Comprehensive Rail Freight Study and State Rail Plan

Volume I

2003 Pennsylvania State Rail Plan

Pennsylvania Department of Transportation

R.L. Banks & Associates, Inc.
Washington, DC

And

Linare Consulting
Pittsburgh, PA

June 16, 2003

Volume I

State Rail Plan

Preface

This is Volume I of the 2003 update of the Commonwealth's legislatively mandated Comprehensive Rail Freight Study and State Rail Plan. The entire study is published in two volumes, which include discussion and results of study tasks as indicated below.

Volume I	State Rail Plan
Subtask A-2	Line by line traffic census Core or strategic rail lines At risk rail lines
Subtask A-3	Key issues
Subtask B-1	Survey of local planning organizations (conclusions)
Task C	Funding Options
Subtask D-1	State rail plan summary descriptions of rail service

Volume II	Additional Rail Study Results
Subtask A-1	Level of maintenance and capital expenditures
Subtask A-2	Impacts of At-grade highway/railroad crossings and heavier railcars
Subtask B-1	Survey of local planning organizations
Subtask B-2	Review freight studies

In addition, Subtask D-2 updated the existing statewide rail network data base information in the Department's Geographic Information Systems (GIS) data network.

Comprehensive Rail Freight Study and State Rail Plan

Volume I

2003 Pennsylvania State Rail Plan

Table of Contents

	Page
Executive Summary and Conclusions	ES-1
Introduction	1
Background	1
Objectives of Pennsylvania's Rail Freight Assistance Program	5
Rail Planning and Coordination	5
Description of State's Railroad Network	7
Key Issues	39
Funding Options	63

Figures

Freight Railroad Traffic in Pennsylvania		2

Tables

1	Traffic Density, 286,000-pound Railcar Capability and Number of Bridges on Pennsylvania's Rail Lines	8
2	Pennsylvania Rail Lines with Annual Traffic Less than One Million Gross Tons	20
3	Pennsylvania State Investment in Rail Freight Infrastructure	41
4	Approximate Future Annual Infrastructure Costs	71

Pennsylvania 2003 State Rail Plan

Executive Summary

Purpose. This is a comprehensive update of Pennsylvania's 1996 State Rail Plan, complying with Federal Railroad Administration requirements, and with Pennsylvania's Rail Freight Preservation and Improvement Act of 1984 as amended.

Changes Since Last State Rail Plan. Since 1996 there have been significant changes in the Commonwealth's rail system and in federal rail programs. For example, the acquisition of Conrail by CSX and Norfolk Southern was approved by the Surface Transportation Board on June 8, 1998, and one year later operations began under the new owners. There also have been a number of changes in Pennsylvania's smaller railroads since 1996, not the least of which were those resulting from the Conrail line sale program that was underway but halted with the Conrail split. The federal Local Rail Freight Assistance program has not been funded since 1995.

Pennsylvania's Rail Freight Preservation and Improvement Program. The purpose of Pennsylvania's Rail Freight Preservation and Improvement Act is to preserve essential rail freight service where economically feasible, and stimulate economic development through the generation of new or expanded rail freight service, by making grants, loans or other assistance available to qualified applicants.

Coordination. Formulation of this State Rail Plan Update included coordination with each of Pennsylvania's railroads; Pennsylvania's Metropolitan Planning Organizations, Local Development Districts and Public Rail Authorities; and other interested parties.

Pennsylvania's Rail System. Pennsylvania has 5,145 miles of railroad operated, and 69 freight railroads, more railroads than any other state. Commodities originating and terminating in Pennsylvania and carried by rail are dominated by coal (62 percent of originating tons, and 39 percent of terminating tons) and also include primary metal products, petroleum, chemicals and food products.

Core or Strategic Rail Lines. Pennsylvania's core or strategic rail lines include some of the highest volume in the nation, such as the former Pennsylvania Railroad main line--now Norfolk Southern--connecting Philadelphia, Harrisburg and Pittsburgh, and extending ultimately to Chicago. This line carries over 120 million gross tons (MGT) annually. Other very highly-trafficked rail lines in the Keystone State include

CSX's east-west line through Erie, at 113 MGT; CSX's line through Connellsville, Pittsburgh and New Castle, 100 MGT; and Norfolk Southern's Reading-Bethlehem-Easton-New Jersey line, 100 MGT. Another important trunk line is Amtrak's Northeast Corridor, a portion of which passes through southeast Pennsylvania, including Philadelphia. Some freight is moved on this predominantly passenger rail corridor.

At Risk Rail Lines. At the other end of the spectrum, there are a number of rail lines in Pennsylvania considered "at risk" because of their low traffic density. By "at risk" is meant that these low traffic density lines may be abandoned because traffic revenue may not be sufficient to maintain the line. It is the rail lines at this end of the spectrum which are normally the object of publicly-funded rail preservation efforts where it is deemed that the rail line is capable of growth and development and where continuation of rail service provides public benefits. With annual traffic less than five MGT, 124 Pennsylvania rail lines are considered somewhat at risk of abandonment. Of these 124, 96 rail line are considered especially at risk because they carry annual traffic on less than one MGT.

Key Issues. This State Rail Plan addresses key issues facing the railroad industry over the coming five years, and discusses specific needs, challenges and opportunities specifically relevant to the Commonwealth of Pennsylvania's transportation system, and ways by which Pennsylvania can influence the optimum development and use of its freight rail system in a manner which best serves the interest of Pennsylvania's citizens. The following issues are addressed:

- Pennsylvania's rail investments and public funding
- Class I railroads
- Small railroads
- Mitigation of truck traffic growth
- Passenger rail: shared use of track with freight rail
- The expected growth in freight and passenger traffic

Funding Sources. Federal, state and other potential funding sources are described. In general, cessation of federal Local Rail Freight Assistance program funding in 1996 means that states and others must "take up the slack" with regard to rail branch line preservation.

Conclusions. The following summarizes the most significant conclusions of this 2003 State Rail Plan.

1. Pennsylvania's successful freight rail program is a most valuable resource, and it should be maintained and developed. Pennsylvania's railroads require an annual expenditure of approximately $135 million to keep track and bridges in a state of good repair. The railroads themselves provide

the great majority of the funds to do this. It is the low traffic density lines--those struggling to survive--that sometimes need assistance. Pennsylvania has an excellent program to do this, but Pennsylvania's railroads as well as Metropolitan Planning Organizations, Local Development Districts and Public Rail Authorities have expressed the view that more funding is required. In recognition of the end of federal Local Rail Freight Assistance, the predicted immense increase in surface transportation volumes, and the benefits which a robust rail preservation program has brought, Pennsylvania should consider raising its rail freight assistance funding levels.

2. Many of Pennsylvania's small railroads require upgrade of infrastructure (track and bridges) in order to accommodate 286,000-pound railcars, which recently became the new interline standard on the railroad system of the United States. Given that some of these small railroads are hard put just to maintain existing infrastructure, they may need state funding assistance in order to be competitive in carrying the heavier railcars.

3. At-grade highway-railroad crossings (grade crossings) are problematic for railroads, especially small railroads, which view maintenance of traffic control devices and crossing surfaces as a financial burden, especially where crossing wear and tear is a function of heavy highway use, as opposed to rail use. Pennsylvania should consider additional assistance in this area.

4. The U.S. Department of Transportation predicts an approximate doubling of surface transportation volume over the coming 20 years. This prediction, expected to apply to Pennsylvania, coupled with alarming increases of vehicle-miles-traveled over the past 25 years (people are driving much more) strongly urges exploration of all means to make surface transportation more efficient, to include rail transportation. Pennsylvania should examine rail "choke points" and other hindrances to efficient flow, as well as opportunities to support truck-rail intermodal facilities, double-stack clearance where appropriate, and other projects which would improve rail and truck-rail capacity.

5. Because of the importance of this last issue, as well as the cumulative effect of the previous three issues, it may be appropriate that PENNDOT recommend formation of a special task force under the aegis of the Governor’s RFAC specifically to address rail’s contribution in mitigating the anticipated 20-year congestion issue. The agenda of this task force, which should include representatives of the railroads, planning organizations and appropriate PENNDOT agencies, could include identification of the most cost-effective projects to enhance rail flows and stimulate more use of rail, including rail intermodal; determination of public-private cost sharing

responsibilities; and recommendations for rail solutions in a report to the Legislature.

6. Initiatives at the federal level have important potential consequences for Pennsylvania. The American Association of State Highway and Transportation Officials (AASHTO) "Freight-Rail Bottom Line Report", released January 2003, urges a public-policy-driven expansion of the freight-rail system supported by public sector investment, if the system is to maintain its share of the forecast tonnage and help relieve pressure on the highway system. Without coordinated public and private action, AASHTO says, congestion and capacity constraints will weaken the freight industry, the economy, local communities, and the environment. A number of observers have urged federal funding assistance for freight railroads, given federal funding of highways and air transportation, and the importance of rail transportation in the United States. Pennsylvania must make its views known on Capitol Hill as the U.S. Congress addresses surface transportation reauthorization this year.

Pennsylvania 2003 State Rail Plan

Introduction

This document is a comprehensive update of Pennsylvania's State Rail Plan. It complies with those Federal Railroad Administration requirements for state rail plans that are practicable, given non-funding of the federal Local Rail Freight Assistance program since 1995, and thus enables Pennsylvania to conform with federal requirements for consistency in state rail planning. Federal requirements with regard to state rail planning are contained in 49 Code of Federal Regulations (CFR) Part 266.15.

Pennsylvania has invested in preserving and improving its state railroads as a component of Pennsylvania's transportation system. Rail planning in Pennsylvania is a component of overall state transportation planning.

Background

Pennsylvania has 5,145 miles of railroad operated[1], ranking fifth in the nation in this category, and 69 railroads, more railroads than any other state. Commodities originating and terminating in Pennsylvania and carried by rail are dominated by coal (62 percent of originating tons, and 39 percent of terminating tons) and also include primary metal products, petroleum, food products and chemicals. See Figure 1. Railroads are a vital component of the Commonwealth's transportation system and important to the state's economy. Three Class I railroads[2] and four Regional Railroads[3] operate in Pennsylvania.

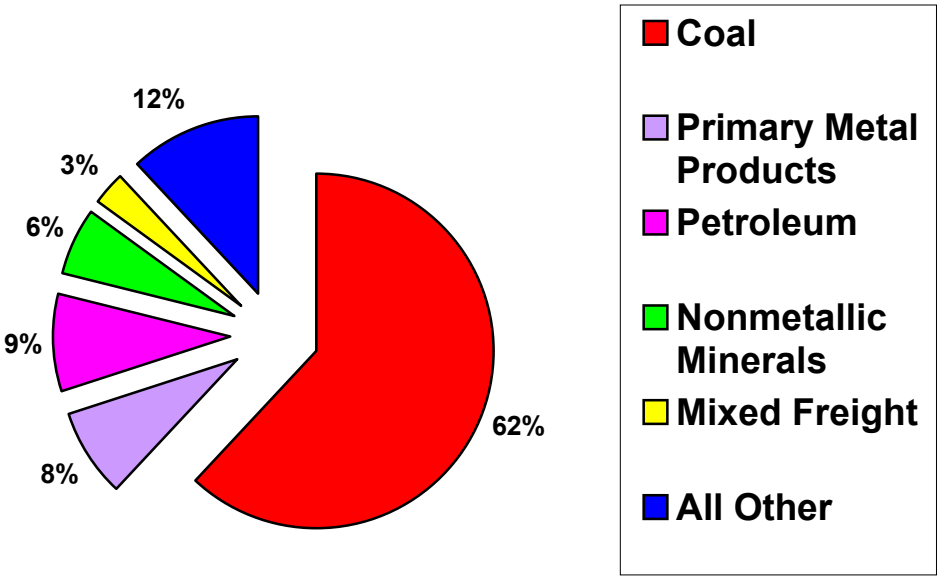
Pennsylvania is perhaps the foremost state in preservation of railroads and assistance to small railroads in maintaining rail service. In recent years, the Commonwealth has invested up to $19.5 million a year in rail freight assistance. Federal and state laws require the Department to periodically update the Comprehensive Rail Freight Study and State Rail Plan. The last update was

[1] Miles of railroad operated as reported by the Association of American Railroads.
[2] As defined by the Surface Transportation Board, a railroad with operating revenues of at least $266.7 million (in 2001; this figure is adjusted annually for inflation).
[3] A non-Class I line-haul railroad operating 350 or more miles of road and/or with revenues of at least $40 million.

