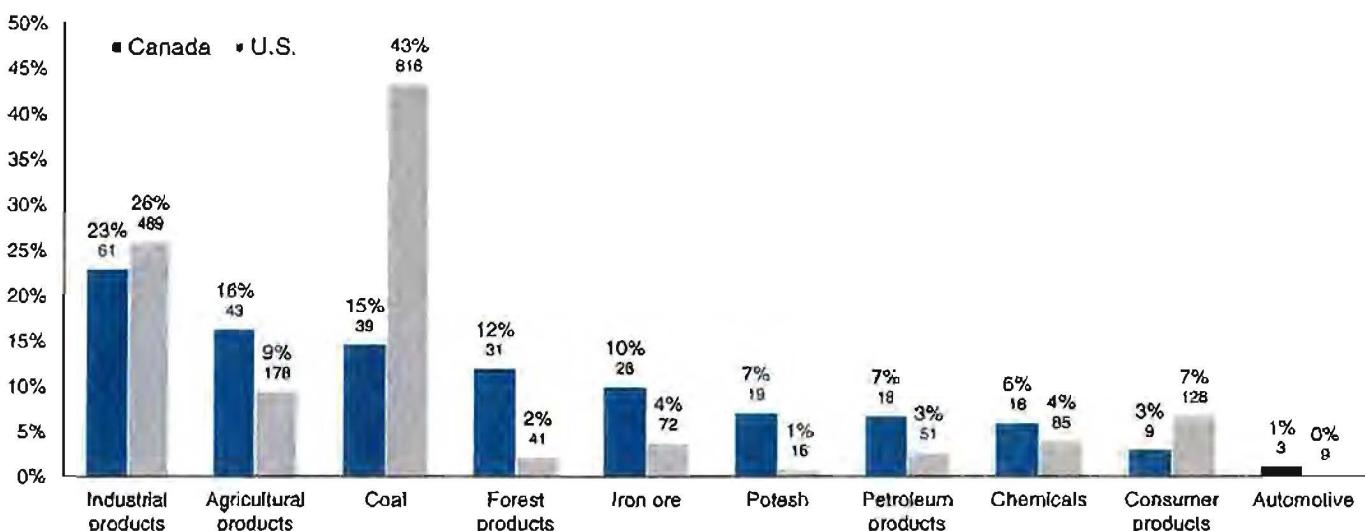
Percentage of short tons

| | Canada | United States |
|----------|--------|---------------|
| Domestic | 24.1% | 82.6% |
| Exports | 58.8% | 11.3% |
| Imports | 17.1% | 6.1% |

As shown in Exhibit V-7 below, the most important Canadian freight involves industrial products, natural resources, and agricultural commodities destined primarily for export (e.g., auto parts, coal, wheat, lumber, iron ore, and potash), while the most important U.S. freight, such as coal and industrial products, is destined for domestic U.S. markets.

Exhibit V-7: Traffic Mix for Canadian and U.S. Railroads⁵⁴

Percentage of total traffic and millions of short tons originated in 2011



This fundamental difference between the export orientation of Canadian rail traffic and the domestic orientation of U.S. rail traffic is important for two reasons. First, the export orientation of Canadian rail traffic results in a relatively simple and linear rail network that focuses on

⁵³ Table 404-0021, Statistics Canada; Transportation in Canada 2011, Transport Canada, Tables RA23, RA 24, and RA26; Oak Ridge National Laboratory, Freight Analysis Framework, Version 3; Oliver Wyman analysis.

⁵⁴ Source: 2011 Analysis of Class I Railroads, Association of American Railroads; Table 404-0021, Statistics Canada; Oliver Wyman analysis.

transporting freight to a small number of export locations (primarily ports on the West Coast and U.S. transfer locations in the Midwest). In contrast, U.S. railroads primarily serve domestic markets spread throughout the United States, resulting in rail operations with a high level of complexity to maintain efficient operations over a vast “spider web” of rail infrastructure. As explained above, the relative simplicity of the Canadian network and its essentially east-west orientation means that mandated switching is far less likely to produce service disruptions than would be the case for the complex U.S. rail system.

Second, we explain below that certain characteristics of Canadian export markets tend to discourage the use of interswitching. These factors are not present in U.S. freight markets that are focused on domestic traffic flows. Thus, even if the NITL had accurately portrayed the frequency of interswitching in Canada – which is not the case as discussed above – the Canadian experience would have no relevance to U.S. rail freight markets.

