THE RAILROAD CAPACITY CRISIS:
After Cutting to the Bone and More, Trains Are Back

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During the Era of Railroad building (primarily the last half of the 19th century), it was far more profitable to lay track than to operate railroads due to the subsidies from various levels of government and the competition between cities to be located on as many lines as possible, and the overcharging of the railroads by the construction companies. Railroads compensated for this glut by cross-subsidizing the unprofitable branch lines with revenues from the main lines. But as competition from other modes took hold, this was increasingly difficult to do. Therefore, by the early 20th century, railroads began to slowly shed some of the lightly trafficked lines. Regulatory changes in the 1980s made abandonment easier, and wholesale discarding of lines, including former mainlines, became common. But by the turn of the century, foreign imports put a greater demand on rail transportation, and lack of capacity caused many of the remaining lines to become very congested, in turn, causing extensive delays.

Early Federal Railroad Regulation

Almost as soon as railroad construction became extensive in the mid-to late 19th century, people realized that trains were vastly superior to previous modes of transportation, which consisted primarily of wagon roads and water transportation via rivers and canals. Railroads also possessed more than just the ability to move people and things. In what he described as the "metropolitan corridor," John Stilgoe has said that the

railroad allowed rural Americans to glimpse at a wider world when the train came to town. Congregating at the depot as they often did in isolated small towns at train time, people could get the latest newspapers, see the passengers in the newest urban fashions on the passengers on board, and feel a connectedness similar to that created by today's television, radio, and internet.[1]

In the late 1800s, national and state governments subsidized railroad construction by means of land grants, loans, mail contracts, and stock and bond subscription. Construction was often over-subsidized, making it more profitable to build than to operate railroads. In many cases, the supply of track greatly exceeded the demand for railroad services.[2] As railroads grew in importance, towns and cities, especially west of the Mississippi, vied with each other to be included on various railroad routes. Stories are common of towns that failed to obtain a railroad and no longer exist. Towns not on rail lines found that their only hope of survival was to convince a railroad to build a spur from the nearest line into town. Many towns went bankrupt by subsidizing the very thing that was supposed to ensure their prosperity.[3] The railroads also eventually paid for this overbuilding, as these spurs became unprofitable. Therefore, abandoning railroad lines became an issue early in history.

Due to abusive railroad activities, centering on activities that discriminated against smaller shippers, frequently farmers, the states made several attempts to regulate the railroads, which failed because a large amount of railroad commerce was interstate in nature. Federal regulation of railroads began with the Act to Regulate Commerce of 1887.[4] None of the six sections in the original Act to Regulate Commerce dealt with abandonment of rail lines; they addressed only rates and various types of discrimination. The Interstate Commerce Commission (ICC), set up by the 1887 Act and strengthened by several acts between 1903 and 1912, oversaw the railroads, but still did not regulate abandonment.

Not until the Transportation Act of 1920, written primarily to return the railroads to private ownership after their nationalization during the First World War, was abandonment addressed in federal regulation. Although the Transportation Act of 1920 began a period of greater regulation, the tone became more positive toward the railroads, zas much of the regulation was intended to help the now troubled industry rather than to control its abuses.[5] The Act directed the ICC to prepare a consolidation plan to combine the railroads into a limited number of regional systems. Included in this provision was the requirement for the Commission's permission to build new lines or to abandon old ones. In fact, as part of the regulation of adequate service, the ICC could require a railroad to extend an existing line.[6]

The Regulation of Abandonment (1920-1980)

Economic regulation of transportation has generally been considered to cover four areas: entry, exit, rates, and services. The regulation of rates has been the area of greatest emphasis throughout the history of domestic transportation regulation. The concern with the other three areas has varied according to transportation mode. Regulation of entry has been important for motor carriers because low financial requirements make it relatively easy for competitors to enter that industry. Regulation of entry for railroads has not been as important because there is a large financial burden involved in building new rail lines,

including the purchase of the right-of-way.