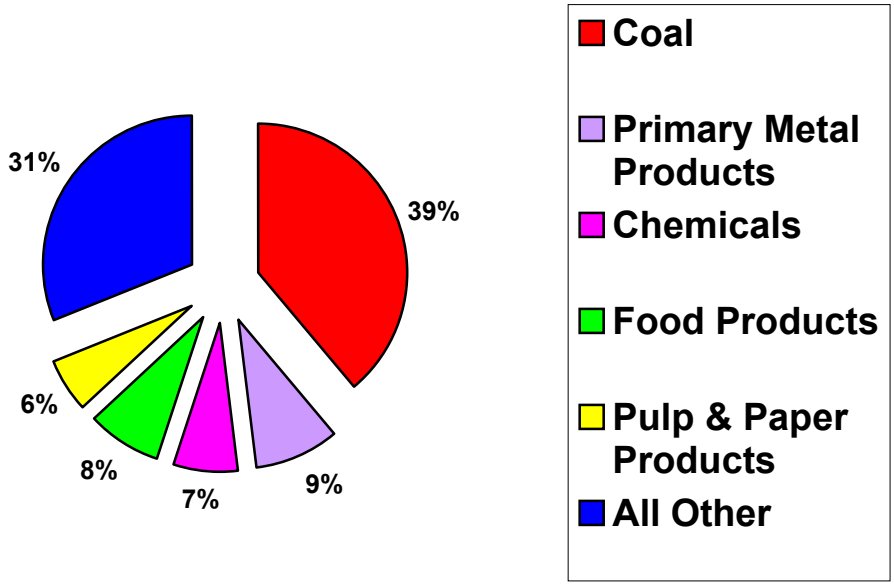
Figure 1

Freight Railroad Traffic in Pennsylvania

Pennsylvania Originated 60 Million Rail Tons in 2001



Pennsylvania Terminated 58 Million Rail Tons in 2001



Source: Association of American Railroads.

prepared in 1996. Since that time there have been significant changes in the statewide rail system and in federal rail programs. The acquisition of Conrail by CSX and Norfolk Southern was approved by the Surface Transportation Board on June 8, 1998, and one year later operations began under the new owners. The resulting operational problems experienced by both carriers presented unique challenges to virtually everyone associated with rail freight in Pennsylvania. There have been a number of changes in Pennsylvania's smaller railroads since 1996, not the least of which were those resulting from the Conrail line sale program that was underway but halted with the Conrail split.

With regard to federal rail programs, appropriation of funding for the FRA Local Rail Freight Assistance (LRFA) program ceased after 1995. The Transportation Equity Act for the 21st Century (TEA-21) became federal law in 1998, continuing many of the policies and programs which originated in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), including flexible funding, and introducing some new federal funding programs applicable to rail.

For more than 150 years, Pennsylvania has been a leader in the development and operation of freight railroads, and these have been vitally significant to the Keystone State's economy. Not only has the railroad industry had important effects on Pennsylvania's communities and industries, the Commonwealth has also been central to the manufacture of facilities and equipment for the expansion of the railroad network across the continent and beyond.

Over the last half of the 20th Century, there have been many changes, and much instability, in the railroad system of the United States and Pennsylvania, as the industry adapted to competition and changes in the structure of the American economy. During the 1970s and 1980s, parts of Pennsylvania were impacted heavily by the northeastern railroad reorganization, and by responses of railroad customers. In partnership with local communities, the Commonwealth provided a good deal of timely support for preserving railroad lines that could no longer be profitably operated by private railroad companies.

Those efforts were successful. Under PENNDOT leadership, and with the cooperation of the Legislature, the railroad industry, and regional and local interests, Pennsylvania's railroad system has come to be more stable in recent years than at any time in the last three decades.

This stability can be traced directly to PENNDOT's Rail Freight Assistance Program which has bolstered the branches of the system to an extent that few, if any, other states can match.

At the same time there continue to be profound changes which are affecting the Commonwealth's economy and the way that raw materials and industrial products

are transported. Among these are trends toward greater globalization of the national and state economies, and the trend in logistics often described as from push to pull which manifests itself in just-in-time delivery. Some observers believe that these trends favor truck transport over railroad.

On the other hand, there are a few trends which favor railroads in the decades-old competition between the two principal ground transport modes.

One undisputed fact is that intermodal transport will continue to become a larger element in the overall freight transport mix. The Department has recognized this fact in its programs and projects, including the Doublestack Clearance Improvement Project. Another trend favoring railroads is that in which modern short lines are becoming very customer- and service-oriented. Finally, there are some indications that even the Class I railroads recognize that they too must pay more attention to their customers.

While railroads are no longer the dominant mode of transportation that they were fifty years ago, they are still recognized as absolutely essential to the economic well being of many Pennsylvania communities and the Commonwealth as a whole.

In consideration of this, the PENNDOT Bureau of Rail Freight, Ports and Waterways has articulated its Mission to:

- Preserve and improve rail freight infrastructure and service.
- Promote economic development through the rail freight properties directory and the grant programs.
- Provide financial and technical assistance to railroads and businesses.
- Facilitate the integration of rail freight movement with other modes of transportation.
- Facilitate the resolution of issues between the railroads and the public.

This mission ranges across the full geographic extent of the Commonwealth and touches many spheres of its economy and citizenry. It involves interaction with public agencies and private parties which are directly or indirectly affected by Pennsylvania's railroad freight system.

To accomplish this mission, the Bureau needs factual information on the state of the railroad system of Pennsylvania.

An up-to-date Comprehensive Rail Freight Study and State Rail Plan will assist the Bureau in allocation of rail resources in accord with its vision and mission, and will improve the efficiency and level of service the Bureau and Department of Transportation provide to everyone with an interest in railroad issues.

Objectives of Pennsylvania's Rail Freight Assistance Program

The "Rail Freight Preservation & Improvement Act" (Act of 1984, P.L. 587, No. 119) empowered the Pennsylvania Department of Transportation (PENNDOT) to preserve and improve rail freight service in the Commonwealth by making grants, loans or other assistance available to qualified applicants.

The Act states that the " ... policy of the Commonwealth [is] to promote the health, safety, convenience and welfare of its inhabitants by the establishment of a rail freight policy committee and by providing, through the Department of Transportation, State financial assistance for the transportation services, systems and facilities; by the conduct of a comprehensive rail freight study of such services, systems and facilities; and through the coordination of the Commonwealth's rail freight transportation activities with Federal and local governments, transportation organizations, transportation companies and other interested groups."

Provision of State assistance for the preservation, rehabilitation and improvement of efficient and coordinated rail freight transportation services, systems and facilities was determined to be essential to solution of the problem of the Commonwealth's industries being jeopardized by deterioration or inadequate provision of rail freight transportation services within the Commonwealth. The Rail Freight Assistance Program was authorized by the Act to provide financial assistance for investment in rail freight infrastructure. The intent of the Program is to (1) preserve essential rail freight service where economically feasible, and (2) preserve or stimulate economic development through the generation of new or expanded rail freight service.

Rail Planning and Coordination

General Coordination

Every one of Pennsylvania's railroads was contacted in order to obtain the data included in the State Rail Plan Update, and each railroad was invited to provide comments and recommendations with regard to key issues and other matters. In many instances there were several contacts with individual railroads to insure development of accurate information.

Additionally, Pennsylvania's Metropolitan Planning Organizations, Local Development Districts and Public Rail Authorities were surveyed to determine the level and extent of rail freight planning taking place in each region.

Finally, coordination was effected with others interested in Pennsylvania railroads, in order to develop a comprehensive report.

Rail Freight Planning Survey

As stated above, Pennsylvania's Metropolitan Planning Organizations, Local Development Districts and Public Rail Authorities were surveyed to determine the level and extent of rail freight planning taking place. Following analysis of the survey, the following conclusions were made.

There is widespread awareness of the role of rail freight in the economies of the regions, but little actual rail freight planning, among the Commonwealth's regional planning agencies. This does not seem to be of concern to the agencies surveyed.

The Department's rail freight programs are widely perceived to be effective, lacking only sufficient funding. Furthermore, there is widespread appreciation for the efforts of Bureau staff in managing the programs. Many respondents stated the need for additional Rail Freight Assistance Program (RFAP) funding.

Virtually every county respondent made one or more comments on grade crossing or grade separation projects.

The responses suggest the opportunity for a greater degree of freight and railroad-related planning. Also, even though Pennsylvania probably does this better than any other state, there appears to be yet more room for seeking opportunities to use existing railroads to an even greater extent. In other words, it appears that some counties and planning organizations could pay more attention to development of railroads and rail-using industry, and make more use of the help available from PENNDOT in this regard (e.g., RFAP funding, Rail Freight Properties Directory).

On the other hand, and based upon responses to this survey, some planning and other organizations clearly stand out above the others in their vigorous rail-related activity, for example, the Delaware Valley Regional Planning Commission (DVRPC), Lackawanna County, Lancaster County, Luzerne County, Lycoming County Planning Commission, Monroe County Rail Authority, SEDA-COG, Southwest Pennsylvania Commission and the Westermoreland County Industrial Development Corporation.

In summary, given the predicted expansion of surface transportation volumes, and certain meritorious exceptions aside, Pennsylvania's regional planning organizations, local development districts and public rail authorities should give more attention to freight planning, including rail freight. There is a relatively low

level or in many cases absence of freight planning at the regional level, and this needs to be addressed.

Description of State's Railroad Network

Pennsylvania has 5,145 miles of railroad operated[4], and 69 freight railroads, more railroads than any other state. Commodities originating and terminating in Pennsylvania and carried by rail are dominated by coal (62 percent of originating tons, and 39 percent of terminating tons) and also include primary metal products, petroleum, chemicals and food products.[5] See Figure 1. Railroads are a vital component of the Commonwealth's transportation system and very important to the state's economy.

The most readily available and reliable data available to illustrate traffic on Pennsylvania's rail lines is tonnage data expressed in millions of gross tons (which includes weight of locomotives and cars). Table 1 is an alphabetical listing of Pennsylvania's railroads showing traffic density (MGT), 286,000-pound railcar capability (286K) and number of railroad bridges.

Core or Strategic Rail Lines

The most important rail freight corridors in Pennsylvania are described below, by railroad. These are the Commonwealth's core/strategic rail freight corridors in that they carry the greatest traffic volumes, and are therefore important to the state (and to other states).

Norfolk Southern

Philadelphia-Harrisburg-Pittsburgh-Ohio (Table 1, numbers 85, 95 and101). The former Pennsylvania Railroad (and Conrail) Main Line ultimately reaches Chicago. In Pennsylvania, the segment with the heaviest volume of traffic on this line carries over 120 million gross tons (MGT) annually. It is one of the most highly trafficked rail lines in the United States, connecting the ports and metropolitan areas of the Northeast (e.g., Philadelphia, New York and Baltimore) with the Midwest. Within Pennsylvania, this line is comprised of the Harrisburg Line (Philadelphia-Harrisburg), Pittsburgh Line (Harrisburg-Pittsburgh) and Fort Wayne Line (Pittsburgh-Ohio border).

Reading-Bethlehem-Easton-New Jersey border (Table 1, numbers 72 and 88). The Norfolk Southern Reading Line and eastern portion of the Lehigh Line are likewise

[4] Association of American Railroads website, January 2003.
[5] *Ibid.*

Table 1
Traffic Density, 286,000-pound Railcar Capability
and Number of Bridges on
Pennsylvania's Rail Lines

	Railroad	Location/start, intermediate and end points	Length	Line name or type operation	MGT	286K Ready	Bridges
1	Aliquippa & Ohio River Railroad Company	Aliquippa	21	Switching and terminal	<1	No	0
2	Allegheny & Eastern Railroad	Erie - Emporium	147	Erie - Emporium Main Line	1.4	Yes	91
3	Allegheny Southern Railroad	Windber	6	Inactive: lost customer	0		
4	Allegheny Valley Railroad Company	Pittsburgh-Verona-Arnold	26	Switching and terminal	<1		
5	B&E Railroad	Windber		Inactive since 1994 or 1995	0		
6	Belvidere & Delaware River Railway Company	Easton	2	Easton Branch	<1	Yes	1
7	Bessemer & Lake Erie Railroad Company	Albion-Greenville-Pittsburgh	124	Main Line	15	Yes	111
8	Bessemer & Lake Erie Railroad Company	Albion-NS	9	Erie Branch	3	Yes	In Above
9	Bessemer & Lake Erie Railroad Company	Conneat, Ohio-Albion	13	Conneaut Branch	13	Yes	4
10	Bessemer & Lake Erie Railroad Company	Branchton-end of track	4	Hilliards Branch	<1		
11	Brandywine Valley Railroad Company	Coatesville-Chadds Ford-Delaware border	19	Switching and terminal	2.7	Yes	
12	Buffalo & Pittsburgh Railroad	NY/PA State Line-Bradford-DuBois-Butler-Eidenau	184	Main Line Subdivision	8	Yes	231
13	Buffalo & Pittsburgh Railroad	Butler-Chicora-Bruin	15	Northern Subdivision	0.8	No	17
14	Buffalo & Pittsburgh Railroad	End of Track - North/South	6	Bradford Industrial Track		No	2
15	Buffalo & Pittsburgh Railroad	Brockway - End of Track	5	Brockway Industrial Track		No	2
16	Buffalo & Pittsburgh Railroad	Hutchings - Temple Inland	1	Hutchins Industrial Track		No	0
17	Buffalo & Pittsburgh Railroad	Mosgrove North - B&P Junction	1	Mosgrove Industrial Track		Yes	0
18	Buffalo & Pittsburgh Railroad	East Dubois Junction - End of Track	1	Wharton Industrial Track		No	2
19	C&S Railroad Corporation	RBMN (Jim Thorpe)-RBMN (Mauch Chunk/Mahoney City)	18	Switching and terminal	<1	No	3

