7.0 Montana Rail Issues

7.1 MONTANA RAIL COMPETITION

Most studies of national rail competition focus on the effects of the Staggers Rail Act of 1980 as the cause of industry consolidation and diminished services, but Montana felt the effects of consolidation a decade earlier.

The 1970 merger creating the Burlington Northern Railroad reduced the number of Class I railroads in Montana from six to four. In 1977, the bankruptcy of the Chicago, Milwaukee, St. Paul, and Pacific Railroad (the Milwaukee Road) further diminished competition and the number of active rail lines. The State of Montana, at the time, lacked the financial resources to acquire or rail-bank any of the Milwaukee Road line, an east-west route that is no longer intact.

When the Staggers Act was passed, Montana already was dominated by one carrier, and the creation of the Montana Rail Link in 1987 to operate the southern BNSF railroad west of Huntley, Montana did little to improve Interstate competition for Montana rail shippers.

The post-Staggers environment may have brought Montana some of the same benefits enjoyed by shippers in other areas of the country. National data suggests general improvement in railroad performance and service, including increased productivity, growth of freight volumes, and lower rates (Figure 7.1).

Montana shippers have limited competitive options when they experience problems with rail rates, car availability, or services. Several studies lend support for these concerns, particularly affecting heavy, low-value cargo like grain, coal, and wood products that account for the bulk of freight generated in the State. Montana shippers and elected officials have worked to identify avenues of relief from limited rail competition.

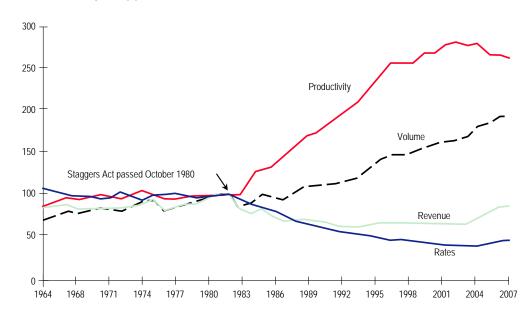


Figure 7.1 U.S. Freight Rail Performance Post-Staggers Rail Act 1981=100

Source: AAR, Why the Rail Re-Regulation Debate Is Important, May 2008, page 2, 2007 data is preliminary.

State Rail Competition Efforts

The Montana Legislature enacted Senate Bill 315 in 2003, directing the Governor's Office of Economic Development to conduct a study to assess conditions affecting rail competition in Montana, and analyze possibilities to improve rail freight competition. The 2004 report, *Rail Freight Competition Study as Provided by Montana Senate Bill 315*, offers a thorough discussion of competition issues facing the State. The study found that limited rail competition is only one of a series of factors that foster the dual problems of high rates and limited service. Other factors include:

- Montana's relatively small transportation market;
- Geographic position, and distance from the more robust markets on the West Coast and in the Midwest;
- Staggers Rail Act emphasis on financial health of the railroads, and interpretation of that law by the Interstate Commerce Commission (ICC) and its successor entity, the Surface Transportation Board (STB); and
- Limited transportation options in Montana other than rail (distance to waterway transportation via barge, and long trucking distances).⁷¹

⁷¹Rail Freight Competition Study as provided by Montana Senate Bill 315, R.L. Banks & Associates, October 29, 2004, page ES-2.

The report's recommendations focus on cooperative advocacy measures to expand competition and alter the rules under which the STB conducts its business. The report found that rates for Montana wheat being shipped to Pacific Northwest ports were 50 percent higher than rates in states with competitive alternatives, costing Montana \$60 million a year, and devaluing Montana wheat land by \$1 billion.⁷² The report found that coal, the largest volume commodity moving by rail out of Montana, was moving at rates nearly equal to or competitive with coal producers in other states.

Based on the report's recommendations, in 2005, the Montana Legislature created the Rail Service Competition Council and charged it to:⁷³

- Promote rail service competition in the State that results in reliable and adequate service at reasonable rates.
- Develop a comprehensive and coordinated plan to increase rail service competition in the State.
- Reevaluate the State's railroad taxation practices to ensure reasonable competition while minimizing any transfer of tax burden. The reevaluation of the State's railroad taxation practices should include, but is not limited to, a reevaluation of property taxes, taxes that minimize highway damage, special fuel taxes, and corporate tax rates.
- Develop various means to assist Montanans impacted by high rates and poor rail service.
- Analyze the feasibility of developing legal structures to facilitate growth of producer transportation investment cooperatives and rural transportation infrastructure authorities.
- Provide advice and recommendations to the department of transportation.
- Coordinate efforts and develop cooperative partnerships with other states and Federal agencies to promote rail service competition.
- Act as the State's liaison in working with Class I railroads to promote rail service competition.
- Promote the expansion of existing rail lines and the construction of new rail lines in the State.

⁷²2004 Rail Competition Study, page ES-4.

⁷³MCA §2-15-2511 (House Bill 769, Montana Legislature).

Membership of the council was also defined in statute to include:

- Four state agency representatives (directors of the Departments of Agriculture, Revenue, and Transportation, and Chief Business Officer of Office of Economic Development).
- Seven members appointed by the Governor, each with a special qualification (expertise in Class I rail, Class II rail, trucking industry, mineral industry, coal industry, timber industry, and a farm commodity producer with knowledge of farm commodity transport).
- Two members from the legislative Economic Affairs Interim Committee chosen by the presiding officer of the committee (representing majority and minority parties, one from each house).

The Council formed subcommittees, met regularly, and reported to the Montana Legislature.⁷⁴ The Council paid particular attention to increasing intermodal movements in Montana for smaller shippers, and increasing competitive options for grain, coal, and wood products shippers.

Based on the initial findings of the Council in 2007, the Montana Legislature appropriated funding to the State Attorney General's Office to further examine rail competition issues for Montana shippers, particularly grain shippers. That report was published by the State Attorney General in February 2009 (referred to here as the Railroad Rate Report).⁷⁵

The 2009 Railroad Rate Report finds that:

- Montana grain shippers are charged exceptionally high rates Rate reasonableness is often gauged by a ratio of the railroad's revenues for a movement (based on rail rates) divided by the variable cost of the movement, referred to as R/VC. Using 2006 STB data, the report determines that R/VC ratio for average rates for Montana wheat shipments, shuttle and nonshuttle, was 253 percent, well in excess of the generally applied 180 percent R/VC measure for rate reasonableness. Montana wheat shipments have higher R/VC ratios than other wheat producing states.
- Montana shippers pay excessive fuel surcharges The report estimates that fuel surcharges being passed on to Montana shippers exceed the actual costs of fuel, and that total revenues for fuel (fuel costs included in the base rate, and fuel surcharges) exceed actual fuel costs by 52 percent.

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⁷⁴The 2009 Legislature did not provide funds for Council activities, but the body may continue to function as a volunteer organization.

⁷⁵Railroad Rates and Services Provided to Montana Shippers: A Report Prepared for the State of Montana, State Attorney General's Office, prepared by John Cutler, Andrew Goldstein, G.W. Fauth III, Thomas Crowley, and Terry Whiteside, February 2009. The report also is discussed in Section 5.0 of this report relating to grain shuttle facilities.

Montana shippers receive inadequate services - Despite high rates, the
report finds that service levels are not satisfactory, based on fewer grain elevators remaining in business, resulting in longer hauls from producers. The
report also finds that car availability and timing of shipments have not
improved for grain shippers.

BNSF took issue with the 2009 Railroad Rate Report through a February 2009 press release, disagreeing with the 2006 data used for the R/VC analysis, representing that nonshuttle movements of wheat remain the majority of grain shipments, and that grain shipment service levels have improved since 2005.

