

Local and Regional Rail Freight Transport

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At the dawn of the new millennium, rail freight transportation in the United States is experiencing a remarkable renaissance. During the middle of the 20th century, the railroad industry was in a decline caused by factors including modal competition, economic regulation, and changes in the transportation marketplace. The freight railroad industry's revival during the final two decades of the century is an amazing success story. Probably the major contributor to this phenomenon has been economic deregulation that permitted railroads to offer innovative services and to price them competitively. Deregulation also allowed large railroad companies to exit markets that they could not serve efficiently and to dispose of underperforming assets. The result has been a tremendous growth in customer-oriented, entrepreneurially driven local and regional railroads.

Local and regional railroads are defined in contrast to the large railroad companies covering multiple states or regions. The Association of American Railroads (AAR) defines railroads with gross annual revenues of \$255.9 million or more as Class I. Railroads with annual gross revenues ranging from \$40 million to \$255.9 million are termed regional. All other railroads, currently numbering over 500, are classified as local. The six Class I freight railroads dominate the industry, earning over 91 percent of the freight revenue, operating about 73 percent of the route-miles, and employing 89 percent of the industry labor force. In contrast, local and regional railroads earn less than 9 percent of railroad freight revenues while operating over 45,000 route-miles of track, or 27 percent of the U.S. total. The local railroads represent 27,000 of these route-miles.

Although regional and local railroads lack the geographic scope and level of operations of the Class I railroads, they nevertheless play an extremely important role within their areas of service. The vitality of the industry is considered critical to the economic health of many communities. Rail freight service is frequently necessary to sustain existing industries, and industrial recruitment can be severely hindered when the rail option is removed. Substituting trucks for local railroad service may severely affect highway traffic flow, pavements and bridges, and environmental quality. In addition, small railroads collectively feed significant traffic to the Class I railroads. This paper will discuss these and other issues that represent the industry's challenges and opportunities for the 21st century.

MARKETPLACE

To survive and prosper, local and regional railroads cannot just maintain but must increase the market for railroad transportation—a challenge for the upcoming century. Most trackage operated by small railroads has a relatively light traffic density. The scarcity of traffic, or traffic to maintain an adequate revenue base to cover expenses, is typically the impetus for the larger railroad companies to exit markets. The exit process is often

preceded by service degradation that alienates existing and potential on-line shippers. Much remaining rail traffic consists of relatively low-value (and low-revenue) bulk commodities. Once new logistics patterns have been established, winning customers back to rail service can be difficult. With knowledge of local conditions and an orientation to customer service, small railroads have been highly successful in rebuilding traffic levels. Innovative service offerings, perhaps involving value-added functions such as warehousing, transloading, and just-in-time delivery that firmly integrate the small railroad into the logistics pipeline, might help to restore additional traffic.

A second challenge facing small railroads relates to regional and national economic shifts. The extractive and manufacturing industries that generated high volumes of rail traffic in past years have been giving way to a service-oriented economy increasingly focused on a global marketplace. Many companies in the service sector are not traditional rail freight customers. Small railroads, with their limited geographic scope, are extremely sensitive to such shifts. These companies will have to be integrated increasingly into the industrial recruitment process to ensure the location of new, high-revenue customers alongside their tracks. The local railroad must partner with the Class I railroads with which it connects; without Class I cooperation, the smaller company is limited in its responses to the market.

FINANCE AND INVESTMENT NEEDS

Throughout much of the 20th century, U.S. railroads were unable to attract sufficient capital investment or to generate funds internally to meet needs. Maintenance and capital investments often were deferred on the lighter density portions of the physical plant, which frequently were transferred to small carriers. A key challenge for new operators is obtaining the funding necessary to replace and upgrade both the physical plant and the equipment to meet 21st century needs.

Fixed Plant

Small railroads often inherit physical infrastructure that has seen years of inadequate investment. The results are manifested in substandard alignments, an inadequate track structure, weak bridges, and deferred maintenance. Safe, economical, and reliable operations depend on the carrier's ability to remedy these conditions. The situation is made more critical by the industry trend toward larger equipment with heavier axle loads. To remain viable, many small railroads must handle this equipment, but the cost of upgrading track and bridges is formidable. As the century begins, small carriers will be looking for cost-effective ways to maintain and improve their infrastructure. Research should be directed at developing a track structure suitable for the density levels of the smaller carriers but still capable of supporting modern loads. Innovative financing also will be important, because funding such improvements on a cash-flow basis is not possible for many small carriers, and commercial banks are reluctant to provide long-term loans.

Equipment

Obtaining equipment to meet service needs will continue to be an issue with small railroads.

Freight Cars

Small railroads often need to obtain freight cars to service major on-line customers. Yet for reasons including rising car prices, demands for specialization, long life cycles in the face

of uncertain demand, and changes in rental fees, assessing the economic risk of freight car investments is increasingly difficult. Given the risk, lenders are reluctant to finance equipment for small railroads without guarantees from a third party, such as the customer or a Class I partner. This issue will be a challenge for small railroads, which must ensure car availability—perhaps by reducing the risk factors affecting financing.