Table 1
Traffic Density, 286,000-pound Railcar Capability
and Number of Bridges on
Pennsylvania's Rail Lines

	Railroad	Location/start, intermediate and end points	Length	Line name or type operation	MGT	286K Ready	Bridges
20	Cambria & Indiana Railroad Company	Ebensburg		Inactive coal-haul railroad	0		
21	Canadian Pacific Railway	NY State Line-Scranton-Sunbury	127	Freight Main Line	13.2	Yes	101
22	Central Columbiana & Pennsylvania Railroad	Ohio state line-Darlington (Beaver County)	7	Main line	<1	Yes	1
23	Chestnut Ridge Railway Company	Palmerton-Little Gap	6	Switching and terminal	<1	No	2
24	Conemaugh & Black Lick Railroad Company	Johnstown	28	Switching and terminal	<1	No	4
25	Consolidated Rail Corporation	Philadelphia, Bucks and Delaware Counties	28	Switching and terminal			
26	CSX Transportation	Philadelphia-Darby-Chester-DE state line	19	Philadelphia Subdivision	32		29
27	CSX Transportation	MD state line-Hanover-Gettysburg-MD state line	54	Hanover Subdivision	4		54
28	CSX Transportation	MD State Line-Chambersburg-Lurgan	32	Lurgan Subdivision	3	Yes	13
29	CSX Transportation	MD State Line-Pittsburgh	128	Keystone Subdivision	54	Yes	65
30	CSX Transportation	Rockwood-Johnstown	45	S&C Subdivision	1		41
31	CSX Transportation	New Castle-Pittsburgh via Aliquippa	76	Pittsburgh Subdivision	97		65
32	CSX Transportation	New Castle-Pittsburgh via Eidenau	62	P&W Subdivision	5	Yes	88
33	CSX Transportation	Tylerdale Jct.-Pittsburgh	38	W&P Subdivision	<1	Yes	48
34	CSX Transportation	NY state line - CP 97 (Erie)	29	Lakeshore Subdivision	109	Yes	29
35	CSX Transportation	CP-97 (Erie)-OH state line	15	Chicago Line	113	Yes	0
36	CSX Transportation	New Castle-OH state line	9	New Castle Subdivision	100	Yes	0
37	CSX Transportation	McKeesport-Brownsville	39	Mon Subdivision	44	Yes	14
38	CSX Transportation	Philadelphia-NJ state line	31	Trenton Subdivision	24	Yes	
39	CSX Transportation	Philadelphia	8	Harrisburg Subdivision	23	Yes	
40	Cumberland Mine Railroad	Grays Landing-Kirby	17	Short Line coal haul railroad	9.3	Yes	14

Table 1
Traffic Density, 286,000-pound Railcar Capability
and Number of Bridges on
Pennsylvania's Rail Lines

	Railroad	Location/start, intermediate and end points	Length	Line name or type operation	MGT	286K Ready	Bridges
41	Delaware-Lackawanna Railroad Company	Stroudsburg-Scranton-Carbondale	89	Pocono Main Line, Carbondale Line	<1	Yes	33
42	East Erie Commercial Railroad	Erie	12	Switching and terminal	<1	Yes	6
43	East Penn Railways, Inc.	Telford-Quakertown	15	Switching and terminal	<1	Yes	11
44	Everett Railroad Company	Duncansville	26	Main	<1	No	1
45	Franklin County General Authority	Chambersburg	20	Switching and terminal	<1	Yes	0
46	Gettysburg & Northern Railroad Company	Mount Holly Springs-Gettysburg	25	Main		Yes	
47	Hollidaysburg and Roaring Spring Railroad Company	Hollidaysburg-Roaring Spring	10	Main	<1	Yes	18
48	Johnstown America Corporation	Johnstown	4	Switching and terminal	<1	No	1
49	The Juniata Terminal Company	Philadelphia	1	Switching and terminal			
50	Juniata Valley Railroad Company	Lewistown-Maitland	7	Maitland Branch	<1	Yes	4
51	Juniata Valley Railroad Company	Lewistown	4	Burnham Branch	<1	Yes	4
52	Kasgro Rail Lines	New Castle	4	Switching and terminal	<1	Yes	0
53	Kiski Junction Railroad	Freeport	6	Switching and terminal	<1	Yes	1
54	Knox & Kane Railroad Company	Mt. Jewett-Kane-Marienville-Clarion	74	Main	<1	No	9
55	Landisville Terminal & Transfer Company	Landisville	2	Switching and terminal	<1	No	0
56	Luzerne & Susquehanna Railway Company	Scranton-Wilkes Barre	64	Switching and terminal	<1	Yes	11
57	Lycoming Valley Railroad Company	Muncy-Williamsport-Avis	34	Main Line and Sidings	<1	Yes	45
58	Maryland Midland Railway	Blue Ridge Summit	0.3	WM West Subdivision	<1	Yes	0
59	McKeesport Connecting Railroad	McKeesport	4	Switching and terminal	<1	Yes	0
60	Middletown & Hummelstown Railroad Company	Middletown-Hummelstown	7	Main	<1	No	4

Table 1
Traffic Density, 286,000-pound Railcar Capability
and Number of Bridges on
Pennsylvania's Rail Lines

	Railroad	Location/start, intermediate and end points	Length	Line name or type operation	MGT	286K Ready	Bridges
61	The Midland Terminal Company	Midland	13	Switching and terminal	1.1	No	0
62	The Monongahela Connecting Railroad Company	Pittsburgh	8	Switching and terminal	<1	No	0
63	Mount Union Connecting Railroad	Mount Union	2	Switching and terminal	0	Yes	1
64	New Castle Industrial Railroad	New Castle	12	Switching and terminal	<1	Yes	2
65	New Hope & Ivyland Railroad	New Hope-Ivyland	18	Main	<1	No	10
66	Nittany & Bald Eagle Railroad Company	Tyrone-Milesburg-Lock Haven	55	Main	1.24	Yes	40
67	Nittany & Bald Eagle Railroad Company	Milesburg-Lemont	12	Bellefonte Branch	<1	Yes	9
68	Nittany & Bald Eagle Railroad Company	Fish Hatchery-Gramont	3	Pleasant Gap Branch	<1	Yes	1
69	Norfolk Southern	Kirkwood NY-Susquehanna-Lackawaxen-Port Jervis NY	42	Southern Tier Line (42 mi. in PA)	4.4	Yes	26
70	Norfolk Southern	NY border-Sayre-Towanda-Mehoopany	60	Lehigh Secondary	0.8	Yes	34
71	Norfolk Southern	Portland-Slateford-Stroudsburg	12	Stroudsburg Secondary	0		0
72	Norfolk Southern	NJ state line-Easton-Allentown-Lehighton-Ashmore Sec.	93	Lehigh Line	26	Yes	59
73	Norfolk Southern	Lehigh Line M&H Jcn. (N. of Jim Thorpe)-Hazleton	10	Ashmore Secondary	0.8	Yes	6
74	Norfolk Southern	Bethlehem-Hellertown	4	Bethlehem Secondary	2.2	Yes	4
75	Norfolk Southern	Alburtis-Walbert-Seiple-End of track	12	C&F Secondary	1.5	No	9
76	Norfolk Southern	Bethlehem-Bath-Stockerton-Uhlers	23	Cement Secondary	0.8	Yes	24
77	Norfolk Southern	Easton-Phillipsburg NJ-Brainards NJ-Martins Creek-Portland	18	Portland Sec. (18 mi. in PA)	2.8	Yes	11
78	Norfolk Southern	MD state line-Columbia-Harrisburg (Camp Hill)-CP Banks (near Perdix)	120	Port Road Branch	18	Yes	96
79	Norfolk Southern	Harrisburg (Camp Hill)-Mechanicsburg-Carlisle	21	Shippensburg Secondary	3.7	No	8
80	Norfolk Southern	CP WAGO (south of York Haven)-York	10	York Secondary	2.5	No	17

Table 1
Traffic Density, 286,000-pound Railcar Capability
and Number of Bridges on
Pennsylvania's Rail Lines

	Railroad	Location/start, intermediate and end points	Length	Line name or type operation	MGT	286K Ready	Bridges
81	Norfolk Southern	Lancaster-Mountville-Columbia	12	Columbia Secondary	4.7	Yes	8
82	Norfolk Southern	Lancaster (Amtrak)-Manheim-Lititz	15	Lititz Secondary		No	7
83	Norfolk Southern	Lancaster (Amtrak)-Rancks (near New Holland)	12	New Holland Secondary	0.8	Yes	0
84	Norfolk Southern	Harrisburg-Chambersburg-MD state line	68	Lurgan Branch	26	Yes	101
85	Norfolk Southern	Philadelphia-Pottstown-Reading-Hershey-Harrisburg	118	Harrisburg Line	78	Yes	152
86	Norfolk Southern	Lansdale-Norristown	10	Stony Creek Branch			
87	Norfolk Southern	CP Shocks (near Marietta)-Middletown-Harrisburg	22	Royalton Branch	4.8		15
88	Norfolk Southern	Bethlehem-Allentown-Reading	58	Reading Line	78	Yes	49
89	Norfolk Southern	Reading	3	Pottsville Branch	78	Yes	7
90	Norfolk Southern	Morrisville-Norristown	41	Morrisville Line	14	No	33
91	Norfolk Southern	Norristown-King of Prussia-Glen Loch (west of Malvern)	16	Dale Secondary	4.1	Yes	
92	Norfolk Southern	Harrisburg-Lock Haven-Emporium-Eldred-NY state line	227	Buffalo Line	10	Yes	151
93	Norfolk Southern	Larabee-Farmers Valley	5	Farmers Valley Secondary	0.3		5
94	Norfolk Southern	Watsontown-Strawberry Ridge	12	Watsontown Secondary	5	Yes	12
95	Norfolk Southern	Harrisburg-Duncannon-Altoona-Johnstown-Pittsburgh	248	Pittsburgh Line	122	Yes	25
96	Norfolk Southern	East Pittsburgh	3	Port Perry Branch	24.4	Yes	1
97	Norfolk Southern	Altoona-Hollidaysburg	6	Cove Secondary	0.7		12
98	Norfolk Southern	South Fork-Windber-Cairnbrook-Central City	31	South Fork Secondary	4.5		19
99	Norfolk Southern	OH State Line-CP Rochester (NW of Pittsburgh)	15	Cleveland Line	11	Yes	11

Table 1
Traffic Density, 286,000-pound Railcar Capability
and Number of Bridges on
Pennsylvania's Rail Lines

	Railroad	Location/start, intermediate and end points	Length	Line name or type operation	MGT	286K Ready	Bridges
100	Norfolk Southern	CP Penn (Pittsburgh)-CP Conpit (NW of Johnstown)	78	Conemaugh Line	4	Yes	61
101	Norfolk Southern	Pittsburgh-Conway-Rochester-Homewood-Enon Valley-OH state line	49	Fort Wayne Line	104	Yes	88
102	Norfolk Southern	Homewood-Koppel-Cement (Wampum)	6	Koppel Secondary	10.7	Yes	11
103	Norfolk Southern	Meadville-OH State Line	42	Meadville Line	0.8	No	32
104	Norfolk Southern	Meadville-Cochranton-Franklin-Oil City	33	Franklin Secondary	0.8	Yes	26
105	Norfolk Southern	West Brownsville-Masontown-Point Marion-WV border	36	Loveridge Secondary	20	Yes	41
106	Norfolk Southern	Pittsburgh-Waynesburg	86	Mon Line	20	Yes	109
107	Norfolk Southern	Monongahela-Ellsworth-Mariana	19	Ellsworth Secondary	2.2	Yes	24
108	Norfolk Southern	Waynesburg-Bailey Mine	15	Manor Branch		Yes	
109	Norfolk Southern	OH state line-New Castle-Wampum-Eastvale-Rochester	31	Youngstown Line	28	Yes	21
110	Norfolk Southern	Mon Line-Wana	23	Waynesburg Southern Branch	10	Yes	14
111	Norfolk Southern	OH state line-Erie-NY state line	44	Buffalo/Cleveland District	27	No	35
112	Norfolk Southern	Cloe-Clarksburg (Pittsburgh Division)	42	Shelocta Running Track	3.9		10
113	North Shore Railroad	Northumberland-Bloomsburg-Berwick	38	Main	<1	Yes	19
114	Oil Creek & Titusville Line, Inc.	Rouseville-Titusville	16	Main	<1	No	8
115	Penn Eastern Rail Lines, Inc.	Stevens-Sinking Spring	12	Main	<1	Yes	4
116	Penn Eastern Rail Lines, Inc.	Manheim	1	Main	<1	Yes	0
117	Penn Eastern Rail Lines, Inc.	Pottstown-Boyertown	8	Boyertown Branch	<1	Yes	7
118	Penn Eastern Rail Lines, Inc.	Emmaus-Pennsburg	16	Main	<1	Yes	9
119	Penn Eastern Rail Lines, Inc.	Bridgeport-Henderson	2	Main	<1	Yes	1
120	Penn Eastern Rail Lines, Inc.	Bristol	1	Industrial track	<1	Yes	0