On the other hand, regulation of exit (abandonment) is more important for rail than for a motor carrier, due to the same financial constraint or lack thereof. If a motor carrier abandons a route or even a whole territory, there is little difficulty in getting a replacement. In fact, in most cases, there is already at least one other carrier serving the route or territory. If a railroad abandons a route, however, the right-of-way, as well as the vehicles, vanishes. The track may be scrapped and the ownership of the land may revert to the adjacent landowners. The prospect of future service on the route in question is unlikely.

Guided by financial considerations, the ICC generally approved most abandonment requests during the 1920s, especially if alternative transportation, either rail or another mode, was available. It took this generally liberal policy to alleviate the problem of overcapacity.[7] For the next twenty years, no legislation affected the regulation of abandonment. Even the Transportation Act of 1940 did not consider abandonment directly. It did recognize the futility of consolidating the railroads into regional systems, which the Commission had been resisting, and eliminated the requirement that any railroad combinations conform to a preconceived plan.[8] Thus the ICC was no longer required to order new construction or abandonment as part of any planned regional consolidation.

Regulators continued to ignore abandonment during the 1950s and 1960s. This is not to say that abandonment was not regulated. The procedure was an arduous one for the railroads that included public hearings at which shippers and passengers on the line in question could participate. By the 1960s, the average length of time from filing date to final decision was 410 days. Due to the lengthy and expensive process, railroads tended to apply for abandonment only in cases in which they were confident of winning approval. The high approval rate for abandonment applications, therefore, is misleading. For example, between 1961 and 1970, 90 percent of abandonment applications were approved, but this figure does not include those cases in which the railroads would have liked to abandon a service or line, but did not file applications.[9] In 1972, the ICC tried to speed up and simplify the abandonment process by adopting the "34 car rule," which stated that an abandonment application would most likely be granted if less than an average of 34 cars per mile was carried annually over the line in question. The Supreme Court upheld the ruling in 1973.[10]

While the regulation of mergers is a separate issue from the regulation of abandonment, one way to save money in a merger is to abandon redundant track. From 1955 to 1968, the ICC approved thirty-three mergers out of thirty-eight applications. Some of the major mergers that were approved between 1960 and 1970 included those that resulted in the Chessie System, Penn Central, Burlington Northern, and the expanded Norfolk and Western.[11] Many of the mergers failed to realize the predicted cost savings. While the Penn Central is the most famous case, declaring bankruptcy a mere two years after the merger was consummated, the Erie-Lackawanna lost more from its combined operations than the total loss of the two separate lines before the consolidation.[12] But, in these cases there was not the wholesale abandonment of track that might have produced greater cost savings. On February 1, 1978, the Rail Services Planning Office of the ICC issued a report on mergers that, among other things, recommended end-to-end mergers, rather than the mergers of parallel railroads. Undoubtedly, the collapse of Penn Central

was responsible in large part for this recommendation. Other contributions include: the lack of expected savings in parallel mergers, due in part to the failure to achieve major abandonment, easier management integration between railroads that had exchanged traffic over the years rather than competing for it, and the risk of total loss of service in a region from a failed parallel merger also had considerable roles.[13]

By the mid-1970s, the railroads, especially those in the Northeast, were in dire shape. There were many reasons for this state of affairs, including overbuilding and excess track, but eased abandonment rules were rarely among the proposed solutions, which often focused more on loan guarantees and reduced regulation, especially of rates.

The major piece of transportation legislation of the mid-1970s was the Railroad Revitalization and Regulatory Reform Act (4R Act) of 1976. It required time limits for the ICC to reach its final conclusions in rail abandonment cases. It also provided an opportunity for interested parties to offer financial assistance to keep a rail line operating. The ICC, in carrying out this order, required each railroad to issue a color-coded map showing how likely each of its lines was to be abandoned. The ICC also established time limits for each stage of the abandonment process.[14] Then, early in 1979, the ICC instituted a proceeding that found that opportunity cost was an appropriate factor to use in determining whether the continued operation of a line represented a financial burden on the railroad in question.[15]