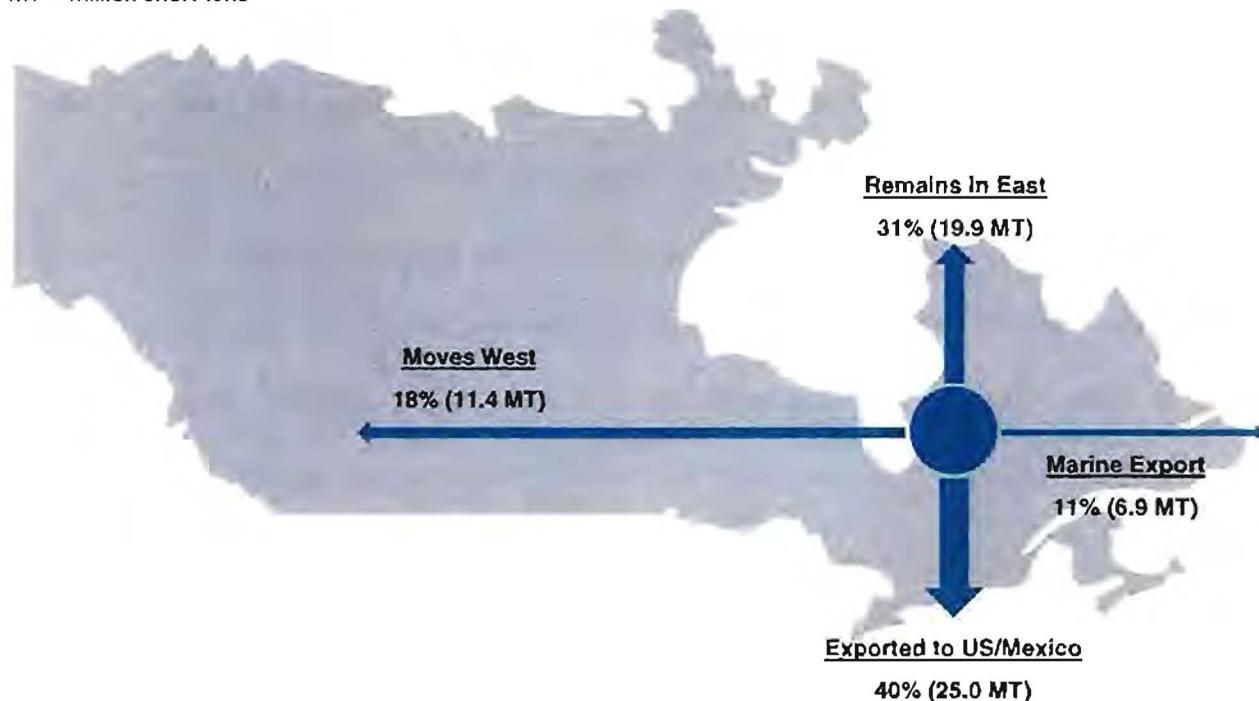
1. Canadian Eastern Traffic Flows

Unlike any region in the United States, eastern traffic flows in Canada are primarily focused on short-haul exports to the United States via Buffalo or Detroit/Chicago border crossings or within the region. As shown in Exhibit V-8, 40 percent of Canadian rail traffic from eastern origins is exported to the U.S. and Mexico. This traffic is handled only a short distance in Canada. As an example, the distances from Cambridge, Ontario – a key origin point for automotive traffic – to key U.S. gateway points are as little as 125 miles to Buffalo, 185 miles to Detroit, and 539 miles to Chicago.

For these cross-border moves, the Canadian portion of the movement is relatively short, and typically only takes a day or so before traffic is interchanged with a U.S. carrier. The U.S. portion of the movement generally will be much longer.

Exhibit V-8: Directional Flows for Traffic Originating In Eastern Canada³⁵

MT = million short tons



The short-haul nature of the Canadian portion of the export movement has important implications for interswitching. The long haul is in the United States, and therefore the majority of the through rate is driven by the amount charged for the U.S. portion of the movement. But shippers exporting to the United States are generally able to exercise competitive leverage over U.S. carriers, since the shipper may be able to use alternative U.S. carriers for the U.S. portion of the movement. Therefore, the long-haul portion of the movement is already subject to competitive pressure that constrains rates for that portion of the movement.