Prior to the issuance of the 2009 report, BNSF reached an agreement with the Montana Grain Growers Association and the Montana Farm Bureau, granting producers the ability to seek arbitration of rate disputes through these organizations to the BNSF. Producers may pay the costs of freight movements, but are not direct customers of the railroads and, therefore, are unable to bring cost disputes before the STB. This agreement sets up a process for arbitrating certain rate disputes.

The 2009 Railroad Rate Report takes issue with the arbitration agreement on a number of fronts, finding that the arbitration does not extend to grain elevators or direct shippers of grain that the arbitration methodology is inferior to that offered Canadian grain shippers, or that sought in Federal rail competition legislation (discussed below).

The remainder of this section will discuss some of these competition issues.

Federal Competition Relief Issues

A 2006 report by the Federal Government Accountability Office⁷⁶ discussed the overall levels of rail competition. The report has been cited by both shippers and railroads as demonstrating support for their views about rail competition. The report offers a good explanation of some of the rate relief measures that shippers with limited competition ("captive shippers") are seeking, beyond any general reassessment of rate reasonableness by the STB.

All these measures affect the extent to which railroads can practice differential pricing, a pricing strategy by which railroads may charge shippers different rates for similar shipments. Railroads engage in this practice because they have such large fixed capital costs, meaning that their average costs will always exceed marginal costs – in other words, the cost to maintain the rail network divided among all traffic will be higher than the incremental cost of transporting an individual load over that network.

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⁷⁶Freight Railroads: Industry Health Has Improved, but Concerns about Competition and Capacity Should Be Addressed, Government Accountability Office Report GAO-07-94, October 2006, pages 44-51.

Differential pricing also reflects modal competition. In certain markets, shippers may have competitive options with another railroad, or with another mode like barges or trucks. In those markets, railroads may set rail rates closer to marginal cost rates in order to attract shippers' business. Because the railroad needs to recover the fixed costs of their network, the railroad may set rates higher for other shippers with fewer options. Differential pricing also means that a large company shipping identical commodities in identical rail cars over nearly equivalent distances in different parts of the country over the same railroad may pay entirely different rates.

The balancing act for railroads, shippers, and policy-makers is in the difference between rates that are "reasonable" and rates that are "fair." Rate fairness would give shippers similar rates for similar shipments, while rate reasonableness could allow railroads to set rates by considering fixed network costs and competitive options available to shippers, subject to some upper limit on how much the rate exceeds marginal costs. Public policy that seeks rail rate fairness may affect a railroad's revenue adequacy, the extent to which the aggregate revenues from shipment rates provide a railroad with sufficient resources to make investments to keep its network functioning at an adequate level. The reasonable market behavior of a single shipper or classes of shippers to seek remedies to rising logistics costs could prove to be self-defeating if lower rail revenues lead to less spending on track or equipment, which could cause locomotive velocity to decrease, add more slow orders on track, all of which would reduce customer service levels.

In the short term, shippers are less sanguine about rising rail rates. A 2007 study by the American Association of Railroads, *National Rail Freight Infrastructure Capacity and Investment Study*,⁷⁷ reported that logistics costs as a percent of total gross domestic product rose to 9.9 percent in 2006, after steady rates of decline since the 1970s. As shippers are faced with the pressures of rising logistics costs across all modes, they are less likely to continue to accept the idiosyncratic pricing practices of railroads or pay increased surcharges for fuel costs or for infrastructure congestion. For this reason, coalitions of agricultural, coal, and chemical shippers are joining together to seek improvements in pricing practices that would expand the competitive options available for captive shippers.

Here are some of the pricing/service quality/rate-setting practices that might affect rates or service for captive shippers identified by the GAO report.

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⁷⁷National Rail Freight Infrastructure Capacity and Investment Study, September 2007, prepared for Association of American Railroads (AAR) by Cambridge Systematics, Inc.

Reciprocal Switching. A shipper may be located on a single railroad, but that railroad interchanges with another railroad nearby. Reciprocal switching would allow the STB to require railroads to accept a customer's shipments from another railroad for a fee. Railroads currently have made these kinds of arrangements for certain shipments, but do not support being required to do so. The STB would be required to decide the proximity among railroads eligible for mandatory reciprocal switching, as well as the rates for the movement. Figure 7.2 illustrates this movement.

Railroad 1 tracks
Railroad 2 transports
Railroad 2

Railroad 2 transports
Railroad 2

Railroad 1 tracks
Railroad 2 tracks
Railroad 1 tracks

Figure 7.2 Example of Reciprocal Switching

Terminal Agreements. This would allow the STB to require one railroad to grant access to its tracks or terminal facilities for another railroad to operate over, for a fee, as illustrated in Figure 7.3. It is similar to reciprocal switching, but allows the same railroad to control the movement of cars from its line to the second rail line and through its terminals or yards. The STB currently must find evidence of anticompetitive conduct by another railroad before granting terminal access. This might increase competition among railroads for currently captive shippers.

Railroad 1 allowed access to Railroad 2 tracks, terminals, and other facilities

Railroad 2 tracks
Railroad 2 tracks
Railroad 2 tracks
Railroad 2 tracks
Railroad 1 traffic on its own tracks
Railroad 2 tracks
Railroad 2 tracks
Railroad 2 tracks
Railroad 2 tracks

Figure 7.3 Example of Terminal Agreement

Trackage Rights. This would allow the STB to require one railroad to grant access to its tracks to another railroad beyond terminal facilities for a fee, as illustrated in Figure 7.4. This relief has been mandated in certain merger applications for shippers losing competitive access. Fees would need to be set sufficient for the host railroad to gain sufficient revenue to maintain the line, otherwise conditions might degrade, as would service levels.

Railroad 1 granted trackage rights to serve specified points on Railroad 2 tracks

Railroad 2 tracks

Railroad 2 tracks

Railroad 1 tracks

Railroad 2 tracks, per rackage rights agreement

Railroad 1 tracks

Figure 7.4 Example of Trackage Rights

Bottleneck Rates. Some shippers may have more than one railroad that serves an origin or destination, but have some portion of the route that is served by only one railroad. The STB ruled in 1996 that railroads were not required to quote rates separately for the bottleneck segment if they also offered service from origin to destination, as illustrated in Figure 7.5. Allowing the STB to require railroads to quote bottleneck rates may not address the question of rate reasonableness, but it could increase competitive options for shippers.

Railroad 1 does not have to quote a rate from A to B, only A to C.
Railroad 2 can quote B to C, but generally does not.

Railroad 2

Railroad 2

Railroad 2

Railroad 2

Figure 7.5 Example of Bottleneck Rates

Interchange Agreements (Paper Barriers). Since deregulation in 1980, railroads have had more flexibility to abandon or sell rail lines, which has resulted in many more short-line and regional railroads being created to offer rail services over these lines, either by purchasing or leasing the former railroad's property. In some cases, the up-front cost of the purchase or lease has been reduced by a contractual agreement between the short-line and Class I railroad that requires almost all traffic generated on the short-line railroad to interchange only with the selling Class I, as illustrated in Figure 7.6.

Interchange agreements can inhibit smaller railroads that connect with or cross two or more Class I rail systems from providing competitive service to rail customers. The extent to which the agreements limit competition is unknown because they are private and confidential contracts. Preventing these kinds of arrangements or offering relief from those executed in the past may offer shippers competitive alternatives. Changing these arrangements also could increase the up-front cost of these sale/lease transactions or reduce provisions for certain levels of bridge traffic. This may affect the number of lines that are abandoned rather than transferred and could affect the financial standing of current short-line owners.