The Staggers Rail Act Provisions on Abandonment

The Staggers Act of 1980 did not alter the standards for approving rail abandonment; however, it did set new standards for the procedure by accelerating the proceedings. If no one protested, abandonment applications were automatically approved seventy-five days after the application was made. The Commission was given the right to refuse an investigation of a proposed abandonment, even in the event of a protest. In these cases, abandonment would take effect 120 days after application was made. Finally, for those applications being protested and investigated, final decisions were due in 225 days.[16]

The Act also required railroads to sell lines approved for abandonment to responsible persons who offered to buy or subsidize the lines in question. If the parties involved could not agree on the terms, the ICC could establish terms or conditions. The Commission determined that for an abandoned rail line the fair market value was the net liquidation value, taking into account net land valuation and net improvements.[17]

On November 12, 1980, a short time after the passage of the Staggers Act, the ICC adopted a procedure for determining opportunity costs in rail abandonment cases.[18] The Commission issued final rules governing the abandonment of rail freight lines on September 10, 1981. The only difference between these and the rules included in the Staggers Act itself was that final decisions on protested abandonments had to be made within 165 days, rather than the 225 days allowed in the Act.[19]

The Northeast Rail Service Act of 1981

On August 13, 1981, Congress passed the Northeast Rail Service Act (NERSA). It was primarily aimed at Conrail, the government corporation created from the Penn Central and other bankrupt railroads. The Act warned Conrail that it must convince the federal

government by October 1, 1983 that it could become and stay profitable, or the secretary of Transportation would be empowered to sell it off piecemeal. One of the most important provisions of this Act was that Conrail was given great leeway to abandon rail lines, and it took advantage of the opportunity. The ICC, for its part, granted abandonment applications unless an offer to purchase or subsidize was filed within ninety days of the abandonment application date.[20] This act and the ICC implementation were probably the most important causes of the wholesale abandonment of lines in the Northeast quadrant of the country. The rules, of course, were applicable everywhere in the United States, whereas the excess of rail lines can be traced to the over-zealous and profitable building during the 1800s. Much of today's congestion and shortage of capacity can be traced to these new rules. Actually, a lack of vision on the part of the industry had occurred earlier. For example, in the 1970s serious damage by Hurricane Agnes, the loss of large amounts of steel and coal traffic, a bridge fire that limited its access to New England, and absorption of much of it into Conrail, destroyed the Erie Lackawanna railroad. Folded into Conrail, much of Erie-Lackawanna's double-tracked mainline from Youngstown to Chicago was considered redundant and subsequently abandoned, as a result. When heavy traffic returned to the rails in the 1990s, the once-great New York-Chicago speedway on which EL had piggybacked time-sensitive UPS truck trailers on flatcars no longer existed.[21]

Subsequent Abandonment Rules Changes

Through the 1980s, the ICC issued rules that, for the most part, sped up the abandonment process under certain circumstances, e.g. for lines that had been out of service for at least two years, or in cases in which the right-of-way would become a recreational trail.[22] The recreational trail option reflected Congress' concern in 1983 about the dangers of permanently losing rail corridors. It amended section 8 (d) of the National Trails System Act, which allowed for "rail-banking," meaning a railroad could shut down a rail corridor and pull up the tracks, leaving bridges and other infrastructure to allow a responsible party to develop a hiking, riding, or bicycling trail on the right-of-way. If the railroad later needed the corridor, it could reclaim it.[23] Other decisions had the effect of slowing abandonment. For example, shippers and communities were allowed to make financial assistance offers if the ICC had issued an exemption from formal regulatory approval to abandon.[24]

In 1991, the ICC faced another issue concerning abandonment. Railroads were attempting to sever lightly-used branch lines by abandoning part of them in order to make the remaining part of the line untenable, and therefore get approval for abandoning it in turn. In October of that year, the Commission stated that from then on the primary focus would be on that issue in abandonment cases. These cases were decided on the basis of whether abandonment of one segment made the eventual abandonment of the whole line a forgone conclusion. If this were the case, then the commission asked for further evidence concerning these lines in an amended application.[25]