As to the Canadian portion of the movement, there is no reason to believe that the use of interswitching would have any impact on the Canadian portion of the rate, as the nature of the traffic moved to U.S. markets in the east and the short length of haul makes trucks particularly strong competitors for this traffic. For example, an analysis of 35 key commodities imported

³⁵ Note: Tonnage figures are in short tons. Source: Table 404-0021, Statistics Canada; Transportation in Canada 2011, Transport Canada, Table RA24; Oliver Wyman analysis.

from Canada to the U.S. (Exhibit V-9) through the major gateways of Buffalo and Detroit shows that motor carriers account for three times more traffic than rail. Shippers will not be particularly interested in interswitching to bring down rates on the Canadian portion of the movement, since the existence of truck (and pipeline) competition already constrains rates. Moreover, the costs and delays associated with interswitching would create a risk of driving yet more traffic from rail to truck. Based on the authors' experience, service reliability and speed of transit on these export movements are paramount in preventing shippers from switching to alternative modes; shippers generally are quick to invoke truck options when their expectations and requirements are not met.

Exhibit V-9: U.S. Imports from Canada by Transportation Mode⁵⁶

Percentage of total short tons, average of 35 commodities

| U.S. Gateway/Region | Motor Carrier | Rail | Pipeline |
|---------------------|---------------|-------|----------|
| Buffalo | 33.7% | 11.0% | 52.9% |
| Detroit/Sarnia | 46.8% | 28.4% | 20.0% |

2. Canadian Western Traffic Flows

Traffic flows in the West are also dominated by exports. Canada is a major exporter of many natural resources and commodities, including coal, iron ore, potash, non-metallic ores and concentrates, wheat, and sulfur, among others. This traffic is largely in bulk form, making it highly suitable for movement by rail; only 13.1 percent of waterborne Pacific region exports are containerized.⁵⁷ Much of this traffic is exported through two ports: Vancouver and Prince Rupert. As shown in Exhibit V-10 below, about 55 percent of Canadian rail traffic from western

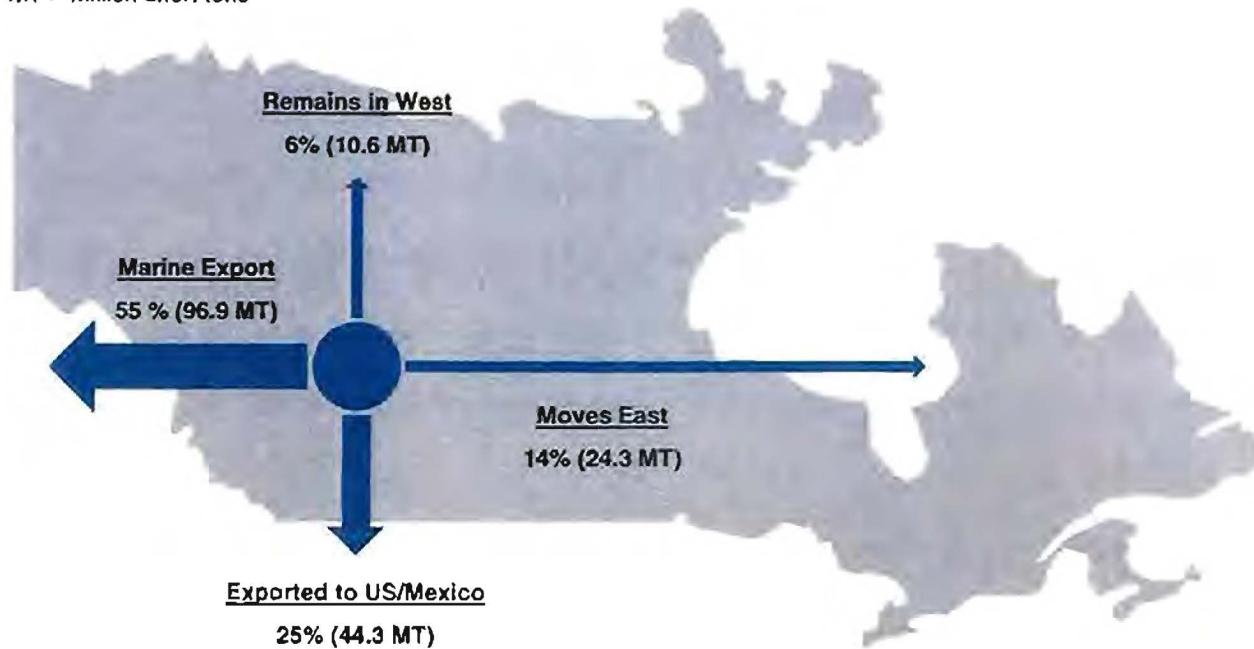
⁵⁶ Oak Ridge National Laboratory, Freight Analysis Framework, Version 3; Oliver Wyman analysis.