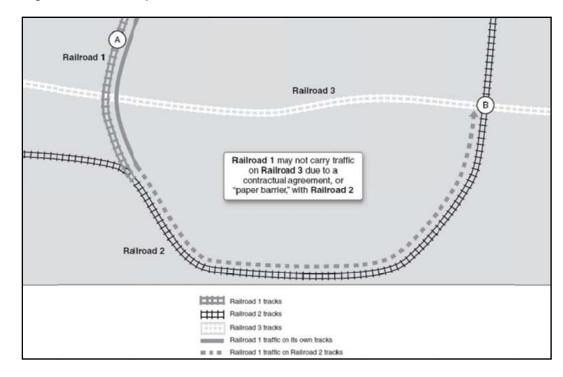


Figure 7.6 Example of Paper Barriers

The potential changes in the regulation of railroad rate-setting practices described above would more likely benefit shippers of larger quantities of homogenous products. As Class I railroads have increased productivity and rationalized (shrunk) their networks, the remaining system operates most efficiently for larger blocks of carloads over longer distances, rather than smaller numbers of carloads in mixed freight. As a result, smaller shippers can have more difficulty getting competitive rates for access to the Class I network. Thus, some of these measures granting access from one railroad to another would first benefit shippers whose quantities and frequencies of carloads would attract service, or whose origin or destination points are characterized by competitive options.

Since these measures may not necessarily benefit smaller shippers, some shippers are seeking a more fundamental shift than these incremental approaches, they are asking for a renewed commitment to the railroads' "common carrier" obligations, under which any shipper could get service for a reasonable rate.

Congressional Responses to Competition Issues

The U.S. Congress has recently considered two legislative measures to address the concerns about competitive issues described above. The first aims to change the standards and practices under which the STB regulates railroads. The second removes certain antitrust exemptions from railroad rate-setting and merger transactions regulated by the STB.

STB Regulation

This legislation⁷⁸ states that its purpose is to set STB directives calling for effective competition among rail carriers, reliable rail transportation service for rail customers, and reasonable processes for challenging rate and service issues. The bill would:

 Address bottleneck rate issues by requiring a rail carrier, upon shipper request, to establish rates for transportation and provide requested service between any two points on the carrier's system. This rate would be established regardless of whether the points are the origin or destination of the shipment or whether there were any other contractual agreements by the shipper with any railroad for portions of the movement.

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⁷⁸Introduced in the 110th Congress as The Railroad Competition and Service Improvement Act of 2007, S.953/H.R. 2125.

- Address paper barriers by prohibiting agreements (prospectively and retroactively) among Class I railroads and short-line railroads that would:
 - Restrict the ability of the short-line to interchange traffic with other rail carriers;
 - Restrict competition of rail carriers in the region affected by the activity in a manner that would violate U.S. antitrust laws; or
 - Require higher per car interchange rates for short-lines to interchange traffic with other rail carriers. Prescribes procedures for Board review of any activity alleged to have resulted in a restriction of competition.
- Makes mandatory (currently, discretionary) entry by rail carriers into reciprocal switching agreements where the Board finds it is practicable and in the public interest, or where such agreements are necessary to provide competitive rail service.
- Requires the Board to designate any state or substantial part of a state as an
 area of inadequate rail competition after making certain findings related to
 rate reasonableness. Once such a designation is made, then the STB is
 required to institute reciprocal switching, terminal rights, trackage rights, or
 other rate remedies.
- Requires the Board to post rail service complaints on its web site.
- Sets forth time limits for the Board to act on complaints filed alleging unlawfulness of a new or revised rail rate, rule, or practice.
- Establishes the Office of Rail Customer Advocacy within the Department of Transportation.
- Grants rail customers access to a Board process for determining rail rate reasonableness in railroad market dominance cases. Changes the reasonableness standard to consider only fixed and marginal costs, not the current practice of comparing rates to hypothetical railroad constructed to offer similar services.
- Requires submission to arbitration of certain rail rate, service, and other disputes.
- Authorizes the Board to investigate rail carrier violations on its own initiative (under current law, the Board is authorized to investigate only on complaint).
 Requires the Board (currently, discretionary) to initiate an investigation upon receiving a complaint alleging rail carrier violations.

Only the Senate version of this legislation received a committee hearing during the 110th Congress, and neither bill had been adopted by either the House or Senate. Both bills were referred to committees with primary oversight for railroads. In general, the bills are supported by a range of coalitions for improved rail service, and opposed by the railroads.

Antitrust Exemptions

The other legislation⁷⁹ is aimed at limiting antitrust exemptions currently applicable to railroads, particularly those affecting rate-setting practices, or mergers, acquisitions and combinations. The bill would accomplish the following:

- Offers injunctive relief to private parties seeking relief from practices violating antitrust provisions. Currently, only the STB decides on railroad matters.
- Makes proposed or consummated mergers subject to antitrust review by courts, whereas current law exempts mergers approved by the STB from antitrust review.
- Courts would no longer be required to defer to the jurisdiction of the STB in any civil antitrust action.
- Adds Federal Trade Commission enforcement of railroad antitrust issues.
- Allows treble damages for antitrust violations regardless of published rates or rate complaints, whereas current law and court precedent limits damages to published rates.
- Removes antitrust exemptions in rate-setting agreements, mergers, and consolidations.

The legislation is specifically aimed at removing the paper barriers and removing the bottleneck rate issues. A September 27, 2004 letter from U.S. Assistant Attorney General William Moschella to Representative James Sensenbrenner, then chairman of the House Judiciary Committee, stated that but for the current railroad antitrust exemptions, bottleneck rates, and paper barriers might be examined under antitrust laws (decided on the merits of any given case). This law would open rate-setting and mergers to antitrust challenges from a number of parties. Both the Senate and House versions of this legislation were reported from their respective committees and placed on the Senate or House calendar, but not passed by either house as during the 110th Congress; the Senate bill in the 111th Congress has been reported from committee and placed on the Senate calendar. This legislation is being considered in the committees with jurisdiction over antitrust issues, not in the committees of primary railroad jurisdiction.80 Similar rail shipper groups that support the STB regulatory legislation support the antitrust bills, and are joined by a number of State Attorneys General, including Montana's Attorney General. Railroads oppose the legislation.

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⁷⁹Introduced in the 110th Congress as The Railroad Antitrust Enforcement Act of 2007, S. 772/H.R. 1650, and in the 111th Congress as the Railroad Antitrust Enforcement Act of 2009, S. 146/H.R. 233.

⁸⁰In the 111th Congress, the antitrust legislation (H.R. 233) has been jointly referred to the House Committee on the Judiciary and to the House Committee on Transportation and Infrastructure (the committee with primary railroad jurisdiction).

STB Competition Study

While these legislative proposals were debated, the U.S. Surface Transportation Board contracted for a study on rail competition in response to some of the issues raised in the 2006 GAO report. In November 2008, the study, by Christensen & Associates (i.e., the Christensen Study), was published.⁸¹

The report summarizes the overall state of national rail competition with the following observations:

- Class I railroads' rates (real revenue per ton-mile) rose substantially above marginal cost in 2006.
- Economies of density and fixed costs require railroad pricing above marginal cost to achieve revenue sufficiency.
- For most years in the 1987 to 2006 period of the study, the Class I railroad industry's earnings do not appear to be above normal profits.
- The increase in railroad rates experienced in recent years is the result of declining productivity growth and increased costs rather than the increased exercise of market power.
- Railroads use differential pricing, including the use of location-specific markups, to recover their total costs.
- Different commodity groups face different markups of railroad rates over marginal costs. In particular, the study found relatively small markups for coal, metallic ores, nonmetallic minerals, and transportation equipment, and relatively large markups for grains.
- Within commodity groups, shippers with no or very limited transportation options tend to pay higher rates than shippers with the same shipment characteristics who enjoy more or better transportation alternatives.
- The ratio of revenue to URCS variable cost (R/VC) is weakly correlated with market structure factors that affect shipper "captivity," and, thus, is not a reliable indicator of market dominance.
- Capacity "tightness" is primarily due to congestion at terminals or other specific network locations. Terminal congestion in the 2003-2005 period was linked to service performance declines during that time period.
- There is little room to provide significant rate relief to certain groups of shippers without requiring increases in rates for other shippers or threatening railroad financial viability.