At the end of 1995, the Interstate Commerce Commission ceased to exist and was replaced by the Surface Transportation Board (STB). Within its first year, the STB issued new rules instituting a uniform processing schedule for abandonment applications. These

rules, which took effect January 23, 1997, put a time limit of 110 days for the Board to decide on an application, and also set a similar time limit for Offers of Assistance (OFA) to keep the line in question in operation.[26]

Since the late 1990s there have been cases in which short lines and/or shippers on line offered to buy or provide assistance to keep the line in service, but the railroad with ownership preferred to sell rails to a salvage company for scrap, or to convert right of way to a recreational trail. In these cases, the owning railroad had another route between the end points and wanted to ensure that the line intended for abandonment would not be used by a competitor. In at least one case, the STB revoked the sale.[27]

Abandonment of small branch lines, no matter how much it may hurt the few shippers located on them, was not; however, what has caused the near crisis of some rail operations being occasionally reduced to the point of standstill. Certainly the wholesale elimination of former main lines has been a culprit in causing congestion that has threatened to delay many deliveries to the extent that their value would be greatly reduced. Because of the heightened congestion during the holiday period of 2006, there was serious talk of rebuilding some of these lines, especially those coming out of the Los Angeles/Long Beach area.

The Capacity Crisis: Trains Are Back

In the beginning years of the 21st century, the railroad and business press increasingly used the word "crisis" to describe railroad capacity issues. From 1980, the year of Staggers deregulation, through 2004, US rail traffic volume rose by 81 percent.[28] Many railroad executives, however, still had what Richard Saunders called "a true depression mentality–do not spend money because you never know when you are going to need it."[29] Because the railroads had excess capacity in the 1970s, they engaged in freewheeling abandonments and spin-offs of marginal track. They converted double track lines to single track and even ripped up one track of an engineering marvel: the former Pennsylvania Railroad's four-track mainline around Horseshoe Curve in Pennsylvania. Such actions seemed rational; manufacturers moved offshore, trucks increasingly took the valuable finished goods traffic, and, except for transporting automobiles, railroads seemed doomed to joining barges in the drudgery of being merely conveyors of low-value commodities like grain, oil, stone, and coal.

Apparently, what no one anticipated in the rationalization efforts of the 1970s and 1980s was that all of those goods made in Taiwan, China, Mexico, and Malaysia had to get to consumers in the United States.[30] Giant ships piled high with shipping containers brought growing amounts of products from overseas manufacturers. Trucks, with their own capacity problems caused by a driver shortage and crowded urban highways, were in no position to handle all of the traffic.[31] In addition, to avoid a long, slow, expensive trip through the Panama Canal (which could not handle the largest container ships), shippers between Asia and Europe increasingly used "land bridges," which meant unloading containers at US ports, sending them across the country by rail, and reloading them on another container ship for the continued ocean voyage. With abandonments and the transportation demands of offshore products, the beginning of the new century railroads moved toward a perfect storm of capacity problems. While the size of the railroad network in the United States declined by 19 percent since 1990, revenue ton-miles went up by 60

percent.[32] Capacity problems threaten even the land bridge concept. The West Coast gateway ports of Los Angeles and Long Beach handle more than a third of US container traffic, suffering from congestion problems in 2004[33] and expecting saturation by the end of the decade.[34]

In addition, the Union Pacific Railroad (UP) suffered serious operating problems in 1995 when it absorbed the Chicago and Northwestern, a venerable Midwestern carrier. Its problems multiplied when it merged in 1996 with the giant Southern Pacific system, which included the former Denver & Rio Grande Western. This resulted in too many trains, too few crews, and not enough tracks causing the railroad to have an operating meltdown. While many of UP's difficulties stemmed from bad decisions regarding operations, the railroad apparently also fell victim to its aggressive emphasis on cost-cutting.[35]

An example of this shortsightedness was the case of CSX, in which the company did not appreciate the coming revolution in intermodal container traffic. CSX had absorbed the Baltimore & Ohio (B&O) and abandoned B&O tracks eastward out of St. Louis, destroying the shortest rail route between that city and the Atlantic Ocean. This was done despite the previous B&O management's investment in the line in the 1960s in anticipation of container and automobile carrier traffic.