⁵⁷ Shipping in Canada 2011, Statistics Canada, Tables 15-1 and 15-2, pp. 60 and 67.

origins moves to West Coast ports for export and another 25 percent is exported to the U.S. and Mexico.

Exhibit V-10: Directional Flows for Traffic Originating In Western Canada⁵⁸

MT = million short tons



Two factors tend to discourage the use of interswitching with respect to Western Canada export traffic. First, Canada's rail traffic from the western regions is driven by maritime exports. The logistics of providing rail transportation for maritime exports are particularly demanding. The seamless coordination of the entire supply pipeline – inland terminal, rail, port terminal, and vessel – is necessary to ensure that the combined capacities of terminals, rail, and vessels are fully utilized at all times. Shippers will be unwilling to take the risk that interswitching would create delays that would undermine the efficient operation of this export-oriented supply chain. It is very expensive to leave ships waiting at a port terminal for railroads to arrive with freight to be

⁵⁸ Note: Tonnage figures are in short tons. Source: Table 404-0021, Statistics Canada; Transportation in Canada 2011, Tables RA 23 and RA24; Oliver Wyman analysis.

loaded for marine transportation. The high degree of sensitivity of Canadian export shippers to delays that could be caused by interswitching is unique to this marine export market.

Second, core export commodities are dominated by large shipper groups that have substantial leverage over railroads without the need to exercise interswitching options to obtain low rates. Examples of powerful shippers groups and the commodities they control are:

- Teck Resources Limited, a consolidated mining and smelting company, the largest producer of steelmaking coal in North America, and the second largest exporter of seaborne steelmaking coal in the world.⁵⁹ Teck is CP's single largest customer and alone accounts for over 30 percent of daily train starts on CP's western corridor (from rail station Golden westward).
- Canpotex Ltd., the world's leading exporter of potash, which is a joint venture of Saskatchewan potash producers.⁶⁰ As Canpotex explains, "Canpotex represents all three of Saskatchewan's existing producers, [and] we enjoy significant economies of scale on this side of the business."⁶¹
- The just-dismantled Canadian Wheat Board, which was a government-sanctioned marketing organization that represented western Canadian growers of wheat and barley.⁶² In addition to concentrating agricultural shipping demand, the Canadian Wheat Board had the benefit of a government-ordered annual "revenue cap" on rail transport of grain, which limited the total amount of revenue the railroads could earn from hauling grain in a given year.

These factors, which are found in combination in Western Canada, but not in the United States, work together to reduce shipper incentives to use interswitching for competitive purposes.

⁵⁹ Teck 2012 Annual Report.

⁶⁰ Canpotex website (<http://www.canpotex.com/who-we-are/our-mission>).

⁶¹ Canpotex website (<http://www.canpotex.com/what-we-do/logistics>).

⁶² Canadian Wheat Board website (<http://www.cwb.ca/about-us>).

This underscores the risk of underestimating potential U.S. switching if one relies on Canadian rates of interswitching to predict the use of mandatory switching in the United States, should the NITL proposal be adopted.

VERIFICATION

I, Phil C. Ireland, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

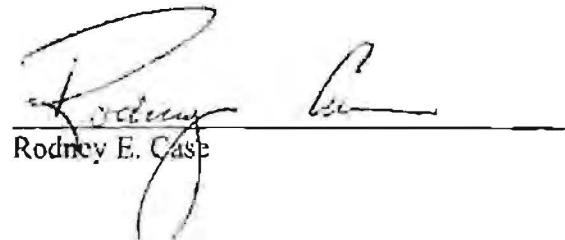
Executed on May 29, 2013.