⁸¹A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals That Might Enhance Competition, L.R. Christensen Associates, November 2008.

- Incremental policies such as reciprocal switching and terminal agreements have a greater likelihood of resolving shipper concerns via competitive response, and have a lower risk of leading to adverse changes in industry structure, costs, and operations compared to other policy options the study examined.
- Some shippers will not benefit from efforts to enhance railroad competition, implying the necessity of continued regulatory oversight.⁸²

Each of these points is discussed in much more detail in the three volumes of the report.

The 2008 Christensen Study also examines the likely economic effects of the various legislative remedies being sought that are described above. The study concludes that competition alternatives that involve longer lengths of haul (which differentiates bottleneck rates from reciprocal switching and trackage rights from terminal agreements) may not necessarily lead to lower rail rates by competing carriers. The study also concludes that examining interchange agreements and other paper barriers on a fact-based, case-by-case basis, as the STB has done recently, may result in a process similar to antitrust review, and results superior to a rule of general applicability (including an outright removal of the antitrust exemption).⁸³ The study affirms that STB reform measures such as better rail service performance data collection and expedited rate reviews also would advance the interests of increased competition without adverse economic effects.

The 2008 Christensen Study has two findings of particular applicability to Montana's rail competition discussed in the 2004 Competition report and under consideration by the Rail Service Competition Council. First, the study discusses at length the inadequacy of the revenue/variable cost measurement as an indicator of market dominance.⁸⁴ The study identifies questions about the reliability of data for the measure, and analyzes whether the measure correlates with other market structure competition characteristics such as presence of rail competition (at terminals or destinations) or intermodal competition (such as water transportation).

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⁸²²⁰⁰⁸ Christensen Study, pages 23-3 and 23-4.

⁸³Disclosure of Rail Interchange Commitments, STB Ex Parte No. 575 (Sub-No. 1), October 2007, May 2008.

⁸⁴²⁰⁰⁸ Christensen Study, Chapters 11 and 18.

The report includes two related national maps: Figure 7.7 from the report, which shows the revenue/variable cost ratios for wheat shipments by county; and Figure 7.8, which shows the correlation of market structure variables (modal alternatives, shipping distances, rail competition) to rail rates in wheat pricing models generated in the report. Comparing the two maps, the report notes that areas with fewer modal alternatives like Western Kansas (also southwestern Nebraska and the Texas Panhandle) have less pronounced R/VC ratios than their correlation with market structure measures shown in Figure 7.7. The report also notes that areas like the Pacific Northwest which have more alternatives and less distance to water transport have higher R/VC ratios than they have market structure correlation.

Second, the 2008 Christensen Study concludes that some regions of the country are subject to higher rates due to limitations of shipment geography, and may not be influenced by rail-specific regulations. This is particularly the case for wheat transportation in Montana and North Dakota. Figure 7.7 shows a strong correlation between market structure elements and wheat price model outputs, indicating that the Montana and North Dakota rail shippers are likely to continue to pay relatively higher rail rates in the absence of competitive alternatives.

For this reason, the study concludes, such cases require additional regulatory monitoring to ensure that exercise of local market power does not become unreasonable. The Montana Attorney General has also focused on improvements to STB rate case procedures for smaller and medium shipments and for expedited rate review. Simplified rate case consideration at the STB is now possible for Montana shippers under two new methods described in the 2009 Railroad Rate Report,⁸⁵ which may offer shippers less costly approaches than contested rate-setting cases at the administrative level. The barrier to contested rate relief may be less about the remedies available than about the willingness of grain shippers to pursue cases and risk possible retaliatory disruptions in rail service.

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⁸⁵ Montana Attorney General, February 2009.

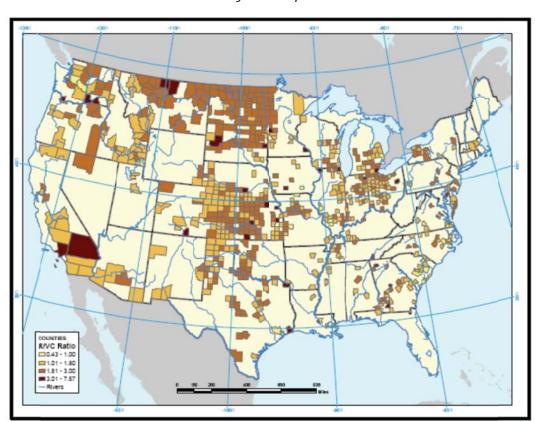


Figure 7.7 R/VC Averages by Origin County for Wheat Shipments 2001-2006 Carload Waybill Sample

Source: Figure ES.3, 2008 Christensen Study, page ES-13.

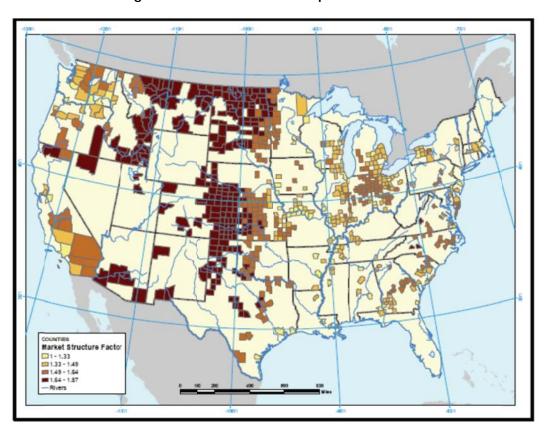


Figure 7.8 County-Level Effects of Market Structure Variables in Wheat Pricing Models on Real Revenue per Ton-Mile

Source: Figure ES.4, 2008 Christensen Study, page ES-14.

Private Responses to Montana Rail Competition Issues

In January 2009, a rail rate arbitration agreement was entered into between BNSF Railways, the Montana Grain Growers Association, and the Montana Farm Bureau Federation to enable joint resolution of rate and service disputes.⁸⁶ The Federal Surface Transportation Board has been the traditional arbitrator of freight rate disputes, but it limits cases to customers of the railroads. This agreement gives farmers legal standing in rail rate disputes and sets up a formal system to mediate and arbitrate rail freight rates.

⁸⁶News releases of Montana Grain Growers Association, January 29, 2009; Montana Attorney General, February 26, 2009; and BNSF Railway, February 26, 2009.

According to documents posted by the Montana Grain Growers Association, ⁸⁷ the agreement includes these particulars. Producer organizations determine the merit of a producer's claim, represent producers in the mediation/arbitration process, and execute mediation of claims within 30 days. If mediation fails, the matter is presented to a panel of arbitrators, whose decision is binding. The arbitration panel takes into account competitive alternatives to the transportation, capital requirements of the rail system used for the move in question, revenue available to sustain the network, rate levels on comparable traffic, applicable market factors comparing similar origins and markets for the same commodity, and the overall cost of providing the service. If justified, relief in the form of a rate prescription is available for the one-year period following issuance of an award by the panel, and for the period 14 months prior to the commencement of arbitration.