Burlington Northern (BN) made a similar mistake. When the BN completed its merger in 1970, the new company had the routes of its three predecessors between Spokane, Washington, and the Pacific coast: the Great Northern's Cascade Tunnel mainline, the ex-Northern Pacific over Stampede Pass and the former Spokane, Portland and Seattle's (SP&S) well engineered tracks. BN later gained a fourth route by acquiring the Snoqualmie Pass line, abandoned by the Milwaukee Railroad in 1980. BN later decided it had too much capacity. It closed Stampede Pass in 1983, leasing part of the track to a short line operator. After discontinuing service on part of the SP&S line 1987, BN ripped up a portion of it, even though veteran dispatchers claimed it was better than the parallel track BN kept. In addition, between 1987 and 1990 BN tore up its old Milwaukee Road Snoqualmie Pass tracks.

After the track was torn up, traffic began to grow. Because it took at least thirty minutes to clear diesel fumes for each train going through the Cascade Tunnel, increasing numbers of trains became bottlenecked on the old Great Northern route, while the only other remaining BN tracks required an out-of-the-way roundabout route.[36] Finally, during 1996 BN had to spend millions of dollars to buy back the short line spin-off and restore Stampede Pass to operation.[37]

In 2000, there was some talk of reclaiming the 321-mile Cowboy Line across Nebraska to allow more rail access to the coal-rich Power River Basin. The line, formerly owned by Chicago & Northwestern and abandoned in the 1980s, would have allowed competition against the Burlington Northern Santa Fe and Union Pacific railroads both of which were already serving the basin.[38]

Upon closing the former Denver & Rio Grande Western mainline over Colorado's Tennessee Pass in 1997, Union Pacific exercised prudence by leaving the tracks in place. Sensitive to the debacle caused by the company's 1996-1997 operating meltdown, Chairman Richard K. Davidson expressed concern about UP having enough capacity on parallel routes.[39] However, the line, which passes through the Royal Gorge and other

stunning scenery through central Colorado, has a steep eastbound grade and is excessively expensive to operate.[40] Meanwhile, Union Pacific wanted to abandon track at the Tennessee Pass line's eastern terminus in Pueblo, Colorado. Those tracks continued east of Pueblo on what was formerly the Missouri Pacific mainline to Kansas City. While a short line company bought sections in Kansas, there were no takers for track from Pueblo to Towner, Colorado, on the Kansas line.[41] Concerned about permanently losing the rail corridor, the State of Colorado bought the track from Union Pacific for $10.4 million.[42] Later, a short line operator began serving grain elevators on the line.[43]

In 2007, railroads were experiencing a bit of a respite from capacity problems due to the apparent beginnings of an economic downturn. However, the industry has a serious long-term capacity problem.[44] Union Pacific hoped to accelerate improvements to one of its major corridors across the Southwestern portion of the United States and increase its ability to carry coal.[45] The Wall Street firm USB predicted that for the most part, the days of major railroads spinning off marginal track to short lines had passed. Moreover, some large rail systems tried to solve capacity problems by buying short lines, a reversal of the trend that had been taking place since the 1970s.[46] The Wisconsin & Southern Railroad proposed to convert the 51-mile state-owned Cheese Country Trail (on the right-of-way of the former Milwaukee Road and two failed short lines) back to a railroad.[47] And there were increasing calls in the trade press for government help in improving rail capacity.[48]

Abandonment had been difficult for railroads to accomplish prior to deregulation, but upon gaining the ability to more closely follow market forces in selling, rail-banking, or ripping up tracks, the industry bought time to turn itself around. Unfortunately, given the circumstances of cutting the fat of unwanted track, there may also have been cuts in some muscle and bone. Yet shippers, communities, policy makers and stockholders increasingly learned that, purged of the inefficiencies that earlier plagued them, trains were back.