Phil C. Ireland
Phil C. Ireland

VERIFICATION

I, Rodney E. Case, verify under penalty of perjury under the laws of the United States
that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 28, 2013.



Rodney E. Case

A handwritten signature in black ink, appearing to read "Rodney Case". Below the signature is a printed name, "Rodney E. Case", aligned with the signature's baseline.

BEFORE THE
SURFACE TRANSPORTATION BOARD

STB EX PARTE NO. 711

PETITION FOR RULEMAKING TO ADOPT REVISED
COMPETITIVE SWITCHING RULES

VERIFIED STATEMENT
OF

MARK FAGAN

MAY 30, 2013

I. INTRODUCTION

I am Mark Fagan. I am Adjunct Lecturer in Public Policy at Harvard Kennedy School, Harvard University and previously a Senior Fellow at the Center for Business and Government at Harvard Kennedy School. I am also a founding partner of Norbridge, Inc., a management consulting firm with distinctive expertise in transportation and logistics.

My research at Harvard University centers on the impact of regulation on markets. A recent focus has been the impact of open access regulation on public value creation.¹ In prior research, I wrote about the impact of deregulation in the railroad industry, including a paper published by *Transportation* examining the impact of regulatory differences on rail freight share between the United States and the European Union. I also recently published research results on the risk externality of hazardous materials transportation. My work extends beyond transport; I have examined the impact of electricity restructuring in the United States, which has been published in the *Electricity Journal* and cited in the *New York Times*.

I have worked with shippers and carriers as a management consultant for more than 30 years. As Vice President of Mercer Management Consulting (now operating as Oliver Wyman), I helped clients in a range of industries improve their supply chain efficiency and cost effectiveness. During my time at Mercer, I developed a distinctive expertise in sourcing strategy, helping clients negotiate lower total lifecycle costs with suppliers, including transportation providers. Since co-founding Norbridge, Inc., I have worked with Class I and shortline railroads in the United States and a major freight railroad in Australia to enhance their operational and commercial performance.

The purpose of this reply submission is to describe an appropriate framework for determining whether the National Industrial Traffic League (NITL) proposal for mandated switching creates public value and therefore is in the public interest. That framework involves determining the public benefits flowing from the proposal, defining the costs that the proposal would entail, and comparing public benefits to costs to assess whether the proposal creates public value. NITL does not appear to provide such a framework or, indeed, any public interest framework. In the absence of benefit-cost framework, the Surface Transportation Board (STB) lacks the basis for concluding that the NITL proposal could be in the public interest.

Moreover, my reply explains that the NITL submission appears to mistakenly assume that lower rates created by mandated switching would on their own create public value. However, in the absence of sustainable cost reductions resulting from competition (e.g. increased productivity or greater efficiency), improvements in service for the

¹ In this testimony I use the term “public value creation” to refer to an actual increase in economic value rather than a simple transfer of wealth between entities. Thus, to create public value competition must lead to sustained competition-driven efficiencies, cost reductions, service improvements, investments, innovations and/or expansion of rail traffic attracted from more expensive transportation modes, not simply reduced railroad margins.

customer, and/or expansion of rail traffic, the outcome of mandated access would be only a wealth transfer, not a creation of public value. NITL also fails to identify the costs associated with its proposal or to engage in a comparison of benefits and costs described above. Mandated access only creates public value if the costs associated with mandated switching are less than the benefits.

I have used the framework described here to investigate open access in Australia and the European Union. The results of my research into the impact of mandated access have led me to three core findings. First, the primary outcome of opening access is a wealth transfer from railroads to shippers, rather than public value creation. Second, the costs of coordination (a term used to refer to the full range of costs associated with access, from redundant terminal capacity to extra interchange expenses to longer transit times for shippers) are significant. Third, the promise of competition leading to efficiency, investment, innovation, new services and the like has not materialized. The bottom-line of my research is that the costs of coordination are greater than benefits gained once the wealth transfer is eliminated; thus, access has not resulted in net public value creation.