Argus Rail Business on May 27, 2010 recognized the arbitration agreement with a "Win-Win" award. By that publication's report, the first formal mediation of grain rates between BNSF and grain growers took place in December 2009 and resulted in a significant rate reduction for a number of customers. The case was filed, prepared, and completed in two weeks.

7.2 Intermodal Service

At one point, Montana had three facilities on the BNSF system that offered intermodal services: Billings, Shelby/Port of northern Montana, and Butte/Silver Bow. In 2002, the intermodal terminals were closed at Shelby and Butte, leaving Billings as the only intermodal terminal. A BNSF facility map (intermodal facilities in red) is shown on the Figure 7.9.

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⁸⁷Agreement to Administer Alternative Dispute Resolution: Summary and Exhibit 1; Montana Grain Growers Association; available at http://www.mgga.org/FarmPolicy/Rail/ADR_detailed_summary.pdf.

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Figure 7.9 BNSF Intermodal Network Inset: Montana Facilities

Source: Burlington Northern Santa Fe corporate web site.

During 2007 and 2008, MDT sponsored research into intermodal market potential for Montana products.⁸⁸ The first approach was to identify potential customers for intermodal services and use a survey instrument to gain information about location for and use of new intermodal terminals in Montana. Survey respondents stated they were using terminals at Billings, Calgary, Spokane, and Seattle. Fifty-nine percent of those surveyed stated that if intermodal service was available, they would use it for export shipments, and 52 percent stated that they would use intermodal import service if available. Most surveyed were interested in 20-foot containers, and 52 percent stated that they would use intermodal service even if it was less than daily service.

The surveys and direct interviews with representatives of industry associations and other modes offered valuable information. This primary data was supplemented by secondary data on economic activity for various industries to estimate potential generation of intermodal shipments. Figure 7.10 shows the total intermodal shipments by industry and by geographic subregion of the State.

Of these total shipments, the majority would be destined for Pacific Northwest ports, as shown in Figure 7.11.

Figure 7.12 shows the volumes and distribution for domestic intermodal movements (west and east).

⁸⁸Container/Trailer on Flatcar in Intermodal Service on Montana's Railway Mainlines, Prime Focus LLC and Western Transportation Institute, October 2008.

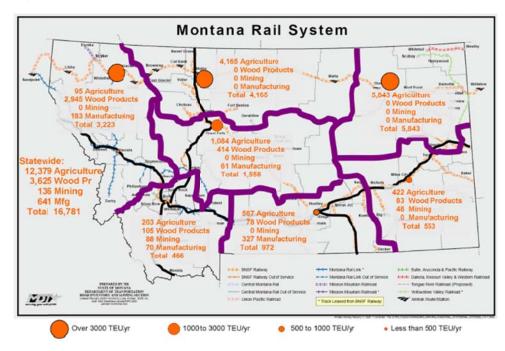


Figure 7.10 Total Montana Intermodal Shipments by Industry and Subregion

Source: Container/Trailer on Flatcar in Intermodal Service on Montana's Railway Mainlines, Prime Focus, LLC and Western Transportation Institute, October 2008, page 85.

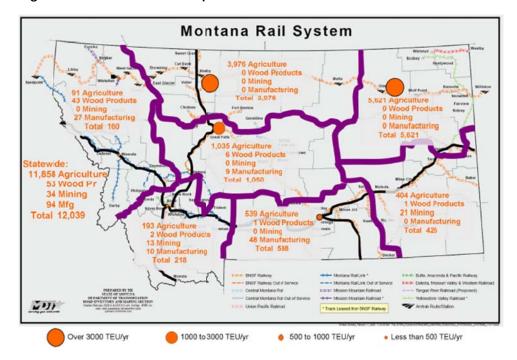


Figure 7.11 Intermodal Shipments Destined for Pacific Northwest Ports

Source: Prime Focus/Western Transportation Institute Intermodal Study, page 87.

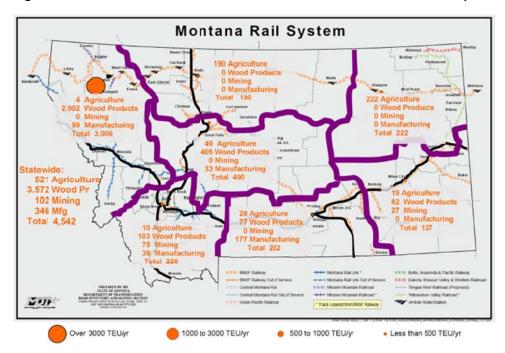


Figure 7.12 Volumes and Distribution for Domestic Intermodal Shipments

Source: Prime Focus/Western Transportation Institute Intermodal Study, page 88.

The study estimated intermodal shipment volumes that could be expected at the three terminal sites that were in service a decade ago: Shelby, Butte, and Billings. Container volumes in the vicinity of those terminals were estimated at 4,000, 1,000, and 500 20-foot equivalent units (TEU) per year, respectively, well below industry standards for launching new service. BNSF has indicated interest in restoring regular service if volumes could be approximately 250 container lifts per week, or 13,000 TEUs a year. That amounts to three-quarters of the total statewide demand, but a single intermodal terminal would be unlikely to attract that much volume given the drayage distances from around the State.

Global market conditions can change and cause the underlying business models of current rail intermodal service to also change. Privately financed intermodal terminals operated by third parties (such as those in Minnesota) or public-private partnerships (like those in North Dakota) may offer models for beginning intermodal services in Montana.

7.3 COAL TRANSPORT

Coal accounts for a significant percentage of the total tons of rail shipments originating in Montana. Montana, the nation's fifth largest coal producing state, accounts for about 4 percent of national production. Wyoming is the nation's single largest coal producer with about 42 percent national production. Major coal producing counties in Montana are shown in Table 7.1.

Table 7.1 Montana Mines by County

Mine Type, Production 2007 (Thousand Short Tons)

	Under	ground	Sui	rface	Total	
County	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Big Horn	-	-	3	30,401	3	30,401
Musselshell	1	47	_	_	1	47
Richland	-	_	1	358	1	358
Rosebud	_	_	1	12,583	1	12,583

Source: Energy Information Administration, Annual Energy Outlook 2008.

Most of Montana's coal production is shipped via rail, as shown in Table 7.2. Over 73 percent of Montana's coal production is shipped via rail (much of it eastward), compared to 71 percent rail share nationwide. Over 23 percent of Montana's coal production is used for electricity generation in the State, mostly transported by tramway from Colstrip mines in Rosebud County to electric generating facilities nearby. A majority of Montana's coal is exported and 45 percent of Montana's electricity generated by coal and hydroelectric plants also is exported. By industrial use, these data show that nearly 97 percent of Montana's coal is used in electricity generation, compared to 92 percent nationally.

In 1975, the Montana Legislature created a grant program under which the Coal Board awards funding from the state coal severance tax to local governments, state agencies, and tribal governments to meet the local impacts of coal production or coal-using energy complexes. The Montana Department of Commerce designates counties in areas impacted by coal production or coal energy usage, as shown in Figure 7.13, and the majority of grants go to recipients in these counties (although a small number of grants go to counties surrounding the lignite mine in Richland County). This program also funds highway construction and maintenance on roads affected by coal. Almost \$77 million has been distributed in coal impact grants to governmental entities through this grant program.