Table 1
Traffic Density, 286,000-pound Railcar Capability
and Number of Bridges on
Pennsylvania's Rail Lines

	Railroad	Location/start, intermediate and end points	Length	Line name or type operation	MGT	286K Ready	Bridges
121	Philadelphia, Bethlehem & New England RR Co.	Bethlehem	8	Switching and terminal	2.4	Yes	3
122	Pittsburgh, Allegheny & McKees Rocks RR Co.	McKees Rocks	5	Switching and terminal	<1	Yes	0
123	The Pittsburgh & Ohio Central Railroad Company	McKees Rocks-Bridgeville-Washington	43	Main, Neville Branch, Scully	<1	No	31
124	Pittsburg & Shawmut Railroad, Inc.	Lawsonham-Brookville-DuBois-Benezette-Driftwood	103	Laurel Subdivision	2.8	Yes	86
125	Pittsburg & Shawmut Railroad, Inc.	Brookville-Kittanning-Freeport	69	Shawmut Subdivision	0.8	Partially	80
126	Pittsburg & Shawmut Railroad, Inc.	Lawsonham-Sligo	10	Red Bank Industrial Track	0.02	No	3
127	R.J. Corman Railroad Company	Cresson-Mahaffey-Curwensville-Clearfield	65	Cresson Subdivision	<1	Yes	38
128	R.J. Corman Railroad Company	Cresson-Ashville-Dysart-Fallen Timber	23	Irvona Branch	<1	Yes	12
129	R.J. Corman Railroad Company	Cherry Tree - Kinport	0.5	Kinport Tail Track	<1	Yes	0
130	R.J. Corman Railroad Company	Clearfield-Wallaceton-Osceola Mills-Coal Run	24	Wallaceton Branch	<1	Yes	6
131	R.J. Corman Railroad Company	Mahaffey	3	Bigler Indistrial Track	<1	Yes	3
132	R.J. Corman Railroad Company	Mahaffey-Burnside-Cherry Tree-Starford-Dixonville	36	Cherry Tree Branch	1.3	Yes	25
133	R.J. Corman Railroad Company	McGees Mills-Hillman (northeast corner Indiana County)	7	Hillman Branch	<1	Yes	3
134	R.J. Corman Railroad Company	Clearfield	2	Leslie Tipple Track	<1	Yes	2
135	R.J. Corman Railroad Company	Clearfield-Surveyor-Frenchville-Karthaus-North Keating	54	WBV Subdivision	1.2	Yes	40
136	R.J. Corman Railroad Company	Allentown	6	Switching and terminal	<1	No	2
137	Reading, Blue Mountain & Northern Railroad	Reading	1	Auburn Industrial	<1	Yes	4
138	Reading, Blue Mountain & Northern Railroad	Haucks Junction (near Mahoney City)-Hazleton-Jeddo	20	Catawissa and Hazleton Branch	<1	Yes	5

Table 1
Traffic Density, 286,000-pound Railcar Capability
and Number of Bridges on
Pennsylvania's Rail Lines

	Railroad	Location/start, intermediate and end points	Length	Line name or type operation	MGT	286K Ready	Bridges
139	Reading, Blue Mountain & Northern Railroad	Delano	4	Delano Industrial Track	<1	Yes	4
140	Reading, Blue Mountain & Northern Railroad	Tamaqua-Lansford	2	Greenwood Industrial Track	<1	Yes	6
141	Reading, Blue Mountain & Northern Railroad	E. Mahanoy Junction (near Mahoney City)-Mount Carmel	27	Mahanoy & Shamokin Branch	<1	Yes	16
142	Reading, Blue Mountain & Northern Railroad	Reading-Port Clinton-Tamaqua-Carbon (near Mahoney City)	44	Main Line	<1	Yes	32
143	Reading, Blue Mountain & Northern Railroad	Mine (Schulkill Haven)-Reading Anthracite (Minersville)	8	Minersville Branch	<1	Yes	17
144	Reading, Blue Mountain & Northern Railroad	Laurel Junction (Temple/North Reading)-Hamburg	13	Pennsy Branch	<1	Yes	26
145	Reading, Blue Mountain & Northern Railroad	Port Clinton (Main Line)-Auburn-Schuylkill Haven-Pottsville-Middleport	22	Pottsville Branch/Industrial track	<1	Yes	19
146	Reading, Blue Mountain & Northern Railroad	Shenandoah Junction-Kohinoor Junction (near Shenandoah)	5	Shenandoah Industrial	<1	Yes	3
147	Reading, Blue Mountain & Northern Railroad	Swatara Junction (E. of Tremont)-End of Track	2	Swatara Industrial Track	<1	Yes	1
148	Reading, Blue Mountain & Northern Railroad	Westwood Junction (SW of Pottsville)-Tremont-Good Spring-Kocher	16	Tremont Industrial Track	<1	Yes	12
149	Reading, Blue Mountain & Northern Railroad	Lehighton-Jim Thorpe-White Haven-Pittston-Tunkhannock-Carney	93	Lehigh Line	<1	Yes	42
150	Reading, Blue Mountain & Northern Railroad	Pittston Junction-Cuyuga (Scranton)	3	Taylor Branch/Keyser Industrial Track	<1	Yes	10
151	Shamokin Valley Railroad Company	Sunbury-Locust (point east of Shamokin)	22	Main	<1	Yes	28
152	SMS Rail Service, Inc.	Morrisville	4	Switching and terminal	<1	Yes	0
153	Southwest Pennsylvania Railroad	Greensburg-Connellsville-Uniontown	65	Switching and terminal			
154	Steelton & Highspire Railroad Company	Steelton	5	Switching and terminal	2.1	Yes	2
155	Stourbridge Railroad Company	Lackawaxen-Hawley-Honesdale	25	Main	<1	Yes	25
156	Strasburg Rail Road Company	Strasburg	5	Switching and terminal	<1	Yes	1

Table 1
Traffic Density, 286,000-pound Railcar Capability
and Number of Bridges on
Pennsylvania's Rail Lines

	Railroad	Location/start, intermediate and end points	Length	Line name or type operation	MGT	286K Ready	Bridges
157	Towanda-Monroeton Shippers Lifeline, Inc.	Towanda-Monroeton	6	Switching and terminal	<1	Yes	2
158	Turtle Creek Industrial Railroad Company, Inc.	Trafford	11	Switching and terminal	<1	No	8
159	Tyburn Railroad Company	Morrisville	4	Switching and terminal	<1	Yes	0
160	Union County Industrial Railroad Company	New Columbia-West Milton-Lewisburg-Mifflinburg	13	Main, plus branch to Winfield	<1	Yes	18
161	Union Railroad Company	N Bessemer Yard (NE Pittsburgh)-Duquesne-Clairton	24	Switching and terminal	9.5	Yes	12+
162	Upper Merion and Plymouth Railroad Company	Conshohocken	6	Switching and terminal	1.1	Yes	2
163	Wellsboro & Corning Railroad Company	Wellsboro	35	Main	<1	Yes	41
164	Western New York & Pennsylvania Railroad	Meadville-Corry-New York state line	57	Main	<1	Yes	16
165	Wheeling & Lake Erie Railway Company	WV state line-Avella-Hickory-Pittsburgh-Monessen-Connellsville	86	Pittsburgh and Rook Subdivisions	<1	Yes	111
166	Wheeling & Lake Erie Railway Company	West Belt Junction-West End Pittsburgh	2	West End Branch	<1	Yes	6
167	Wheeling & Lake Erie Railway Company	Longview-Mifflin Junction	4	Mifflin Branch	<1	Yes	2
168	Wheeling & Lake Erie Railway Company	Pierce-Clairton	6	Clairton Branch	<1	No	5
169	Wheeling & Lake Erie Railway Company	Monessen-Coke Yard	7	Monessen Spur	<1	No	3
170	White Deer & Reading Railroad	White Deer-Allenwood	3	Main (out of service)	0		
171	York Railway Company	York-Spring Grove-Hanover	40	Main plus East Br., Central Br.	1.6	Yes	42

Note: Blank spaces indicate data not provided.

Source: Railroads and RLBA research

very heavily-trafficked, carrying over 100 MGT, and provide the east-west "Main Line" with a direct connection to the ports and metropolitan areas of New York and New Jersey.

Maryland (Perryville)-Columbia-Harrisburg (Table 1, number 78). This portion of Norfolk Southern's Port Road Branch carries 28 MGT between Harrisburg and eastern Maryland and Northern Delaware.

Harrisburg-Chambersburg-Maryland (Hagerstown) (Table 1, number 84). The 26 MGT Lurgan Branch connects the Norfolk Southern east-west Main Line with points south.

Pittsburgh-Brownsville-Waynesburg (Table 1, number 106). Norfolk Southern's Mon Line carries coal from mines in southwest Pennsylvania and West Virginia. A branch of this line, the Loveridge Secondary, connects Brownsville with Morgantown, West Virginia. These lines carry traffic in the range of 20 MGT.

Harrisburg-Lock Haven-Emporium-Port Allegany-New York border (Table 1, number 92). The Norfolk Southern Buffalo Line (formerly Pennsylvania Railroad (and Conrail)) connects Buffalo with Harrisburg. Traffic density in year 2000 (latest data available) was 10 MGT. Because of gradients on this line, Norfolk Southern has found it expedient to transfer some traffic to the Canadian Pacific Railway (CPR) line connecting Binghamton-Scranton-Dupont (southwest of Scranton) and the Reading Blue Mountain & Northern Railroad Company (RBMN) line connecting Dupont and Lehighton. The Buffalo Line is a connection between the Niagara frontier and eastern United States, therefore a NAFTA (North American Free Trade Agreement) trade route.

New York border-Erie-Ohio border (Table 1, number 111). In the northwest corner of Pennsylvania, the Norfolk Southern Buffalo/Cleveland District line carries 27 MGT. The portion of this line between Buffalo, New York, and Conneaut, Ohio, (which includes the segment in Pennsylvania) is limited to 263,000-pound railcars.

CSX

New York border-Erie-Ohio border (Table 1, numbers 34 and35). CSX's Chicago Line and Lakeshore Subdivision meet at Erie. The portion of this line in northwest Pennsylvania carries 113 MGT and is part of the former New York Central line connecting Buffalo and Cleveland.

Maryland border-Connellsville-Pittsburgh-New Castle-Ohio border (Table 1, numbers 29, 31 and 36). This line carries 100 MGT and includes CSX's Keystone, Pittsburgh and New Castle Subdivisions. A branch off this line, the Mon

Subdivision, extends from Pittsburgh through Brownsville to West Virginia; the Pittsburgh-Brownsville portion carries 44 MGT.

Delaware border-Chester-Philadelphia-New Jersey border (Table 1, numbers 26 and 38). Paralleling Amtrak's Northeast Corridor and to the west of it, this line includes CSX's Philadelphia and Trenton Subdivisions, and carries 32 MGT.

National Railroad Passenger Corporation (Amtrak)

A portion of Amtrak's Northeast Corridor passes through southeast Pennsylvania, including Philadelphia. Although some freight is moved on this corridor, it is predominantly a passenger rail corridor. Even so, it should be considered a strategic railroad corridor because its alignment serves the highly populated areas surrounded the Washington DC-Baltimore-Philadelphia-New York City metropolitan corridor, and also carries coal and other freight traffic.

Line-by-Line Census Conclusions. The line-by-line census (see Table 1) shows the great range of traffic on Pennsylvania's rail lines. Those lines at the lower end of the range will probably require maintenance and capital investment assistance, inasmuch as revenues will likely not cover costs of maintaining the line. In particular, those low density lines deemed not capable of handling 286,000-pound railcars are liable to require assistance if the heavier railcars are to be carried on the line.

