Online Appendices: Not For Publication

A Fieldwork and Ethnographic Observations

To cross-validate the empirical findings presented in this study, I conducted one month of fieldwork involving extensive interviews and observations across various segments of the railroad industry. This included visits with downstream customers such as steel manufacturers (EVRAZ North America, Inc.) and the UPS consolidation center in Chicago, operational observations at the BNSF classification yard and intermodal terminal, interactions with Lake State Railway Company (LSRC), a regional railroad actively engaged in interchange operations, and observations at a technology center specializing in route optimization and network management in Pueblo, Colorado. The qualitative insights consistently reinforced the quantitative results, highlighting the critical role of eliminating interchanges and optimizing routing and resource allocation as primary sources of merger-related efficiencies. Below, I document key insights from these interactions.

Figure A.1: Field Observation: Railroad Operations, Track Maintenance, and R&D



Notes: The author participating in a training session at the Transportation Technology Center in Pueblo, Colorado, focused on railroad operations, track maintenance procedures, and research and development practices.

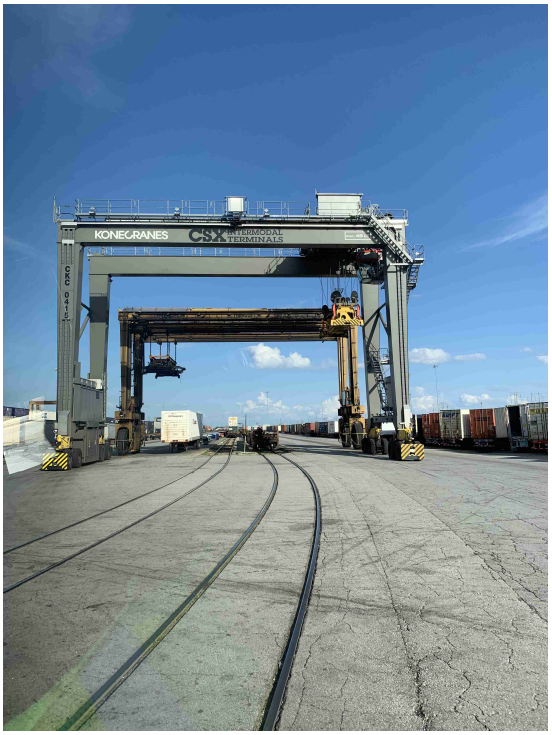
Interview with Business Development Manager

The interview illuminated two critical aspects of railroad economics: pricing decisions and interchange contracts.

First, the pricing department receives operational cost estimates for each origin–destination market from the costing department in the form of Excel files. Prices are then strategically set to maximize profitability by applying an optimal margin constrained by market tolerance. Notably, when making pricing decisions, the pricing department does not take into account how changes in demand might subsequently affect costs and operational decisions. Instead, they rely solely on the cost figures provided by the costing department.

Second, regarding interchange contract negotiations, it usually favors the originating railroad, but specific circumstances can shift bargaining power. An example shared during the interview involved Canadian National requesting a shipment quote from a connecting railroad for transportation from Buffalo to New York. However, the connecting railroad's marketing representative insisted on quoting only from Chicago to New York to optimize their own revenue. The scenario emphasized that operational priorities and perceptions of value differ significantly across railroads, succinctly summarized by the manager's remark: "The hot stuff of one person is not the hot stuff of the other."

Figure A.2: Field Observations: Intermodal Operations and Consolidation Facilities



(a) Intermodal Terminal Handling Rail-to-Truck Transfers



(b) Customer Consolidation Center Operations

Interview with Train & Terminal Operations Manager

Interchange activities were highlighted as inherently costly due to frequent incentive misalignments and coordination problems. As a short-line railroad, LSRC regularly exchanges railcars with Class I railroads. A recurring operational inefficiency arises when partner companies, particularly during peak seasons when locomotives are in high demand, leave railcars just outside the designated interchange points, removing their own locomotives prematurely to ensure timely availability elsewhere. Consequently, LSRC must allocate their locomotives to reposition these railcars, incurring additional operational burdens and inefficiencies.

Figure A.3: Field Observations: Classification Yard Operations



Notes: Author at the classification yard observing and learning procedures for railcar classification, interchange operations, and yard management.

A detailed example from industry literature reinforces the challenges of inter-railroad coordination. The article described Train 9-698-21, an express freight train primarily servicing UPS and J.B. Hunt, intended to meet stringent delivery timelines in Los Angeles. Operational difficulties arose due to misaligned incentives under a pre-merger haulage agreement between Santa Fe and Burlington Northern (BN). Although Santa Fe sold the service, BN operated the trains east of Avard without including these trains in its internal performance metrics, resulting in persistent unreliability. Eventually, customers such as J.B. Hunt were advised by Santa Fe to consider alternative arrangements until the railroads could streamline coordination efforts post-merger.

Additional qualitative support emerged from discussions with the Terminal Superintendent at Conrail, highlighting interchange-related inefficiencies stemming from divergent incentives and priorities. Daily disputes over timing, delays, and communications were frequent, exacerbated by fluctuating shipment volumes. These challenges underscored the complexities and additional operational costs inherently associated with inter-railroad coordination.