Table 7.2 Coal Distribution by Mode, Montana and United States *Production 2007 (Thousand Short Tons)*

Origin by Method of Transportation	Electricity Generation	Coke Plants	Industrial Plants	Residential and Commercial	Total	Percent of Total
Montana Total	39,419	0	1,020	323	40,762	100.0%
Railroad	28,951ª	0	693	283	29,927	73.4%
Tramway, Conveyor, and Slurry Pipeline	9,548	0	0	0	9,548	23.4%
Truck	921	0	327	39	1,287	3.2%
Unknown	0	0	0	0	0	0.0%
Percent of Total	96.7%	0.0%	2.5%	0.8%	100.0%	100.0%
U.S. Total	1,032,147	21,976	59,557	3,228	1,122,605	100.0%
Great Lakes	7,261	1,097	588	0	8,946	0.80%
Railroad	757,927	10,417	30,340	779	799,463	71.2%
River	90,313	8,775	3,815	410	103,314	9.2%
Tidewater Piers	2,220	0	0	0	2,220	0.20%
Tramway, Conveyor, and Slurry Pipeline	75,704	0	2,238	41	77,983	6.95%
Truck	96,277	1,688	22,575	1,998	122,538	10.92%
Unknown	2,445	0	0	0	8,142	0.73%
Percent of Total	91.9%	2.0%	5.3%	0.3%	100.0%	100.0%

Source: Energy Information Administration, April 2008, Domestic Distribution of U.S. Coal by Destination State, Consumer, Origin, and Method of Transportation, 2006. http://www.eia.doe.gov/cneaf/coal/.

Cambridge Systematics, Inc. 7-25

^a Includes 4,815,000 tons used for electricity generation that EIA tabulations note are ultimately shipped through the Great Lakes via Michigan.

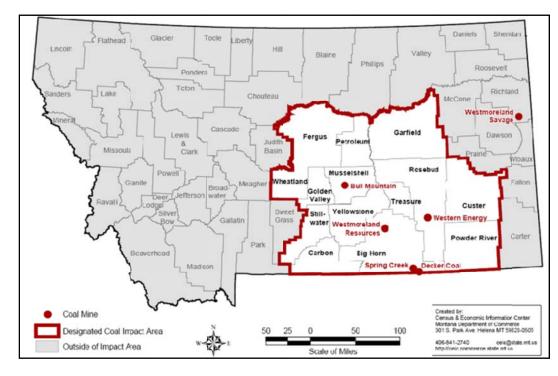


Figure 7.13 Montana Coal Mines and Designated Coal Impact Area

Source: 2004 Coal Council Brochure. http://comdev.mt.gov/Includes/COAL/CoalMines.pdf.

7.4 SUPPORT FOR PRIVATE RAIL INFRASTRUCTURE INVESTMENT

Unlike most other modes of freight transport, railroads are largely responsible for the substantial capital investments necessary to maintain and expand their operations. A common concern among railroad companies is that the excise taxes and fees paid by motor carriers at the Federal and state levels do not fully account for their proportionate share of the costs of constructing and maintaining the nation's highway system. Moreover, the incremental costs of expanding a motor carrier's business over publicly owned and maintained roads is substantially less than a railroad faces to expand its business, since it is not only responsible for labor and rolling stock, but also for the cost to expand and maintain all aspects of its rail network.

Two recent studies have closely examined the need for and potential benefits of making substantial investments in the U.S. Freight Rail System. One of the studies, the *Freight Rail Bottom Line Report* by AASHTO⁸⁹ surmised that "... freight rail is critical to the freight transportation system, the competitiveness of many industries, and the economies of most states." The report evaluates four levels of freight rail investment, ranging from "Base Case" to "Aggressive Investment." It also asserts several potential public benefits of the freight rail system, among them:

- Transportation System Capacity and Highway Cost Savings The freight-rail system carries 16 percent of the nation's freight by tonnage, accounting for 28 percent of total ton-miles, 40 percent of intercity ton-miles, and 6 percent of freight value. If all freight-rail were shifted to trucks tomorrow, it would add 92 billion truck vehicle-miles of travel (VMT) to the highway system and cost Federal, state, and local transportation agencies an additional \$64 billion for highway improvements over the next 20 years. This \$64 billion is a conservative figure that does not include the costs of improvements to bridges, interchanges, local roads, new roads, or system enhancements. If these were included, the estimate could double.
- Economic Development and Productivity Freight rail provides shippers with cost-effective transportation, especially for heavy and bulky commodities, and can be a critical factor in retaining and attracting industries that are central to state and regional economies. If all freight-rail were shifted to trucks tomorrow, it would cost current rail shippers an additional \$69 billion this year alone or \$1.4 trillion over the next 20 years causing significant changes in business and consumer costs.
- International Trade Competitiveness Freight rail, in partnership with the trucking industry, provides intermodal transportation connecting U.S. seaports with inland producers and consumers. Freight rail also carries 16 percent of the nation's cross-border NAFTA trade. Intermodal freight-rail service is crucial to the global competitiveness of U.S. industries.
- Environmental Health and Safety Freight rail is fuel-efficient and generates less air pollution per ton-mile than trucking. Rail also is a preferred mode for hazardous materials shipments because of its positive safety record.
- Emergency Response Freight rail is vital to military mobilization and provides critically needed transportation system redundancy in national emergencies.

⁸⁹ Transportation – Invest In America: Freight Rail Bottom Line Report. American Association of State Highway and Transportation Officials (AASHTO) http://freight.transportation.org/ doc/FreightRailReport.pdf.

A second significant recent study entitled National Rail Freight Infrastructure Capacity and Investment Study was released by AAR in September 2007.90 (The study was requested by the National Surface Transportation Policy and Revenue Study Commission.) This work was the first to provide a comprehensive evaluation of long-term capacity needs along major freight rail corridors. The study assigned projected rail freight volume growth (of approximately 88 percent, according to the U.S. DOT) to more than 50,000 miles of rail segments, and assessed capacity throughout the United States. The research team concluded that by 2035, an infrastructure investment of \$148 billion will be necessary in the intervening years, with \$135 billion of the total for Class I railroads, and \$13 billion needed for short-line and regional freight railroads. The following figures summarize the freight rail corridors analyzed in the study as well as the corresponding levels of service. Level of service was calculated by a ratio of volume to capacity, similar to the approach used for roadways. Figure 7.14 displays the current rail level of service (LOS), which is only reaching levels of "At Capacity" (shown as LOSE in the following figures) or "Above Capacity" (LOSF) in a limited number of locations throughout the country; with the only area of regional congestion being the BNSF Kootenai River Main Line in the Northern Idaho Panhandle. (Note that the study does not consider Montana's UP link from Butte south to Idaho. It does include the BNSF line over which Montana Rail Link operates via a lease arrangement, but excludes some MRL branch lines.)

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⁹⁰ Association of American Railroads, September 2007.

Current Level of Service
A, B, C
Below Capacity
D
Near Capacity
Above Capacity

Figure 7.14 Current Rail Level of Service Inset: Montana

Source: National Rail Freight Infrastructure Capacity and Investment Study, September 2007, prepared for Association of American Railroads (AAR) by Cambridge Systematics, Inc.

Figure 7.15 depicts 2035 rail LOS *without* recommended infrastructure improvements, portrays a drastically different scenario. In this instance, all of Montana's primary Interstate connections to the East (Midwest) as well as to the West are at LOS F, E, or D. The figure inset highlights that the majority of the BNSF Hi-Line and Milk River main lines through the northern extent of the State in addition to the Forsyth main line serving Eastern Montana all could potentially be above capacity. It also is important to note that Montana eastbound rail shipments would likely be constrained by the LOS on the Chicago area rail lines, which currently serve as a major hub for westbound rail traffic.