Locomotives

The motive power market will be a concern for small railroads. The two dominant locomotive manufacturers in North America are concentrating development on advanced, high-horsepower, six-axle, diesel-electric locomotives. For many reasons, these units are not practical for most local railroads. However, production of suitable low- and medium-horsepower locomotives essentially has ceased. Today, small carriers rely on secondhand locomotives made surplus by the large carriers. Even when rebuilt, these locomotives lack many desirable modern features, are less fuel-efficient than today's locomotives, face potential environmental compliance problems, and ultimately will be difficult to maintain. As the locomotives age, the need for affordable new replacements will become acute.

RELATIONSHIPS WITH CLASS I RAILROADS

Since the railroad network is an integrated system, and few small carriers can survive without interchanging traffic with larger Class I railroads, cooperation between large and small railroads is extremely important. The relationships between small railroads and their Class I connections are dynamic and will continue to evolve.

Merger Impacts

The merging of railroads into Class I megasystems has been a notable trend in the late 20th century. These mergers have helped fuel the growth of the small railroad industry. One important advantage of a merger is the elimination of overlapping track, much of which has been sold to shortline operators. In addition, mergers often prompt the sale of underperforming assets to raise cash, again with small railroads as the beneficiaries.

With only six Class I freight railroads remaining, additional major merger opportunities are limited. If mergers conclude with perhaps two or three large railroads serving North America, the implications for small railroads are mixed. Opportunities to eliminate parallel facilities in upcoming mergers are much more limited than previously. With the reduction in labor costs due to liberalized work rules, Class I railroads can operate light-density lines much more economically. This makes unlikely the sales of sizable amounts of additional track, which have assisted the growth of the small railroad industry. Nonetheless, continued operation of light-density lines by Class I carriers meets the objective of preserving rail service.

Partnerships

The relationship between a small railroad and its Class I connections is critical. Class I railroads perform the long-haul movement, while small railroads typically handle local pickup or delivery. Small railroads are supported by their Class I connections in various other ways, including car supply, billing, and marketing. Critical issues in this relationship include equipment, rate divisions, and the impact of the Class I carrier's performance on the small railroad's service. As mergers reduce the number of large railroads, many shortlines are left with fewer connecting carriers, and increasingly, with only a single connecting carrier. In these cases, the viability of the small company depends greatly on its

relationship with the Class I carrier. If rate and service problems develop, connections with other Class I carriers give a small railroad more flexibility to respond.

The relationships between small railroads and the Class I carriers will be significant as the merger movement reaches its natural conclusion. On the positive side, in September 1998, AAR and the American Short Line and Regional Railroad Association jointly signed the Railroad Industry Agreement (RIA). This pact addresses many issues related to the working relationships between large and small railroads, including car supply, service quality, and access.

ISSUES OF MODAL COMPETITION

Small railroads are more sensitive than Class I carriers to competition from other modes, including railroad intermodal service. With a typically small geographic scope, a limited customer base, dependence on Class I carriers, and modest financial resources, small railroads face difficulty in addressing competition. In addition, their principal competitors—trucks and barges—benefit from a publicly financed infrastructure. If small railroads are to prosper in the 21st century, they will have to meet these competitive challenges.

Increased Truck Sizes and Weights

The trend toward increased truck sizes and weights affects all railroads, but probably the smaller railroads to a greater degree. With their short-haul distances, small railroads are vulnerable to traffic diversion to trucks. Trucks can haul directly from the customer location to an end-user destination, especially when the overall distance is within a few hundred miles. Alternatively, trucks can haul between a customer location and a transload facility on a Class I railroad, bypassing the small railroad. A public policy allowing increased truck sizes and weights makes both long-haul trucking and transloading more attractive, eroding traffic on many small railroads. While possibly benefiting shippers, the movement of traffic to trucks can have adverse infrastructure and environmental impacts.

Intermodal

The trend toward increased railroad intermodal traffic has been steady since the early 1980s, and growth trends should continue into the new century—a success story for the industry as a whole. For small railroads, however, the positive impacts of intermodalism are difficult to quantify. Efficient intermodal transportation requires high-volume mechanized terminals and long haul distances. Local railroads are seldom in a position to provide either, though the major regional railroads might be. At any rate, the intermodal boom has not included most small railroads and it ultimately might harm them. Intermodal service relies on motor carriers for the pickup and delivery portion of the haul, capturing freight that otherwise might be handled by the small railroad as carload service. Increased size and weight limits make trucking even more attractive in this role.