Applying these findings to the issue facing the STB in this proceeding, I offer the following observations:

- Access via the NITL mandatory switching proposal is intended to lead to rate reductions. However, NITL assumes that a rate reduction without anything more is a public benefit. Public benefits only emerge if the rate reductions are accompanied by sustained competition-driven efficiencies, cost reductions, service improvements, investments, innovations and/or expansion of rail traffic attracted from more expensive transportation modes. Otherwise the rate reductions are only a wealth transfer from the railroads to the shippers. I do not see evidence in the NITL filing that demonstrates that mandated access would lead to any competition-driven public benefits. The public does not benefit from a mere wealth transfer.
- Even if public benefits resulted from mandated access, net public value would be created only if the benefits outweighed all costs resulting from mandated access. On the surface it is difficult to see how such value creation could result from the NITL proposal, as mandatory switching results in additional interchanges, which in turn increase costs and reduce the timeliness of shipments for shippers that obtain access and other shippers whose traffic could be affected by congestion. The proposed access may lead to increased investment but in a most unproductive way – providing capacity (e.g. terminals, equipment, crews) just in case a shipper opts to use the non-incumbent. The filings by NITL and its supporters do not show that the proposal would be value creating; rather, it appears likely that mandated switching would produce only a wealth transfer from railroads to shippers that does not constitute a public benefit.

- Finally, my research indicates that the costs of coordinating the access may well be sizable. The NITL proposal does not address the costs of coordination. The experience in Australia and Europe is that these costs can be significant. This finding suggests that costs could swamp any non-wealth transfer gains, even if there were evidence of such gains.

II. Framework for Assessing whether Access Proposals Are in the Public Interest

A decision to mandate access must be supported by the creation of net public value. In describing the role of regulators, Viscusi, Vernon and Harrington state: "our task is to maximize the net benefits of these regulations to society. Such a concern requires that we assess both the benefits and costs of these regulatory policies and attempt to maximize their difference."² Therefore the question for the STB in this case is whether the NITL proposal for mandatory switching would yield public value that exceeds the costs imposed by access.

Public value could be created if competition resulting from access drives greater investment and spurs further innovation, leading to sustained productivity gains and improved service, and/or the rate reductions shift more freight to the railroads, replacing a more expensive mode. While competition is expected to reduce rates, in the absence of any sustained cost reductions and/or modal shifts, the lower rates would only be a wealth transfer from railroads to shippers, which does not create public value.

There are also costs associated with access. The direct costs are those for extra handling as the incumbent interchanges the traffic to the access seeker. The access seeker as well as shippers may also incur costs as transit times lengthen and become more variable. There are also a host of indirect costs such as both carriers maintaining resources (cars, crews, terminal space) just in case they are given the business and costs associated with congestion and inefficient use of existing capacity.

While NITL has focused on the rate reduction aspect of access, the costs of coordination can be even more important and, regrettably, have received minimal attention in NITL's filing. However, coordination costs cannot be ignored because they could dwarf any public benefits of rate reductions. The theory underlying my concern is that offered by Oliver Williamson in his 1968 article on the economics of mergers.³ Williamson focused on the need to consider impacts on both price and on efficiencies in determining the public value of mergers. He recognized that addressing price impacts only could lead to incorrect decisions, as the efficiency gains from mergers were also part of the welfare calculus. Thus, he was concerned with the tradeoff between potentially higher prices resulting from mergers and the efficiency gains that mergers might generate. His partial equilibrium modeling led him to conclude that efficiency issues

² *Economics of Regulation and Antitrust*, Viscusi, Vernon and Harrington, Second Edition, MIT Press, 1997, p. 10.

³ "Economies as an Antitrust Defense: The Welfare Tradeoffs," Oliver Williamson, *The American Economic Review*, Vol. 58, No. 1 (1968).

might well dominate price impacts: "a merger which yields non-trivial real economics must produce substantial market power and result in relatively large price increase for the net allocative effects to be negative."⁴

Williamson's logic can also be applied to evaluate the effect of government intervention to compel access, with any potential value created from competition offset by possible increases in costs. Applying the Williamson logic in the present case leads to the following: any value creation that might result from increased competition could be offset with relatively modest increases in coordination costs. Figure 1 illustrates the results of applying the Williamson approach to open access. "P1" represents the price before the introduction of access. "P2" represents the price after the introduction of mandated access and reflects the costs of coordination associated with the introduction of mandated access. "Q1" is the amount of rail service purchased prior to access and "Q2" is the amount of rail service used after access is implemented. "MC1" is the marginal cost of the rail service prior to access and "MC2" is the marginal cost after.