At Risk Rail Lines

At the other end of the spectrum, Pennsylvania has a number of rail lines which may be considered "at risk". When the federal government Local Rail Freight Assistance program provided a source of funding to states to preserve local freight rail lines, five million annual gross tons was the upper limit for assistance, an indication that this level may provide sufficient revenue to maintain the track. (No general rule should be assumed, however, as adequate maintenance of track is a function of many factors, including volume and weight of traffic, train speed, condition of track structure, weight of rail, and spacing and condition of cross ties.)

Review of Table 1 reveals that there are 124 Pennsylvania rail lines with annual traffic less than 5 million gross tons. These lines are considered *somewhat at risk*. Included in this figure are 96 rail lines showing traffic less than one million gross tons per year. Included in these figures are 6 lines with no traffic, but not included are 12 lines for which data are not available.

By virtue of their relatively low traffic density, lines with less than one million annual gross tons in Table 1 are explicitly listed for emphasis in Table 2 and are

considered *at risk*. As stated above, no data was provided with regard to an additional 12 lines, on several of which it is probable that traffic is less than one million gross tons per year. Thus there may be additional lines in this category.

Looking at the group of rail lines with annual traffic less than 5 million gross tons, some further observations are pertinent. These are relatively low traffic density lines, and bear watching with regard to their economic viability. In particular, those owned by Class I railroads are subject to sale or lease, given the desire of Class I railroads to improve their operating ratios (revenues divided by costs). Following are the Class I rail lines carrying less than 5 million annual gross tons and therefore deemed potential candidates for sale or lease. (The lines are shown with their Table 1 numbers):

CSX

27 MD state line-Hanover-Gettysburg-MD state line (Hanover Subdivision)
28 MD state line-Chambersburg-Lurgan (Lurgan Subdivision)
30 Rockwood-Johnstown (S&C Subdivision)
33 Tylerdale Jct.-Pittsburgh (W&P Subdivision)

Norfolk Southern

69 Kirkwood-Port Jervis (Southern Tier Line)
70 Sayre-Mehoopany (Lehigh Secondary)
71 Jake-Gravel (Stroudsburg Secondary)
73 Lehigh Line M&H Jcn-Hazleton (Ashmore Secondary)
74 Bethlehem-Hellerton (Bethlehem Secondary)
75 Alburtis-Walbert-Seiple-end of track (C&F Secondary)
76 Bethlehem-Bath-Stockerton-Uhlers (Cement Secondary)
77 Easton-Phillipsburg NJ-Brainards NJ- Portland (Portland Secondary)
79 Harrisburg (Camp Hill)-Mechanicsburg-Carlisle (Shippensburg Secondary)
80 CP WAGO (south of York Haven)-York (York Secondary)
81 Lancaster-Mountville-Columbia (Columbia Secondary)
83 Lancaster-Rancks (near New Holland) (New Holland Secondary)
87 CP Shocks (near Marietta)-Middleton-Harrisburg (Royalton Branch)
91 Norristown-King of Prussia-Glen Loch (west of Malvern) (Dale Secondary)
93 Larabee-Farmers Valley (Farmers Valley Secondary)
97 Altoona-Hollidaysburg (Cove Secondary)
103 Meadville-OH state line (Meadville Line)
104 Buck-Oil City (Franklin Secondary)
98 Central City-South Fork (South Fork Secondary)
112 Cloe-Clarksburg (Shelocta Running Track)
107 Monongahela-Ellsworth-Mariana (Ellsworth Secondary)

Table 2

Pennsylvania Rail Lines
With Annual Traffic
Less Than One Million Gross Tons

	Railroad	Line Location
1	Aliquippa & Ohio River Railroad Company	Aliquippa
2	Allegheny Southern Railroad	Windber
3	Allegheny Valley Railroad Company	Pittsburgh-Verona-Arnold
4	B&E Railroad	Windber
5	Belvidere & Delaware River Railway Company	Easton
6	Bessemer & Lake Erie Railroad Company	Branchton-end of track (3.6-mile Hilliards Branch)
7	Buffalo & Pittsburgh Railroad	Butler-Chicora-Bruin (Northern Subdivision)
8	C&S Railroad Corporation	Jim Thorpe-Mahoney City
9	Cambria & Indiana Railroad Company	Edensburg
10	Central Columbiana & Pennsylvania Railroad	Ohio state line-Darlington (Beaver County)
11	Chestnut Ridge Railway Company	Palmerton-Little Gap
12	Conemaugh & Black Lick Railroad Company	Johnstown
13	CSX Transportation	Tylerdale Jct.-Pittsburgh (W&P Subdivision)
14	Delaware-Lackawanna Railroad Company	Stroudsburg-Scranton-Carbondale
15	East Erie Commercial Railroad	Erie
16	East Penn Railways, Inc.	Telford-Quakertown
17	Everett Railroad Company	Duncansville
18	Franklin County General Authority	Chambersburg
19	Hollidaysburg and Roaring Spring Railroad	Hollidaysburg-Roaring Spring
20	Johnstown America Corporation	Johnstown
21	Juniata Valley Railroad Company	Lewistown-Maitland (Maitland Branch)
22	Juniata Valley Railroad Company	Lewistown (Burnham Branch)
23	Kasgro Rail Lines	New Castle
24	Kiski Junction Railroad	Freeport
25	Knox & Kane Railroad Company	Mt. Jewett-Kane-Marienville-Clarion
26	Landisville Terminal & Transfer Company	Landisville
27	Luzerne & Susquehanna Railway Company	Scranton-Wilkes Barre
28	Lycoming Valley Railroad Company	Muncy-Williamsport-Avis

Table 2

Pennsylvania Rail Lines
With Annual Traffic
Less Than One Million Gross Tons

29	Maryland Midland Railway	Blue Ridge Summit
30	McKeesport Connecting Railroad	McKeesport
31	Middletown & Hummelstown Railroad Company	Middletown-Hummelstown
32	The Monongahela Connecting Railroad Company	Pittsburgh
33	Mount Union Connecting Railroad Company	Mount Union
34	New Castle Industrial Railroad	New Castle
35	New Hope & Ivyland Railroad	New Hope-Ivyland
36	Nittany & Bald Eagle Railroad Company	Milesburg-Lemont (Bellefonte Branch)
37	Nittany & Bald Eagle Railroad Company	Fish Hatchery-Gramont (Pleasant Gap Branch)
38	Norfolk Southern	NY border-Sayre-Towanda-Mehoopany (Lehigh Secondary)
39	Norfolk Southern	Lehigh Line M&H Jcn (N. of Jim Thorpe)-Hazleton (Ashmore Sec)
40	Norfolk Southern	Bethlehem-Bath-Stockerton-Uhlers (Cement Secondary)
41	Norfolk Southern	Lancaster-Rancks (New Holland Secondary)
42	Norfolk Southern	Larabee-Farmers Valley (Farmers Valley Secondary)
43	Norfolk Southern	Altoona-Hollidaysburg (Cove Secondary)
44	Norfolk Southern	Meadville-OH state line (Meadville Line)
45	Norfolk Southern	Meadville-Cochranton-Franklin-Oil City (Franklin Secondary)
46	Norfolk Southern	Portland-Slateford-Stroudsburg (Stroudsburg Secondary)
47	North Shore Railroad	Northumberland-Bloomsburg-Berwick
48	Oil Creek & Titusville Line, Inc.	Rouseville-Titusville
49	Penn Eastern Rail Lines, Inc.	Stevens-Sinking Spring
50	Penn Eastern Rail Lines, Inc.	Manheim
51	Penn Eastern Rail Lines, Inc.	Pottstown-Boyertown
52	Penn Eastern Rail Lines, Inc.	Emmaus-Pennsburg
53	Penn Eastern Rail Lines, Inc.	Bridgeport-Henderson
54	Penn Eastern Rail Lines, Inc.	Bristol
55	Pittsburgh, Allegheny & McKees Rocks Railroad Company	McKees Rocks

Table 2

Pennsylvania Rail Lines
With Annual Traffic
Less Than One Million Gross Tons

56	The Pittsburgh & Ohio Central Railroad Company	McKees Rocks-Bridgeville-Washington
57	Pittsburgh & Shawmut Railroad, Inc.	Brookville-Kittanning-Freeport (Shawmut Subdivision)
58	Pittsburgh & Shawmut Railroad, Inc.	Lawsonham-Sligo (Red Bank Inustrial Track)
59	R.J. Corman Railroad Company	Cresson-Mahaffey-Curwensville-Clearfield (Cresson Sub)
60	R.J. Corman Railroad Company	Cresson-Ashville-Dysart-Fallen Timber (Irvona Branch)
61	R.J. Corman Railroad Company	Cherry Tree-Kinport (0.5-mile Kinport tail track)
62	R.J. Corman Railroad Company	Clearfield-Wallaceton-Osceola Mills-Coal Run (Wallaceton Br)
63	R.J. Corman Railroad Company	Mahaffey (3-mile Bigler Industrial Track)
64	R.J. Corman Railroad Company	McGees Mills-Hillman (Hillman Branch, NE corner Indiana County)
65	R.J. Corman Railroad Company	Clearfield (2.3-mile Lesline Tipple Track)
66	R.J. Corman Railroad Company	Allentown switching and terminal lines (6.4 miles)
67	Reading, Blue Mountain & Northern Railroad	Reading (Auburn Industrial Track)
68	Reading, Blue Mountain & Northern Railroad	Haucks Junction (near Mahoney City)-Hazleton-Jeddo
69	Reading, Blue Mountain & Northern Railroad	Delano Industrial Track
70	Reading, Blue Mountain & Northern Railroad	Tamaqua-Lansford (Greenwood Industrial Track)
71	Reading, Blue Mountain & Northern Railroad	E. Mahanoy Junction (near Mahoney City)-Mount Carmel
72	Reading, Blue Mountain & Northern Railroad	Reading-Port Clinton-Tamaqua-Carbon (near Mahoney City)
73	Reading, Blue Mountain & Northern Railroad	Mine (Schulkill Haven)-Reading Anthracite (Minersville)
74	Reading, Blue Mountain & Northern Railroad	Laurel Junction (Temple/North Reading)-Hamburg (Pennsy Br)
75	Reading, Blue Mountain & Northern Railroad	Port Clinton-Auburn-Schuylkill Haven-Pottsville-Middleport
76	Reading, Blue Mountain & Northern Railroad	Shenandoah Junction-Kohinoor Junction (near Shenandoah)
77	Reading, Blue Mountain & Northern Railroad	Swatara Junction (E. of Tremont)-End of Track
78	Reading, Blue Mountain & Northern Railroad	Westwood Junction-Tremont-Good Spring-Kocher
79	Reading, Blue Mountain & Northern Railroad	Lehighton-Jim Thorpe-White Haven-Pittston-Tunkhannock-Carney
80	Reading, Blue Mountain & Northern Railroad	Pittston Junction-Cuyuga (Scranton) (Taylor Br, Keyser IT)

Table 2

Pennsylvania Rail Lines
With Annual Traffic
Less Than One Million Gross Tons

81	Shamokin Valley Railroad Company	Sunbury-Locust (point east of Shamokin)
82	SMS Rail Service, Inc.	Morrisville
83	Stourbridge Railroad Company	Lackawaxen-Hawley-Honesdale
84	Strasburg Rail Road Company	Strasburg
85	Towanda-Monroeton Shippers Lifeline, Inc.	Towanda-Monroeton
86	Turtle Creek Industrial Railroad Company, Inc.	Trafford
87	Tyburn Railroad Company	Morrisville
88	Union County Industrial Railroad Company	New Columbia-West Milton-Lewisburg-Mifflinburg
89	Wellsboro & Corning Railroad Company	Wellsboro
90	Western New York & Pennsylvania Railroad	Meadville-Corry-New York state line
91	Wheeling & Lake Erie Railway Company	WV state line-Avella-Hickory-Pittsburgh-Monessen-Connellsville
92	Wheeling & Lake Erie Railway Company	West Belt Junction-West End Pittsburgh
93	Wheeling & Lake Erie Railway Company	Longview-Mifflin Junction
94	Wheeling & Lake Erie Railway Company	Pierce-Clairton
95	Wheeling & Lake Erie Railway Company	Monessen-Coke Yard
96	White Deer & Reading Railroad	White Deer-Allenwood

Note: Numbers in left-hand column are not necessarily the same as those in same column in Table 1.

Source: RLBA research.

Once Norfolk Southern completes construction of a new line between Saltsburg and Clarksburg, there may not be any traffic remaining on the Shelocta Running Track, in which case it would be a candidate for abandonment. Even though Norfolk Southern's Conemaugh Line carries less than five million annual gross tons, it is not included in the above listing because of its strategic importance. Included in the CSX-Norfolk Southern agreement with regard to acquisition of Conrail is a provision by which the proceeds of any sale of Conrail assets must be split 42-58 between the two railroads, for a period of five years. Inasmuch as this period terminates in 2004, Pennsylvania may expect a greater incentive by the two Class I's to sell former Conrail property.