Traditional railroad-highway trailer or container on flatcar service is not the only threat to the small railroad traffic base. Bulk intermodal transload centers, often established by or operated in conjunction with a Class I railroad, are increasing threats to small railroads. The transload center receives carload quantities of a product such as lumber, wood chips, aggregates, coal, plastic pellets, or chemicals by rail, with final delivery to the customer by truck. Such centers typically offer additional services such as storage, blending, and repackaging, which make them attractive to customers and difficult for the small railroad

to compete with. Clearly, developing a niche in the intermodal marketplace will be important to the long-term viability of small railroads.

PUBLIC SECTOR INTERACTION

The relationship of public sector agencies with small railroads is important. In the next century, the public sector must continue these relationships and incorporate small railroads into a multimodal planning process.

Investment and Financial Assistance

While most small railroads are private businesses, the movement to maintain railroad service on light-density lines typically has a high degree of participation by public sector interests at the state and local levels. Public sector agencies have many ways of assisting small railroads, including tax relief; equity investment; loans or subsidies for capital, maintenance, and operating expenses; purchase and leaseback of rights-of-way; and purchase of rolling stock. All of these options are important to small railroads with their limited financial resources and typically thin traffic bases. A challenge for these railroads and their customers in the next century will demonstrate the benefits of public sector assistance and working to keep assistance programs available.

Regulatory Impacts

Government regulations affecting railroads fall into two categories: safety and economic. Each type of regulation shapes the manner in which the railroad industry operates. Like most small businesses, local and regional railroads are affected disproportionately by regulation compared with the Class I railroads.

Economic Regulation

A large body of economic regulation affecting railroad ratemaking, marketplace entry and exit, and railroad customer business relationships was eliminated during the 1980s. This revived the industry and restored it to the highest degree of financial prosperity in many years. Railroads still face threats of economic regulation, however, as interest groups lobby for renewed controls. The local and regional railroad industry has experienced tremendous growth since economic deregulation. This trend might well be halted by renewed regulation. Even worse, the effect of regulatory constraints on the ability of railroads large and small to price in response to competition could be harmful to their economic health. Clearly, the industry faces a challenge in retaining the economic freedoms regained during the 20th century.

Open access is a controversial concept advocated by many who believe that competition in the railroad industry is disappearing as mergers reduce the number of carriers. Under open access, a track owner would be forced to provide competing railroads with access to customers on the owner's track. In theory, this would ensure market competition without requiring each carrier to construct or operate a separate track. Through various types of agreements, railroad companies already are doing this in selected areas. Railroad executives, however, strongly oppose opening facilities to competitors by regulatory mandate. RIA addresses issues relating to service and connections, demonstrating that railroads are capable of developing workable solutions on their own. However, as concerns about railroad service quality, competition, and market shifts continue in the dawning century, mandated open access will have strong proponents outside the railroad industry. To ensure that its interests are protected, the local and

regional railroad industry must continue to monitor and study the open access movement and ensure that agreements like RIA are successful.

Safety Regulation

In contrast to economic regulation, railroad safety regulation is increasing. This trend will continue, as in other industries. With limited staff and resources, small railroads typically are affected more by regulatory compliance than the Class I carriers are. In some cases, compliance is burdensome because the regulations do not reflect the small-railroad operating environment. The voice of the industry must be heard by regulators and elected officials to ensure that the regulatory environment promotes safety while remaining sensitive to the industry's unique needs.

Planning

Public sector planners must recognize and consider the role small railroads play in local and regional transportation systems. Despite the emphasis on freight and intermodalism in recent transportation laws, many planners still have only a hazy understanding of the critical role of freight transportation and of railroads in particular. The industry must remedy this situation in the new century. A balanced public transportation policy must include rail transportation. To gain maximum credibility and public sector support, the planning process also must consider the role of small railroads and must establish a continuing dialogue among the railroads, their customers, and planners.

Corridors in which rail service cannot be maintained should be preserved for future use; if the tracks are removed, the option should remain to restore rail transportation. Planners in larger urban areas also should consider rail rights-of-way as corridors for future transit, either for light rail or conventional rail. With suitable physical plant and operating practices, passenger and freight service can coexist. Careful planning and adequate investment are required, however, to provide satisfactory service levels for both customer bases and to maintain service despite possible increases in capacity needs.

CONCLUSIONS

The future for local and regional freight railroads is far from clear as the new millennium begins. The industry has many opportunities for growth, but challenges are also formidable. Clearly, small railroads offer a cost-effective, customer-oriented product for shippers. This product is helping to return traffic wherever there is latent demand for rail service. However, to prosper in the next century, the industry must successfully address changes in the economy that affect the demand for railroad service, obtain financing to maintain and improve infrastructure, and learn to operate in an increasingly regulated environment. To do this, small railroads must become tightly integrated into the logistics systems of their customers, maintain close partnerships with Class I railroads, and keep a high profile in the public sector. If these objectives can be accomplished, small railroads likely will be serving customers efficiently as the 22nd century begins.

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