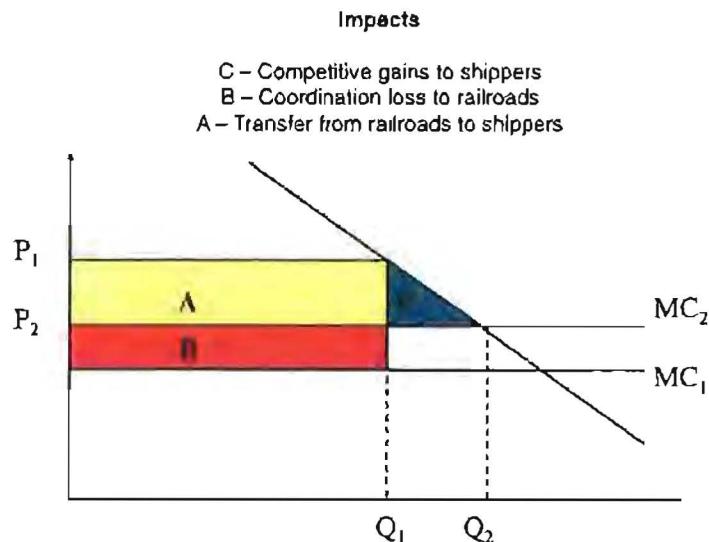
The introduction of access results in the following changes. First, prices fall from P1 to P2. Next, the decline in price increases the demand of rail service from Q1 to Q2, which creates a public benefit as rail at the lower cost is assumed to be a better alternative than was being used before access. This gain is shown in Figure 1 as the triangle C. There are, however, costs associated with access (e.g. increased switching, unproductive standby assets, congestion) that raise the railroads marginal cost, from MC1 to MC2. The resulting cost impact is shown in rectangle B. (If these costs exceed the gains from the price reduction – triangle C- no public value is created.) Finally, the profits that currently flow to the railroads (the difference between the MC2 and P1) are shifted from the railroads to the shippers. This is illustrated in rectangle A.

Jose Gomez-Ibanez applied this methodology to freight rail mandated access.⁵ In one example, he assumed that access reduces tariffs by 20 percent and the price elasticity of demand is -1. In that case, the resulting value created from lower rail rates and increased volumes (triangle C) would be offset by an increase in marginal costs of as little as 2 percent (rectangle B). There would be a large increase in shipper surpluses (wealth) at the expense of railroad surpluses (wealth) as shown in rectangle A. This would be a wealth transfer from railroad to shipper without creating public value, unless the rate reductions were accompanied by a sustained reduction in railroad cost owing to competition-driven innovation, investment, productivity, etc. The bottom line is that even a modest increase in coordination costs may offset any value created by open access.

⁴ "Economies as an Antitrust Defense: The Welfare Tradeoffs," Oliver Williamson, *The American Economic Review*, Vol. 58, No. 1 (1968), P. 23.

⁵ "The Simple Analytics of Open Access with Illustrations from Railroads," Jose Gomez-Ibanez, Paper to be given at the annual meeting of the Australian Competition and Consumer Commission, Surfers' Paradise, Queensland, July 29, 2010.

Figure 1: Williamson Model Applied to NITL Access Proposal



Source: "The simple Analytics of Open Access with Illustrations from Railroads," Jose Gomez-Ibanez, 2010.

III. NITL Does Not Apply a Public Interest Framework

The correct evaluation of the NITL proposal requires a public interest framework such as the one I offer or, in fact, any public interest framework. In this regard, three aspects of NITL's submission are particularly noteworthy.

A. Rate Reductions Are Not in Themselves Public Benefits

NITL and some supporters of the NITL proposal have argued in this proceeding that rates will decline for shippers who will be able to access multiple railroads as a result of mandatory switching. However, NITL ignores that for mandated access to result in value creation, the lower rates produced by mandated access must be accompanied by sustained productivity gains and cost reductions which in turn lead to growing rail share. In other words, rate reductions in themselves may benefit shipper recipients of those reductions, but they do not on their own create public value. A transfer of funds, without more, from a railroad's pocketbook to a shipper's pocketbook yields no public value. NITL has not shown public value flowing from rate reductions.

B. No Serious Consideration of Costs

NITL and its supporters also depart from the public interest framework in that they make no serious effort to identify, let alone quantify, costs that would be incurred as a result of mandated access. While acknowledging that switching entails inefficiencies, NITL stops short of identifying the costs those inefficiencies would entail.