Core and At Risk Rail Lines Conclusions

The high-traffic-density trunk lines of CSX and Norfolk Southern are considered the core or strategic rail lines in Pennsylvania, since they carry the most traffic and are therefore of key economic importance to the state (and to other states).

Lines with traffic density less than five million annual gross tons are considered at risk, and there are at least 126 such lines in the Commonwealth. The lines are considered at some risk because the traffic revenue may not be sufficient to provide adequate maintenance and improvement. The 96 lines with less than one million gross tons annually are especially at risk.

Class I rail lines with less than five million annual gross tons are deemed subject to potential sale or lease. There are four such CSX lines and 21 such Norfolk Southern lines.

Brief Description of Each Railroad

Aliquippa & Ohio River Railroad Co. (AORR) (formerly Aliquippa & Southern)

The Aliquippa & Ohio River Railroad Company is a switching and terminal carrier located in Aliquippa, Pennsylvania. Approximately 30 percent of its track miles are devoted to railcar storage. AORR rail service operates three to four days per week and on demand as needed.

A holding company, Summit View, Inc., filed with the Surface Transportation Board in November 2002 to acquire the 21-mile railroad and re-name it Aliquippa and Ohio River Railroad Company. Traffic of this switching and terminal railroad is interchanged with CSX at Aliquippa.[6]

[6] "Ohio Central to acquire 10th short line", *Progressive Railroading*, December 2002, page 14.

Allegheny & Eastern Railroad (ALY)

The Allegheny & Eastern Railroad, a 147.2-mile line connecting Erie and Emporium, is a Genesee & Wyoming Inc. subsidiary operated as the Buffalo & Pittsburgh Railroad. It has connections with CSX, Norfolk Southern (NS), and Oil Creek & Titusville. Large customers receive scheduled freight service, with changes negotiated; other customers are serviced on demand.

Allegheny Southern Railroad, Inc. (ASR)

The Blairsville, Pennsylvania-based Allegheny Southern Railroad owns six miles of track, connects to Norfolk Southern at Windber (near Johnstown) but is currently inactive. ASR's only customer lost its supplier, and as a result, the ASR "mothballed" its equipment. Although the customer has gained another supplier, ASR lacks equipment to provide rail service.

Allegheny Valley Railroad (AVR)

AVR operates a total of 24.57 track miles in Pennsylvania: Allegheny Branch main line with 19.06 miles; Brilliant Branch main line, 2.4 miles; River Branch main line, 0.75 miles; Brilliant Branch East Leg, 0.70 miles; Brilliant Branch West Leg, 0.47 miles; Plum Creek Branch Line, 0.42 miles and Indian Run Branch Line, 0.70 miles. The railroad connects with CSX and Norfolk Southern at Pittsburgh. Service frequency was not provided.

B&E Railroad (BE)

The B&E Railroad, owned by two coal operators and located at Windber, has been inactive since 1994 or 1995. Some track has been removed.

Belvidere & Delaware River Railway (BDRV)

The Belvidere & Delaware River Railway performs scheduled rail service three days per week and on demand as needed. There are two or three customers on the line, which interchanges with Norfolk Southern at Phillipsburg, New Jersey. BDRV operates the 16 mile Easton Branch, two miles of which are in Pennsylvania.

Bessemer & Lake Erie (BLE)

BLE connects Pittsburgh with Albion, in Erie County—a 124-mile main line carrying coal, ore, limestone, stone, scrap, steel, and miscellaneous cargo. Traffic density reaches 15 million gross tons (MGT). Branch lines from Albion connect that city with the port on Lake Erie at Conneaut, Ohio (Conneaut Branch, 13 miles), and with Norfolk Southern (Erie Branch, 9 miles). BLE states that Hilliards Branch

(Branchton-end of track (toward Hilliards)), 3.6 miles, has only one customer and shipments are less than 10 cars per year. The Kaylor Branch (Euclid-Kaylor), 18.1 miles, has been abandoned. BLE operates all trains on a demand basis, according to railroad officials; however, high traffic volumes typically mandate daily rail service. BLE is owned by Great Lakes Transportation LLC.

Brandywine Valley Railroad (BVRY)

A subsidiary of Bethlehem Steel, Brandywine Valley connects Coatesville, Chadds Ford and Sylmar (near Nottingham, Chester County), and operates 93 track miles, of which 58 are main track and 35 are sidings. The railroad provides rail service seven days per week, and connects with CSX and Norfolk Southern at Wilmington, Delaware, and with Norfolk Southern at Coatesville. In January 2002, BVRY bought 18 miles of track, between Modena and the Delaware border, from PENNDOT. This provides Bethlehem Steel's Coatesville plant, previously captive to Norfolk Southern, with access to CSX.[7]

Buffalo & Pittsburgh Railroad (BPRR)

The largest of Genesee & Wyoming, Inc.'s Pennsylvania affiliates, BPRR operates 213.9 miles in the Commonwealth, including the 184-mile (in Pennsylvania) Main Line Subdivision, which extends from the New York border through Bradford, DuBois and Butler to Eidenau (near Evans City in Butler County). BPRR rail service is provided daily.

C&S Railroad Corporation (CSKR)

CSKR operates 18 miles of mainline in Carbon and Schulkyll counties, connecting Jim Thorpe and Mahoney City. CSKR performs rail service one or two days per week.

Cambria & Indiana Railroad Company (CI)

The Cambria & Indiana Railroad Company is currently inactive. There are no plans to abandon this Bethlehem Steel coal-haul railroad, which is located in Cambria County.

Canadian Pacific Railway (CPRS)

Canadian Pacific Railway enters Pennsylvania from Binghamton, New York, passes through Scranton, and terminates at Sunbury. From Scranton and Sunbury, CPRS has trackage rights and haulage agreements to Newark, New Jersey, Philadelphia,

[7] "Steel Shipper Makes Play for Rail Competition", *Rail Business*, February 4, 2002, page 5.

and Washington, DC. There are three to five trains per day on the CPRS main line, and the Norfolk Southern traffic is being added to this.

Central Columbiana & Pennsylvania Railway, Inc. (CQPA)

CQPA operates 6.7 track miles in Pennsylvania, on excepted track between the Ohio border and Darlington (Beaver County). Rail service on CQPA, a 39-mile railroad, can be characterized as on demand, but typically consists of two to three days per week. Interchange is with CSX in Lowellville, Ohio, and Norfolk Southern in Youngstown, Ohio.

Chestnut Ridge Railway Company (CHR)

Chestnut Ridge Railway Company owns 6.1 total track miles, of which 2.4 miles are currently out of service. CHR operates the remaining 3.7 miles daily. This switching and terminal railroad connects to Norfolk Southern at Palmerton (Carbon County).

Conemaugh & Black Lick Railroad Company (CBL)

CBL, a Bethlehem Steel affiliate, operates 28 track miles in Cambria County, providing rail service to its customers five days per week.

Consolidated Rail Corporation (Conrail) Shared Assets (CR)

The Conrail shared assets area in Pennsylvania is a switching and terminal operation in Philadelphia, as well as along or near the Delaware River in Delaware and Bucks Counties. According to its website, Conrail operates about 250 miles in the Philadelphia-South New Jersey area. Association of American Railroads data shows 28 miles of railroad operated in Pennsylvania. Conrail also provides local service for customers located along Amtrak's Northeast Corridor between Philadelphia and Trenton. Frequency of rail service was not provided.

CSX Transportation, Inc. (CSX)

After Norfolk Southern, CSX operates the greatest number of track miles in the Commonwealth of Pennsylvania, approximately 1,147.

Three major CSX trunk lines are operated in Pennsylvania: Buffalo-Erie-Cleveland, Baltimore/Washington-Pittsburgh-Youngstown, and Baltimore-Philadelphia-Trenton. Additionally, the Mon Subdivision (connecting Brownsville and Pittsburgh) is a major coal-hauling line. Other branch lines provide service to much smaller traffic volumes, and trackage rights (for example, over SEPTA lines) enable CSX to reach additional rail customers.

Cumberland Mine Railroad (CM)

Cumberland Mine Railroad operates 16.8 track miles between Kirby and Grays Landing, mostly in Greene County. CM does not physically connect to any other railroad. Operations consist of up to six, 38-car coal trains per day, seven days per week, shuttled between a coal mine owned by the railroad's only customer and owner, RAG Cumberland Resources, and a rail to barge transload facility.

Delaware-Lackawanna Railroad Company, Inc. (DL)

Affiliated with Genesee Valley Transportation, Inc. of Batavia, New York, DL is based in Scranton, Pennsylvania. DL is contract operator to Lackawanna County Rail Authority, as well as Monroe County Rail Authority with a total of 88.7 track miles. DL provides daily rail service over its 18-mile Carbondale and 70-mile Pocono lines.

East Erie Commercial Railroad (EEC)

This switching and terminal operation in Erie is a five-days-a-week operation, the principal commodities carried being locomotives (90 percent) and plastic pellets. Traffic is interchanged with CSX, Norfolk Southern and Allegheny & Eastern.

East Penn Railways Inc. (EPRY)

East Penn Railways operates over 15 miles of track owned by Southeastern Pennsylvania Transportation Authority (SEPTA) in Bucks and Montgomery Counties. SEPTA leases the track to EPRY. There are two active customers; EPRY rail service is provided on demand. Traffic is interchanged with CSX at Telford.

Everett Railroad Company (EV)

The Duncansville-based Everett Railroad operates 26 track miles; EV shares common ownership and management with the Hollidaysburg & Roaring Spring Railroad Company. Service frequency was not provided. Commodity carried is refractory clay. Traffic is interchanged with Norfolk Southern at Hollidaysburg.

Franklin County General Authority (FCGA)

In 1997, Franklin County Commissioners created the FCGA, a municipal authority, to own and operate facilities formerly owned by the US Army at Letterkenny Depot. FCGA now owns 20+ miles of active and inactive track. Rail service is provided by BethIntermodal under contract. Interchange is with CSX. Customers include the U.S. Army, Agway and Gabler Trucking.

Gettysburg & Northern Railroad Company (GET)

Gettsyburg & Northern Railroad Company operates 25 track miles in Adams County, connecting Gettysburg (interchange with CSX) and Mount Holly Springs (interchange with Norfolk Southern).[8] Service frequency information was not provided.

Hollidaysburg and Roaring Spring Railroad Company (HRS)

HRS operates ten track miles in Blair County, connecting the two communities named in the railroad's title. Interchange with the Norfolk Southern is at Hollidaysburg. Service information, as with affiliated Everett Railroad, was not provided.

Johnstown America Corporation (JACX)

Johnstown America Corporation is a new freight railcar manufacturer and repair shop, using the former facilities and the freight car division of Bethlehem Steel Corporation. JACX owns approximately 3.5 miles of track; however, it is not a common carrier railroad and does not provide rail service. Johnstown America has two car erection facilities in Johnstown: Franklin Plant and Shell Plant. Both are served by the Conemaugh & Black Lick Railroad Company.

The Juniata Terminal Company (JTFS)

The Juniata Terminal Company is a one mile switching operation serving a passenger car facility and diesel repair shop in Philadelphia.[9] Interchange is on Amtrak's Northeast Corridor. Service frequency was not provided.

Juniata Valley Railroad Company (JVRR)

Part of the North Shore and affiliated railroads, JVRR is a switching and terminal railroad operating 11 track miles; the Maitland and Burnham Branches consist of seven and four miles, respectively. JVRR provides rail service three times per week or on demand.

[8] *The Official Railway Guide*, January/February 2003, page C40.
[9] *The Pocket List of Railroad Officials*, 4th Quarter 2002, Commonwealth Business Media, page C-41.

Kasgro Rail Lines (KRL)

This industrial railroad, owned by the manufacturer of the same name—Kasgro--which builds heavy duty flat railcars, is 3.5 miles in length and connects with CSX and New Castle Industrial Railroad in New Castle. The commodity hauled is new or refurbished rail cars originating in the Kasgro plant. This railroad provides service on an as needed basis. New Castle Industrial Railroad is the contract operator of this switching and terminal operation.[10]

Kiski Junction Railroad (KJR)

KJR, a 6.2 mile switching and terminal railroad serves Allegheny Ludlum, hauling steel scrap. It has connections with Norfolk Southern at Bagdad, Kiski Junction and Schenley. Service frequency is daily.

Knox & Kane Railroad (KKRR)

Knox & Kane Railroad operates 74 track miles in Clarion, Forest, Elk and McKean Counties. Connections are with Buffalo & Pittsburgh Railroad at Mount Jewett and Allegheny & Eastern Railroad at Kane. The railroad carries lumber, fiberboard and ballast.