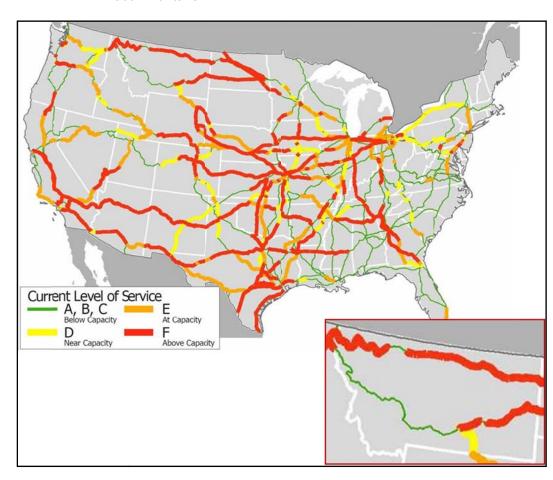


Figure 7.15 2035 Rail Level of Service *without* Improvements *Inset: Montana*

These congested lines in Montana are a result of the increase in overall national freight traffic expected by the year 2035, and are not a short-term projection of rail system congestion. The current economic downturn, and decrease in both rail and highway shipping may affect the pace of overall freight volume growth. In the long term, overall freight expansion will resume and strain the national rail network. With expected growth, Montana rail lines will experience significant congestion unless railroad capital spending expands system capacity. This AAR report suggests that meeting such capital investment needs will require some form of matching public financial assistance.

Figure 7.16 presents the AAR study's best case scenario of rail LOS with \$148 billion in capital improvements. The map shows only a few areas of concern nationally, with the lowest level of service being "E," or "at capacity." The recommended investments result in all Montana rail lines included in the study having a LOS below capacity (A, B, or C)

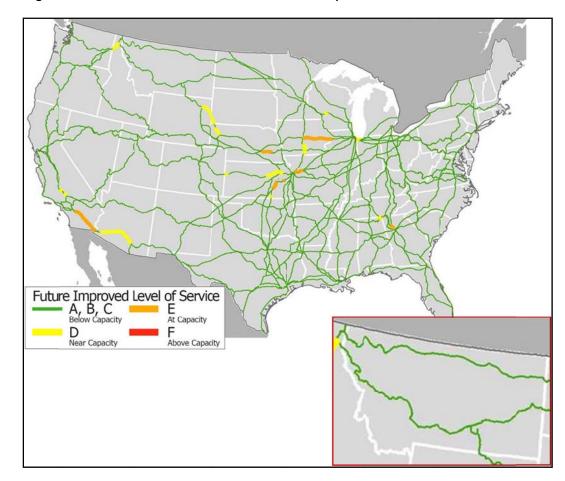


Figure 7.16 2035 Rail Level of Service with Improvements

7.5 RAILWAY-HIGHWAY CROSSINGS

According to the FRA Rail Crossing Inventory Database, there are 5,495 total rail crossings throughout Montana: 5,119 are at-grade; 151 are "railroad under"; and 225 are "railroad over" crossings. In terms of ownership, 3,094 are private crossings, 2,374 are public, and 27 are pedestrian crossings. The database also provides information regarding train movements, which shows that 57.5 percent of the crossings are on rail lines that have rail traffic of less than one train per day.

In 2007, Montana ranked 34th among all states with 18 reported rail crossing incidents out of the 2,760 total highway-rail grade crossing incidents in the United States in 2007. Texas had the largest number of incidents, 296, followed by Indiana, California, and Illinois, with 164, 162, and 158, respectively.⁹¹

⁹¹Operation Lifesaver/FRA Statistics, 2007 Highway-Rail Incidents, Casualties, and Trespass Casualties by State, 2007. Source: Federal Railroad Administration.

7.6 THE POSSIBLE EFFECTS OF ENERGY AND ENVIRONMENTAL POLICY ON RAIL MODAL SHARE

Public agencies are increasingly urged to consider transportation-specific policies to help address public objectives such as energy independence and greenhouse gas emissions. The challenge of such policy goals is that shippers consider complex logistical issues that play out in transporting goods to markets. Modal share decisions depend on basic considerations about what commodities are being shipped, how far, and the capacity of available rail, highway, or waterway networks, which in turn, determine the value the shipper assigns to logistical factors such as time sensitivity, reliability, efficiency, and price.

Increased shipment of freight by rail could have energy and environmental benefits, and as such, Federal and state policy-makers are considering strategies that encourage more rail use.

- The U.S. Environmental Protection Agency (EPA) reports that freight movements that combine truck and rail trips through intermodal service can reduce energy use and greenhouse gas (GHG) emissions by 65 percent, relative to truck only trips.⁹²
- Using data from the American Association of State Highway and Transportation Officials (AASHTO), the Association of American Railroads (AAR) reports that for each 1 percent of long-haul freight (over 500-mile haul) that moves by truck that is transferred to rail, fuel savings would be about 110 million gallons per year.⁹³
- The AAR reports that railroads are on average three or more times more fuel efficient than trucks.
- In 1980, railroads consumed 589 BTUs per revenue ton-mile of freight, and in 2006 that figure had decreased 44 percent to 328 BTUs per revenue ton-mile.94
- The Bureau of Transportation Statistics reports that in 2005, railroad locomotives accounted for 50.3 million short tons of carbon dioxide emissions, compared to 384 million short tons for trucks.⁹⁵

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⁹²A Glance at Clean Freight Strategies: Intermodal Shipping, Smartway Transport Partnership, U.S. Environmental Protection Agency, published electronically at http://www.epa.gov/smartway/transport/documents/tech/intermodal-shipping.pdf.

⁹³Freight Railroads and Greenhouse Gas Emissions, June 2008, Association of American Railroads.

⁹⁴Table 4-25, 2007 National Transportation Statistics, Bureau of Transportation Statistics, Research and Innovative Technology Administration.

⁹⁵Table ES.2, 2007 Transportation Statistics Annual Report, Bureau of Transportation Statistics, Research and Innovative Technology Administration.

Rail Service and Energy Policy

The development of a national energy policy could affect rail service in three major ways:

- 1. Energy policy could offer incentives toward more energy efficiency in goods movement, which could encourage additional rail traffic;
- 2. Energy policy could affect the supplies and prices of fuels used by railroads and trucks, which could affect freight rates and modal share; and
- 3. Energy policy could influence the importance placed on domestic energy production, which might affect rail volumes of coal.

Energy Efficiency. Since railroads and motor carriers were deregulated in 1980, both the rail and trucking industries have changed dramatically, as has the logistics and freight business. Table 7.3 explains that these changes have led to significant and similar increases in total ton-miles of freight for both trucks and railroads, a much larger increase in truck vehicle miles traveled than rail miles (train miles and car miles). The differences in volume and traffic result in much different impacts on fuel consumption, as combination truck fuel consumption is eight times as much as rail, and has grown by 87 percent, while rail fuel use has increased by only 5 percent. This demonstrates that rail is a more fuel efficient means of carrying freight. A national energy policy that encourages increased fuel efficiency in the transport sector might do well to offer incentives to encourage more shipments of freight via rail.

Table 7.3 Fuel Efficiency Measures, Rail and Truck 1980 to 2005

	1980	2005	Percent Difference					
Vehicle Miles (Millions)								
Single Truck (two-axle, six wheel+)	39,813	78,496	97%					
Combination Trucks	68,678	144,028	110%					
Total Trucks	108,491	222,524	105%					
Rail (Class I Train Miles)	428	548	28%					
Rail (Class I Car Miles)	29,277	37,712	29%					
Ton-Miles of Freight (Millions)								
Truck	629,675	1,291,515	105%					
Class I Freight Rail	932,000	1,733,777	86%					
Gallons of Diesel Fuel (Millions)								
Single Truck (two-axle/six wheel+)	6,923	9,042	31%					
Combination Trucks	13,037	24,411	87%					
Total Trucks	19,960	33,453	68%					
Class 1 Freight Rail	3,904	4,098	5%					

Source: Tables 1-31, 1-46b, 4-5, 2007 National Transportation Statistics, Bureau of Transportation Statistics, Research and Innovative Technology Administration.