C. No Netting of Public Benefits versus Costs

Since NITL has not evaluated public (as opposed to private) benefits and has failed to investigate and quantify the costs imposed by mandated access, the NITL is in no position to make any determination of net public value. Thus, there is no showing by NITL and its supporters that the benefits of mandated access exceed the costs, and thus no basis for finding that NITL's mandatory switching proposal is in the public interest.

IV. Application of the Framework in my Research

I believe that the public interest framework discussed herein can and should be applied to the issues before the Board in this matter for two reasons. First, the framework is derived from clear and strong economic thinking, e.g. Williamson's work. Second, I have done research using the framework that indicates to me that the framework can be applied in the real world.

Deregulation of transportation in the United States beginning in the late 1970s gave rise to an optimistic view that in the absence of regulation, there was sufficient competition across modes and sources to lead to market-based outcomes. The experience of the United States railroads in the decades following the Staggers Act seems to confirm this view. Costs declined as productivity soared.⁶ Moreover, the value creation was shared with shippers as rates declined consistently for more than 20 years.⁷ The net result was an initial stabilization of rail share followed by a modest increase in rail's percentage of freight share handled.⁸

The United States experience stood in sharp contrast to that in Europe, where rail share declined consistently during the same period.⁹ Europe continued to heavily regulate the railroads and move in the direction of creating competition via open access. In 2008, I undertook a research project to understand the impact of policy differences between the United States and Europe on rail share. The results of that work reveal that after controlling for external differences (geography, commodities, passenger priority, etc.), a significantly higher rail share results in the United States.¹⁰ Based on this research I hypothesized that the deregulatory policy in the United States, rather than the European heavier-handed regulation and open access approaches, has led to the positive rail share in the United States.

As one test of this hypothesis, I subsequently conducted a research project to understand if mandated open access in Australia created public value. Australia was an attractive test-bed because the country had opened its rail infrastructure competition for

⁶ "Railroad Facts," AAR (2011)

⁷ "Railroad Facts," AAR (2011)

⁸ A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals that Might Enhance Competition, Christensen Associates, November 2009, P. ES-7.

⁹ "Nature or Nurture: Why do Railroads Carry a Greater Freight Share in the United States than in Europe?" Vassallo and Fagan, *Transportation*, (2007) 34:177-193.

¹⁰ "Nature or Nurture: Why do Railroads Carry a Greater Freight Share in the United States than in Europe?" Vassallo and Fagan, *Transportation*, (2007) 34:177-193.

more than a decade at the time of my research. The specific objective of the research was to determine whether Australia's open access regulation led to sustained public value creation.

My research of the Australia mandated access scenario led me to conclude that mandated access in Australia has not led to public value creation. Access-based competition does not appear to have increased rail share, led to sustained productivity gains, or caused material innovation or private investment. In the absence of these benefits, the rate reductions which have resulted from access are likely just a shift in profits and wealth from railroads to shippers. Moreover, there are real and potentially sizable costs of coordination associated with access. Operational costs stem from more hand-offs and the need to integrate separate rail operations. The administrative and regulatory costs associated with mandated access in Australia have also been significant.

I refer to my research into access regimes in Europe and Australia not to argue that the STB should be guided by experience overseas but to illustrate the type of framework that should be employed to make a public interest determination in this matter. NITL, however, does not appear to have provided or applied any public interest framework. Without an analysis based on a valid benefit-cost framework, the STB lacks the basis for concluding that the NITL proposal could be in the public interest.

V. Conclusion: Implications for the STB

My review of the mandatory switching regime proposed by NITL in light of the framework proposed here leads to three key insights for the Board as it considers that proposal.

- Rates are expected to come down, but rate reductions unaccompanied by sustained competition-driven efficiencies, cost reductions, service improvements, investments, innovations and/or expansion of rail traffic attracted from more expensive transportation modes will represent dominantly a wealth transfer rather than true value creation. NITL's lack of a public value framework to evaluate public value creation is extremely problematic.
- The proposed mandatory switching will likely increase rather than decrease costs, intensifying the concern about net benefits.
- Costs of coordination can be sizable; careful assessment of potential costs is required.

VERIFICATION

I, Mark Fagan, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 28, 2013.



Mark Fagan