Landisville Terminal and Transfer Company (LNVT)

LNVT, a switching and terminal railroad, operates 1.93 track miles between Landisville (Lancaster County) and End of Track. It connects with Norfolk Southern at Landisville. Rail service is generally provided twice per week or as needed.

Luzerne & Susquehanna Railway Company (LS)

LS operates three segments in a Luzerne County switching and terminal operation totaling 64 track miles: the 44-mile Wilkes-Barre Secondary, the 8-mile Kingston Secondary and the 12-mile Suscon Industrial track. All segments are FRA excepted track. LS has connections with Canadian Pacific Railway at Avoca (near Pittston), Buttonwood (Wilkes-Barre) and Hudson (Wilkes-Barre), and with the Reading Blue Mountain & Northern Railroad at Pittston.

Lycoming Valley Railroad (LVRR)

LVRR operates 33.6 track miles in Clinton and Lycoming Counties and is one of the North Shore and Affiliated Railroads. Lycoming Valley provides rail service five

[10] Phone conversation with Dale Berkley, President and Chief Operating Officer, New Castle Industrial Railroad and Kiski Junction Railroad, February 5, 2003.

days per week and on demand as required by its 20 customers. Norfolk Southern has trackage rights over LVRR. LVRR interchanges with Norfolk Southern at Muncy and Linden.

Maryland Midland Railway, Inc. (MMID)

MMID operates only 500 yards of track in Pennsylvania (at Blue Ridge Summit in Franklin County) and serves no customers in the Keystone State. Also, MMID leases an out of service rail right of way between Taneytown, Maryland, and Littlestown, Pennsylvania; this line is owned by the Maryland Department of Transportation. MMID has the sole right to restore the rail line, and suggests that the area south of Littlestown is "ideal for industrial development."[11]

McKeesport Connecting Railroad Company (MKC)

McKeesport Connecting Railroad Company is a switching and terminal railroad near Pittsburgh. MKC is typically a five day per week operation; additional service is provided on demand if requested by MKC's principal customer. MKC interchanges with CSX and Union Railroad at McKeesport. MKC is one of several railroads owned and operated by Transtar, a transportation subsidiary of U.S. Steel. It was announced in October 2002 that U.S. Steel plans to sell Transtar, Inc., but a sale has not, at this writing, been consummated. Transtar also owns and operates Union Railroad.[12]

Middletown & Hummelstown Railroad (MIDH)

MIDH is a 6.5 mile shortline serving its namesake cities, Middletown and Hummelstown. MIDH provides rail service to its customers on demand. Weight of rail on the line is only 90 pounds (per yard). MIDH connects with Norfolk Southern at Hummelstown and Middletown.

The Midland Terminal Company (MDLR)

The Midland Terminal Company was a 12.7 mile switching and terminal carrier located in Beaver County connecting to Norfolk Southern at Midland. MDLR was owned by its primary customer, J&L Specialty Steel. Rail service is on demand, and is largely determined by the operating schedule of its owner. MDLR carried over 11,000 carloads of steel products and steel scrap per year. The railroad, now known as Pennsylvania Southwestern Railroad, Inc., (PSWR) was sold to Watco Companies, Inc., in early 2003.

[11] Paul D. Denton, President and CEO, Maryland Midland Railway, Inc., in letter dated March 18, 2002, to John E. Brown, PENNDOT.
[12] "U.S. Steel to sell railroads", *Progressive Railroading*, November 2002, page 8.

The Monongahela Connecting Railroad Company (MCRR)

MCRR is an eight mile switching and terminal carrier (of which 30 to 35 percent is inactive) connecting with CSX in Allegheny County. According to railroad officials, service is diminishing and is now provided typically one day per week or on demand. A Surface Transportation Board decision (FD 34250, service date October 2, 2002) states that Almono LP filed "to acquire and operate approximately 2 miles" of MCRR's rail line between Metal Tech "on the north side of the Monongahela River and an interchange point with CSX" north of Glenwood Yard in Hazelwood, and further that Almono "intends to seek abandonment of the acquired line shortly after consummation of the transaction" but nonetheless that "the shipper would continue to receive rail service following abandonment."

Mount Union Connecting Railroad (MTC)

While the Mount Union Connecting Railroad is not yet active, it owns 2.6 track miles (1.8 miles main line) at the border of Huntingdon and Mifflin Counties, and anticipates that it will initially provide rail service on demand and projects eventually providing service five times per week. Track is currently FRA Class 1 or excepted.

New Castle Industrial Railroad (NCIR)

Formerly known as ISS Rail, Inc., NCIR owns and operates 11.7 track miles in and around New Castle, Pennsylvania. The railroad also operates under contract the 3.5-mile Kasgro Rail Lines, as discussed above. Service frequency is five or six days a week. NCIR hauls steel ingots and billets, steel scrap and rail cars for Kasgro. Interchange is with CSX and Norfolk Southern.

New Hope & Ivyland Railroad (NHRR)

The New Hope & Ivyland is a short line operating 17.5 miles between its namesake cities of New Hope and Ivyland in Bucks County. NHRR interchanges with CSX at Ivyland and provides rail service to its customers on demand. NHRR has six customers and hauls mostly petrochemicals, plastic resins and aggregates.

The New York, Susquehanna & Western Railway Corporation (NYSW)

NYSW operates only via trackage rights (over Norfolk Southern track, in Susquehanna County) in Pennsylvania. There are no NYSW customers in Pennsylvania.

Nittany & Bald Eagle Railroad Company (NBER)

Another member of the North Shore & Affiliated family of railroads, the NBER operates 55.4 miles of main track plus the 11.7 mile Bellefonte Branch, the 3 mile Pleasant Gap Branch and the 1.5 mile Mill Hall Industrial track. Nittany & Bald Eagle operates rail service five days per week and on demand; it connects with Norfolk Southern at Lock Haven and Tyrone. Norfolk Southern has trackage rights and operates coal trains between Tyrone and Lock Haven.

Norfolk Southern Railway Company (NS)

The Norfolk Southern Railway Company (NS) operates 2,507 miles of railroad in the Commonwealth of Pennsylvania. In terms of track miles, this is by far the largest railroad in the state.

NS operates the greatest traffic density railroad trunk line in the state; its east-west line connecting eastern Pennsylvania (Easton, on the New Jersey border, the Philadelphia area, and traffic to and from Perryville, Maryland) with Harrisburg, Pittsburgh and the Ohio border. Carrying an annual 120 million gross tons, this is one of the largest volume rail lines in the United States. A number of other major NS trunk lines also run through the Keystone State.

In February 2002 NS completed implementation of its Thoroughbred Operating Plan (TOP), aimed at diverting truck traffic. In July 2002 NS obtained trackage rights from the Reading Blue Mountain & Northern Railroad (56 Pennsylvania track miles) and from Canadian Pacific Railway (CPRS) for Delaware & Hudson Railway's mainline, and plans to use the lines to reroute two trains between Buffalo, New York, and Allentown, Pennsylvania.[13]

Thus NS has effected a rerouting of some of its traffic, reducing the number of trains on its Buffalo Line (Buffalo-Emporium-Keating-Lock Haven-Williamsport-Sunbury-Harrisburg) and increasing the number of trains over the CPRS line connecting Binghamton-Scranton-Dupont (southwest of Scranton) and the Reading Blue Mountain & Northern Railroad Company (RBMN) line connecting Dupont and Lehighton. This reportedly will save NS operating and maintenance expense over the Buffalo Line.[14]

[13] Jeff Stagl, "Sense and sensibility", *Progressive Railroading*, August 2002, page 23.
[14] *Railpace Newsmagazine*, October 2002, page 29.

North Shore Railroad (NSHR)

NSHR owns 37.8 track miles in Northumberland, Montour and Columbia Counties in Pennsylvania. NSHR provides rail service five days per week and on demand. Interchange with NS is at Northumberland, CPRS, at Sunbury.

Oil Creek & Titusville Lines, Inc. (OCTL)

Connecting with NS at Rouseville (Venango County), OCTL operates 15.8 miles of track extending to Titusville and East Titusville in Crawford County, carrying lumber, wax and plastics. Oil Creek & Titusville provides rail service approximately two to three days per week.

Penn Eastern Rail Lines, Inc. (PRL)

PRL operates over seven separated lines in southeastern Pennsylvania. Six of them have connections with NS at Bridgeport, Bristol, Emmaus, Manheim, Pottstown and Reading. A seventh segment, Topton-Kutztown, is owned by the Kutztown Transit Authority, lost its sole freight customer, and is currently a tourist operation.

Pennsylvania Southwestern Railroad, Inc. (PSWR)

See entry for Midland Terminal Company (MDLR).

Philadelphia, Bethlehem and New England Railroad (PBNE)

The PBNE switching and terminal carrier has been transformed from its former sole customer (Bethlehem Steel) operation to an intermodal and transload business on the former Bethlehem Steel site. There are 52 miles of yard track and eight miles of "main" track. PBNE operates rail service daily.

Pittsburgh, Allegheny and McKees Rocks Railroad Company (PAM)

PAM is a switching and terminal railroad operating approximately five track miles in Allegheny County. Interchange is with NS at McKees Rocks and North McKees Rocks. Rail service is provided daily and on demand. Commodities carried include styrene, fertilizer and minerals.

The Pittsburgh & Ohio Central Railroad Company (POHC)

Affiliated with the Ohio-based Ohio Central Railroad System, POHC is a 43 mile short line carrier operating out of McKees Rocks, carrying plastic, steel and chemicals. This railroad connects with CSX on Neville Island (near Pittsburgh), and with NS in Pittsburgh. Service is provided daily.

Pittsburg & Shawmut Railroad (PS)

A Genesee & Wyoming railroad, Pittsburg & Shawmut Railroad operates three lines between Freeport (Armstrong County) and Driftwood (Cameron County), including a branch line to Sligo (Clarion County). Large customers are scheduled, with changes negotiated with them; other customers are serviced on demand. Connections include those with NS at Driftwood and Freeport.

R.J. Corman Railroad Company (RJCP/RJCN)

R.J. Corman operates two rail line clusters in Pennsylvania. The "Pennsylvania Lines," (RJCP) consists of 207 miles operated between Keating (Clinton County) on the east and Dixonville (Indiana County) on the west, McGees Mills (Clearfield County) on the north and Cresson (Cambria County) on the south. Interchange is with Norfolk Southern at Cresson and Keating. The 19.3-mile Curwensville-Luthersburg line (C&M Railroad) has been abandoned.

The RJCN "Allentown Lines" is a 6.4 mile switching and terminal operation connecting Allentown, East Penn Junction (also Allentown) and White Hall (West Catasauqua), interchanging with NS at East Penn Junction. RJCN rail service in Allentown is on demand, but typically is provided five days per week.

Reading, Blue Mountain & Northern Railroad Company (RBMN)

RBMN or "Reading & Northern", as it is often called, operates a total of 266 route miles on 16 lines in eastern Pennsylvania, generally between Scranton and Reading. RBMN operates rail service six days per week and on demand over a network which ranges from main line track to industrial track.

Owing to a Class I's inability to provide consistent service, RBMN capitalized by becoming Proctor & Gamble's exclusive carrier for more than 4,000 annual carloads of pulp board from the P&G Mahoopany, Pennsylvania, plant.[15] The Reading Blue Mountain & Northern Railroad is also being used by NS, to carry traffic between Buffalo and Harrisburg.[16] The Commonwealth recently announced state funding in the amount of $750,000 for an infrastructure project for the Reading Blue Mountain & Northern Railroad.

[15] "Finding A Way: How indepent short lines are surviving—even thriving—in a rough-and-tumble rail marketplace", *Progressive Railroading*, August 2002, page 30.
[16] Sam Botts, "NS-CN Runthrough Trains 40T/41T Rerouted from NS Buffalo Line onto NS Southern Tier, CP/D&H and Reading & Northern" *Railpace Newsmagazine*, pages 28-29.

Shamokin Valley Railroad Company (SVRR)

SVRR operates 21.8 track miles in Northumberland County. Shamokin Valley is a member of the North Shore & Affiliated family of railroads. SVRR, which carries grain products, automotive chassis, soybean products, graphite, plastics and wood pulp, provides rail service three times per week and on demand as required. SVRR connects with Canadian Pacific at Sunbury, NS at Northumberland and RBMN at Locust Summit (east of Shamokin).

SMS Rail Service, Inc. (SLRS)

SLRS, a switching and terminal railroad operating operating 4 miles of track within the Penn Warner Industrial Park near Morrisville (Bucks County), and interchanging with CSX and Norfolk Southern, recently acquiring Penn-Jersey Rail Lines Inc. (PJRL).[17] SLRS provides its customers with rail service daily. Lumber, chemicals and paper are among the commodities carried.