Energy Prices. The trucking and rail industries have different systems of fuel purchasing and distribution, as well as different mechanisms for passing these costs on to shippers. Both railroads and trucking firms have been faced with volatile (and generally increasing) diesel costs. Figure 7.17 shows monthly diesel fuel cost averages for the United States and the Rocky Mountain region for the decade ending mid-2008. The volatility of diesel prices is evident in this chart. Regional prices closely follow national prices and have been slightly higher in most periods.

Cents per Gallon

500

U.S. Diesel Retail Sales by All Sellers

Rocky Mountain Diesel Retail Sales by All Sellers

400

350

200

150

100

50

Figure 7.17 Number 2 Diesel Costs, Rocky Mountains and U.S. 1998 to 2008

Source: U.S. Department of Energy, Energy Information Administration (EIA).

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Western railroads like BNSF and UP purchase fuel in sufficient volume to enable them to hedge fuel costs using financial instruments, similar to the commercial aviation industry. Larger railroads can smooth some of their fuel cost spikes and gain competitive advantage over trucking firms that purchase diesel on a retail basis. Future energy policy could consider supplies and prices of fuel for the railroad industry.

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2008

Coal Production. Notwithstanding the environmental implications of the current national network of coal-fired electric generating plants or future plants, it may be in Montana's economic interests to continue to pursue coal production in current mines and in future sites such as the Otter Creek coal beds mentioned in Section 3.0 of this report (discussion of the proposed Tongue River Railroad). Coal production could preserve or expand direct and indirect jobs in extraction/

transportation of the coal, and increase state revenues through the severance tax or royalties from extraction on state-owned lands. Continued coal shipments will provide revenues that contribute to railroads maintaining their Montana infrastructure.

Rail Service and Environmental Policy

Governor Brian Schweitzer, in a letter dated December 13, 2005, directed the Montana Department of Environmental Quality (MDEQ) to establish the Climate Change Advisory Committee (CCAC). The CCAC evaluated state-level greenhouse gas (GHG) reduction opportunities in various sectors of Montana's economy to implement the Governor's charge to identify ways to "save money, conserve energy, and bolster the Montana economy." The CCAC's report was published November 2007.96

According to the report, transportation by all modes is Montana's single largest contributor to GHG emission, accounting for about 20 percent of emissions annually. Two of the report's transportation-related recommendations have particular applicability to railroads: 1) reducing idling time of locomotives by 50 percent by 2020; and 2) increasing intermodal rail shipments to reduce truck GHG emissions.

The report recommends that locomotive idling be reduced by 50 percent. The State could authorize local governments to enact ordinances to limit locomotive idling. This primarily concerns switching operations at six major rail yards in the State.⁹⁷ (The report estimates that total fuel use in these yards could be reduced by 50 percent, which is the basis for GHG emission reductions. The report does not necessarily reference any studies that estimate the percentage of locomotive fuel use in switching operations applicable to the time spent idling.)

New locomotive air quality standards issued by the U.S. EPA in 2008 will require increased use of idling engine cut off technology to automatically power down the engine or adopt other mechanisms that reduce the amount of engine capacity in use. However, the EPA reports that idling reduction standards are a matter for state and local government regulation.

Montana Climate Change Action Plan: Final Report of the Governor's Climate Change Advisory Committee, Montana Department of Environmental Quality, November 2007, published at http://deq.mt.gov/ClimateChange/Plan.asp.

⁹⁷According to the report, Lewis and Clark County have an idling ordinance that applies to motor carriers and railroads, limiting idling to no more than 2 hours per 12-hour period.

⁹⁸ Final Rule: Control of Emissions of Air Pollution from Locomotives and Marine Compression-Ignition Engines Less Than 30 Liters per Cylinder, 40 CFR Sections 9, 85, et.al., June 2008, Environmental Protection Agency.

The U.S. EPA adopted a comprehensive regulation on locomotive and marine diesel engine air quality in 2008. These regulations call for new lower emission locomotives in 2009 (Tier 3), ultralow sulfur diesel fuel in 2012 (a separate regulation), and Tier 4 engines in 2015. Tier 4 locomotives will reduce diesel particulate matter by 90 percent compared to 2007 Tier 2 locomotives and reduced nitrogen oxide by 80 percent. These reductions in locomotive emissions will take place over time after 2015, as the locomotive fleet will take time to reach engine replacement requirements or new locomotive purchase. However, this means that rail-related GHG emissions are likely to be reduced through the application of this national regulation.

The report also recommends increasing rail intermodal shipments to reduce truck traffic and resulting emissions. It states:

"Transportation of freight by railroad generally results in less fuel use and GHG emissions than transportation by truck. The best candidates for diversion from truck to rail are commodities that can move by intermodal rail transportation, which involves shipping containers or truck trailers placed on rail flatcars. This option would encourage the expansion of intermodal rail service for Montana shippers. In addition, the State would strive to increase the competitiveness of rail rates for all Montana shippers."

The CCAC report referenced MDT's intermodal research project that was in progress at the time. It was expected that the results of MDT's intermodal research would identify actions to help reestablish intermodal rail service for Montana. The research was completed and is discussed in Section 7.2 of this document.⁹⁹

The CCAC report also makes a series of recommendations concerning the fuel mix for electric generation in the State (requiring more renewable energy sources and less use of coal), increased fuel efficiency, and carbon reduction strategies such as carbon sequestration. State and national attention to reduce reliance on coal could, if implemented, lower demand for Montana's coal and affect shipments by rail from the State.

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⁹⁹The findings suggest that targets in the CCAC report (six 100-car intermodal trains per week from Shelby to Seattle/Tacoma at 400 TEUs per train) do not match the market potential identified in the 2008 Prime Focus/Western Transportation Institute report (4,000 TEUs per year from Shelby).

7.7 CONCLUSIONS

The 2004 R.L. Banks Rail Competition Study found that limited rail competition is only one of a series of factors that foster the dual problems of high rates and limited service for general freight, agricultural, and intermodal rail shippers in Montana. Other factors include:

- Montana's relatively small transportation market;
- Geographic position, and distance from the more robust markets on the West Coast and in the Midwest;
- Staggers Rail Act emphasis on financial health of the railroads, and interpretation of that law by the ICC and the STB; and
- Limited transportation options in Montana other than rail (distance to barge option and long trucking distances).

These factors have been borne out in other national studies of rail competition. Since three of these four factors lie beyond the influence of public policy, much of the efforts of Montana shippers and elected officials to expand service or reduce rail rates have focused on legal remedies through new laws or changing interpretation of laws by Federal regulators. Changes in Federal law may be in the offing in the U.S. Congress, which may lead to different approaches for Montana shippers to challenge rates or seek competitive service options.

A number of major issues also could affect railroad transportation in Montana:

- New Federal surface transportation program authorization could expand funding and flexibility for states to fund freight rail improvements or allow incentives for railroads to expand capacity to meet goods movement trends;
- New Federal climate change or environmental laws could lead to modal shifts of freight from truck to rail, and could impact long-term prospects for some rail commodities such as coal; and
- New Federal energy policy could affect the rail locomotive fleet, or changes in fuel prices could lead to long-term changes in goods movement away from a global sourcing economy and accompanying lengths of movements by rail and truck.