NOTES

1. John R. Stilgoe, *The Metropolitan Corridor* (New Haven: Yale University Press, 1983).
2. Richard D. Stone, *The Interstate Commerce Commission and the Railroad Industry: A History of Regulatory Policy* (New York: Praeger, 1991), 1-3.
3. Page Smith, *The Rise of Industrial America: A People's History of the Post-Reconstruction Era* (New York: McGraw-Hill, 1984), 101.
4. Some authors, including Gabriel Kolko in *Railroads and Regulation, 1997-1916* (Princeton, NJ: Princeton University Press, 1965) believe that the railroads actually welcomed this legislation as it was not anti-trust regulation but regulation in detail, which would eliminate rate competition. Kolko contended that the railroads actually wrote the Act to regulate Commerce.
5. Stone, *The Interstate Commerce Commission and the Railroad Industry,* 20, 31.
6. L.L. Sharfman, *The Interstate Commerce Commission: A Study in Administrative Law and Procedure* (New York: The Commonwealth Fund, 1931-1937), 1:183-189, 237-243. The ICC tried to relinquish the responsibility of establishing the system of regional railroads several times in the 1920s, but finally adopted a consolidation plan in 1929,

although it hardly pushed it on the railroads. Ibid. 1:189-190 n. 27.

7. Ibid., 3:331-332. The excess capacity was the result of the overbuilding during the era beginning in the mid-1800s, as recounted in the previous section.
8. D. Philip Locklin, *Economics of Transportation,* 7th ed. (Homewood, IL: Irwin, 1972), 255-256.
9. Donald V. Harper, *Transportation in America: Users, Carriers, Government* (Englewood Cliffs, NJ: Prentice-Hall, 1978), 460.
10. *ICC Annual Report, FY 1972,* 11; *Abandonment of Railroad Lines, Commonwealth of Pennsylvania, et .al. v. United States, et. al.,* 414 U.S. 1017 (1973).
11. Robert B. Carson, *Main Line to Oblivion: The Disintegration of New York Railroads in the Twentieth Century* (Port Washington, NY:Kennikat Press, 1971), 207; Clair Wilcox, *Public Policies toward Business,* 4th ed. (Homewood, IL: Irwin, Inc., 1971), 387; Robert C. Fellmeth, *The Interstate Commerce Omission: The Public Interest and the ICC* (New York: Grossman, 1970), 84-5.
12. *ICC Annual Report, FY 1970,* 28-30; *ICC Annual Report, FY 1971,* 63-64.
13. Interstate Commerce Commission, Rail Services Planning office, *Rail Merger Study, Final Report* (Washington, DC: 1978), 39.
14. *ICC Annual Report, FY 1977,* 7, 38-40; John F. Due, "New Railroads Formed to Take Over Abandoned or Spun Off Lines, *Transportation Journal,* 24, no. 1 (Fall 1984): 30-50; John F. Due and Suzanne Leever, "The Post-1984 Experience with New and Small Regional Railroads," *Transportation Journal,* 33, no. 1 (Fall 1993): 40-52.
15. *ICC Annual Report, FY* 1980, 39.
16. U.S. Congress, *Staggers Rail Act of 1980,* 96th Cong., 2d Sess., P.L. 96-448; *ICC Annual Report, FY* 1981, 37-38; *Anonymous:* "ICC: New Abandonment Rules," *Railway Age,* 29 December 1980, 4.
17. Ibid.; *Chicago and North Western Transportation Company—Abandonment Between Ringwood, IL and Geneva, WI,* 363 ICC 956 (1981).
18. *Texas and Pacific Railway Company Abandonment between San Martine and Rock House in Culbertson County, Texas,* 363 ICC 666 (1980).
19. *ICC Annual Report, FY 1981,* 10; *Anonymous:* "New Abandonment Rules adopted," *Railway Age,* 28 September 1981, 6.
20. Frederic J. Stephenson, Jr., *Transportation USA* (Reading, MA: Addison-Wesley, 1987), 117; *ICC Annual Report, FY* 1982, 6, 38.
21. Richard Saunders, Jr., *Main Lines, Rebirth of the North American Railroads 1970-2002* (DeKalb: Northern Illinois University Press, 2003), 71, 73, 103-104, 116, 129, 223-224.
22. *Anonymous:* "Abandonment Exemption Granted by Commission," *Rail News Update,* 29 June 1983, 3; *Anonymous:* "ICC Trails Policy Set," *Traffic World,* 12 February 1990, 22.
23. Rail-to-Trails Conservancy web site. www.railtrails.org (accessed 2 April 2007).
24. David M. Cawthorne, "ICC Policy Permits Subsidy Offers for Exempt Rail Lines," *Traffic World,* 28 December 1987, 29; *ICC Annual Report, FY* 1988, 45; Ira Rosenfeld, "ICC Rejects Abandonment Based Mainly on Opportunity Costs," *Traffic World,* 13 August 1990, 19.
25. *Anonymous:* "ICC upholds its decision approving two rail abandonments," *Traffic*

World, 12 August 1991, 24; *Anonymous:* "ICC OKs Michigan abandonment, sets rule on line segmentation," *Traffic World,* 14 October 1991, 19.

26. Alice C. Saylor, "Organization, Practice, and Procedure," *Journal of Transportation Law, Logistics and Policy* 64, no. 2(Winter 1997): 241.
27. Frank N. Wilner, "UP, STB probe sought," *Traffic World,* 9 August 1999, 12; *Anonymous:* "Abandonment of rail lines may just have got harder," *Trains,* February 2003, 12-13.
28. *Anonymous:* "Railroads Face Possibility of Tighter Regulation," *Trains,* June 2006, 10.
29. Saunders, *Main Lines,* 289.
30. Burlington Northern Santa Fe chairman Matthew K. Rose has written that "In the past decade, the U.S. economy has shifted to a consumption-driven nation from a production-oriented one." *Anonymous:* "Investing in New Capacity," *Railway Age,* September 2006, 42.
31. Luther S. Miller, "Can Intermodal Ease the Squeeze?" *Railway Age,* August 2006, 19.
32. Miller, "Can Intermodal..." citing statistics from the Federal Railroad Administration's web cite at www.fra.gov, 20.
33. Martin Rushmere, "Crossing the Pacific," *Traffic World,* 26 June, 2006, 18.
34. Bill Armbruster, "Shippers Float Alternatives," *Traffic World,* 3 July 2006, 32.
35. Fred W. Frailey, "Phoenix on a Winged Shield," *Trains,* February, 2005, 31-43.
36. Steve Glischinski, "Capacity May Force BN's Hand on Stampede Pass," *Trains,* April 1995, 16-18.
37. Bruce Kelly, "Stampede Pass Comes Back to Life," *Trains,* January 1997, 28-30; Saunders, *Main Lines,* 256.
38. Trail Back to Rails in Nebraska? Web site of AmericanTrail.org (accessed 2 April 2007).
39. Don Phillips, "Quit Tennessee Pass? Never Mind," *Trains,* November, 1998, 25.
40. Mark Hemphill "Tennessee Pass in Twilight, *Trains,* March 1997, 34-45.
41. *Anonymous:* "Scanner," *Trains,* January 1998, 25.
42. *Anonymous:* "Scanner," *Trains,* July 1998, 23.
43. Ken Stitzel, "What's Next for the Tennessee Pass Line?" *Colorado Central Magazine,* August 2001, 29.
44. John D. Boyd, "Catching its Breath," *Traffic World,* 19 February, 2007, 37.
45. William C. Vantuono, "Can Railroads Keep the Good Times Rolling?" *Railway Age,* October 2006, 27.
46. John Gallagher, "Short Lines Sound Off," *Traffic World,* 10 July 2006, 26.
47. Andy Cummings, "Could Trails Return to Rails?" *Trains,* May 2007, 19.
48. Edward R. Hamberger, President, Association of American Railroads, "Commentary" *Traffic World,* 26 September 2006, 6.