Southwest Pennsylvania Railroad (SWP)

SWP operates 65 track miles between Greensburg and Uniontown. An increase in interchange traffic is expected after completion of a bulk/intermodal facility at the former Volkswagen plant in New Stanton.[18] SWP connects with CSX at Connellsville, NS at Radebaugh, and Wheeling & Lake Erie at Connellsville and Everson (west of Connellsville).[19] Service frequency is unknown.

Steelton & Highspire Railroad Company (SH)

Affiliated with Bethlehem Steel, Steelton & Highspire Railroad is a switching and terminal operation carrying pipe and steel products. SH connects with NS at Steelton and Highspire. SH operates rail service five days per week and on demand.

Stourbridge Railroad Company (SBRR)

Operating 24.8 track miles in Wayne and Pike Counties, SBRR is owned by the North Shore & Affiliated group of railroads. SBRR carries print paper and provides rail service once per week and on demand.

[17] Surface Transportation Board, Case Docket No. FD 34300 0, Service Date January 17, 2003.
[18] David Ori and Steve Gerbracht, "The Wheeling Way", *Railpace Newsmagazine*, January 2003, page 23.
[19] *The Official Railway Guide*, Freight Service Edition, January/February 2003, page C42.

Strasburg Rail Road Company (SRC)

The Strasburg Rail Road Company operates 4.6 miles in Lancaster County, Pennsylvania. SRC is principally a tourist railroad; however, it does move a few carloads of freight (plastics) per year, on request.

Towanda-Monroeton Shippers' Lifeline, Inc. (TMSS)

TMSS owns six track miles in Bradford County, carries grain and fertilizer, and is connected to NS at Towanda. Rail service is three days per week during ten months of the year and six days per week the other two months.

Turtle Creek Industrial Railroad, Inc. (TCKR)

Turtle Creek Industrial Railroad is an eleven mile switching and terminal railroad providing daily rail service to local industries and connecting to NS at Trafford (Westmoreland County). TCKR carries lumber, pipe, steel piling and durabond.

Tyburn Railroad Company (TYBR)

Tyburn Railroad is a 3.5 mile switching and terminal railroad, carrying chemicals and fertilizer and connecting to CSX and NS at Fair (near Morrisville). TYBR operates rail service daily and on demand.

Union County Industrial Railroad Company (UCIR)

A member of the North Shore & Affiliated group of railroads, UCIR operates 13 track miles in Union and Northumberland Counties. Union County Industrial provides rail services three days per week and on demand. UCIR interchanges with CPRS at Sunbury, with NS at Milton.

Union Railroad (URR)

URR is a switching and terminal operation in Allegheny County connecting North Bessemer (near Penn Hills) with Duquesne and Clairton. Connections are with CSX, NS, Wheeling & Lake Erie, Bessemer & Lake Erie and McKeesport Connecting Railroad. Rail service is provided seven days per week. URR is one of several railroads operated by Transtar, Inc., a transportation subsidiary of U.S. Steel.

Upper Merion and Plymouth Railroad Company (UMP)

A subsidiary of Bethlehem Steel Corporation, UMP is a switching and terminal railroad operating six days per week and on demand. The railroad carries steel and coal tar, and connects with NS at Swedeland.

Wellsboro & Corning Railroad Company (WCOR)

Part of the North Shore & Affiliated group of railroads, WCRR operates a total of 35.2 track miles, of which 24.2 are in Tioga County, Pennsylvania; the remaining trackage is located in Steuben County, New York. Wellsboro & Corning operates rail service three days per week and on demand. WCOR connects with CPRS and NS in Corning, New York.

Western New York & Pennsylvania Railroad, LLC (WNYP)

WNYP is a short line operating in New York and Pennsylvania, carrying industrial sand, corn, lumber and plastics. 52 track miles are located in the Commonwealth. WNYP provides rail service daily to its customers and on demand as needed. Interchanges include NS at Meadville and Olean, New York, and with Allegheny & Eastern at Corry.

A subsidiary of Livonia, Avon & Lakeville, the Western New York & Pennsylvania Railroad took over the Oil Creek & Titusville Corry-Meadville line, allowing WNYP to establish a through freight operation, Meadville--Olean, New York—with NS connections at each end. Conrail attempted to rip up the Meadville segment in 1995.[20] East of Olean, the line runs to Hornell, and the Meadville-Hornell routing will be the most direct between Norfolk Southern's Conway Yard in Pittsburgh and New York's Southern Tier.[21] The former Erie Railroad main line is an east-west short cut around Buffalo, and is a "high clearance" route.[22]

The Wheeling & Lake Erie Railroad Company (WE)

The WE Bellevue (Ohio)-Connellsville (Pennsylvania) main line serves 16 stations in southwest Pennsylvania, interchanging in Pennsylvania with CSX at Connellsville and Pittsburgh, and with Union Railroad at Mifflin. The WE Pittsburgh Subdivision, which extends from Connellsville to Rook Yard in Pittsburgh, also interchanges with the Southwest Pennsylvania Railroad (SWP) at Everson, three miles west of

[20] "Erie comeback", *Trains*, April 2002, page 22.
[21] "Rail Notes", *Rail Business*, February 11, 2002, page 7.
[22] Sandy Burton, "Western New York & Pennsylvania Works to Reopen Erie Main Line", *Railpace Newsmagazine*, October 2002, page 30.

Connellsville.[23] The Pittsburgh Subdivision carries steel, scrap metal and grain; current traffic is "minimal". A local works daily to provide service to customers at Mifflin and Monessen, and to the SWP interchange at Everson.[24] WE's Rook Subdivision connects Pittsburgh with Ohio.

PENNDOT is anticipating that Canadian National will interchange with or have trackage rights on WE to provide service to the Sony plant and Westmoreland County Industrial Development Corporation Intermodal Facility.

White Deer & Reading Railroad (WDRR)

White Deer & Reading Railroad, a 2.5-mile line connecting White Deer and Allenwood, suffered storm damage in 1996 and is out of service. If potential rail customers develop, the line could be restored to service.

York Railway Company (MPA)

A recent addition to the Genesee & Wyoming family of railroads, York Railway operates approximately 40 track miles which can be divided into the following segments: Yorkrail main, East Branch, Central Branch, West Branch, Lincoln Yard, East Yard, Hanover Yard and Poorhouse Yard. York Railway provides rail service on its lines daily.

Key Issues

Introduction: Overall Objective

The objective of this section is to project key issues facing the railroad industry over the coming five years, and discuss specific needs, challenges and opportunities specifically relevant to the Commonwealth of Pennsylvania's transportation system. This portion of the study is intended to be a vision of the future including a discussion of specific ways by which Pennsylvania can influence the optimum development and use of its freight rail system in a manner which best serves the interest of Pennsylvania's citizens.

[23] David Ori and Steve Gerbracht, "The Wheeling Way", *Railpace Newsmagazine*, January 2003, page 23.
[24] David Ori and Steve Gerbracht, page 25.

Background

Pennsylvania has one of the best, if not the best, state rail preservation and development programs in the country. No state exceeds Pennsylvania in number of railroad operating companies, while only four states—California, Illinois, Ohio and Texas—exceed the Keystone State in railroad mileage operated.[25] Pennsylvania has invested $190 million in its rail freight infrastructure since 1990. See Table 3. These investments include the Rail Freight Assistance Program ($64 million), Capital Budget Grants ($90.7 million) and doublestack clearance projects ($35.8 million). Excepting the doublestack clearance projects, virtually all of this investment has been in regional and small railroads, in recognition of the fact that these railroads are a vital component of the state's transportation system and economic well-being.

Rail abandonments have been widespread in the United States since passage of national railroad reform legislation, ending most federal regulation of railroads, over 20 years ago. Given a greater opportunity to control costs and generate revenues, major (Class I[26]) railroads sold, abandoned or leased their less profitable lines. This proved to be an opportunity for others; a great many short line railroads were formed to operate lines divested by Class I railroads. In other cases, rail lines were abandoned and the real estate was used for other purposes. To some extent assisted by the federal government, for example through the Local Rail Freight Assistance (LRFA) program[27], Pennsylvania has been one of several states which have worked to preserve rail infrastructure; this program has preserved and developed many rail lines which would otherwise have been abandoned, and therefore has been very important in meeting present and future transportation needs. Despite Pennsylvania's robust state rail program, numerous issues bear watching and require evaluation, in order to assure the continued benefits of rail service to the Commonwealth's citizens and economy. This part of the study is intended to discuss those issues and to suggest directions for Pennsylvania's continued efforts to sustain and develop railroad transportation and the industries that depend upon it.

[25] "Railroad Facts 2002 Edition", Association of American Railroads, page 46.
[26] Class I railroads are the largest railroads, so classified by the Surface Transportation Board by their level of operating revenue, adjusted annually for inflation. Class I railroads operating in Pennsylvania are Canadian Pacific Railway Company, CSX Transportation and Norfolk Southern.
[27] The last federal funding under the Local Rail Freight Assistance program was in 1995.

Table 3
Pennsylvania State Investment in Rail Freight Infrastructure
($ in millions)

State Fiscal Year	RFAP[a] Grants	Capital Budget Grants	Conrail Doublestack[b]	Total
1990	$2.80	$4.80		$ 7.60
1991	2.80	4.80		7.60
1992	2.80	4.90		7.70
1993	3.60	4.50		8.10
1994	2.80	5.20		8.00
1995	3.60	5.70		9.30
1996	3.60	8.30		11.90
1997	8.00	7.90		15.90
1998	8.50	8.20		16.70
1999	8.50	7.50		16.00
2000	8.50	11.00		19.50
2001[c]	4.25	8.00		12.25
2002	4.25	9.90		14.15
Multi-year	0	0	$35.80	35.80
TOTAL	$64.00	$90.70	$35.80	$190.50

(a) Rail Freight Assistance Program
(b) The Doublestack projects were completed and funded between 1991 and 1996
(c) State budgetary constraints caused RFAP grant funding to be reduced. The 2002 budget continued the reduced funding level for RFAP grants.

Source: Pennsylvania Department of Transportation.

At the beginning of this study, a question arose: What explains Pennsylvania's attention to and investment of public funds in railroading? Many other states have suffered abandonment of large portions of the their rail networks over the past two or three decades. What makes Pennsylvania different? There are a number of factors, starting almost 175 years ago, when the Commonwealth began construction of its Main Line of Public Works, a 400 mile series of canals, short line railroads and inclined planes between Philadelphia and Pittsburgh. The purpose was to counter the emergence of New York, which had superseded Philadelphia as the nation's leading port after completion of the Erie Canal. Over time the Main Line evolved into the Pennsylvania Railroad, which for a century was the dominant rail carrier of the nation. So the State has an intense historical link to the railroad industry. More recently, this tie has been given expression with Pennsylvania's investments in rail freight infrastructure, which helps railroads—in particular regional and small railroads—maintain their infrastructure. Also of considerable importance is the liaison between PENNDOT and railroads, railroad shippers, metropolitan planning organizations, local development districts and public rail authorities. As one respondent said in answer to a question, asked under the survey of planning organizations and public rail authorities which is a part of this study, PENNDOT "provides the connective tissue between public agencies and private parties." A rail authority executive director said, "The RFAC (Pennsylvania's Rail Freight Advisory Committee[28], which meets quarterly) provides an excellent mechanism by which outside parties can interface with Department officials; timely interchange of information allows the state to be pro-active on railroad matters." Another rail authority executive director said, in answer to the question regarding effectiveness of PENNDOT activities and programs, "Very effective; they are our lifelines." A county local development district staffer replied, in answer to the same question, "They are very effective, very committed and responsive." A county transportation planner, again answering in regard to the same program, said, "Very effective. Excellent service." In summary, the answer to the consultant's question appears to be: There is funding, there is an "open door", there are regular meetings, and there is awareness that the government of Pennsylvania cares about railroads and the businesses they support.

Finally, another important background feature deserving consideration is the position of railroads as an important component of overall transportation planning in the Commonwealth. "PennPlan MOVES" is Pennsylvania Statewide Long Range Transportation Plan 2000-2025. There are several portions of this thorough and detailed report which are relevant to freight rail in the state of Pennsylvania. For example, the report includes the following as goals of Pennsylvania:

[28] Members are appointed by the Governor of Pennsylvania, which is yet another indication of the attention given to the railroad transportation mode in the Keystone State.

(1) Clear all strategic rail freight corridors for double stack capacity. This is to be done in cooperation with private rail interests.
(2) Eliminate at-grade crossings of freight lines by state-owned roads within strategic rail corridors.
(3) Support the creation and expansion of intermodal rail freight facilities that are linked to the National Highway System.
(4) In cooperation with private rail interests, invest in doublestack and signal upgrade projects within strategic rail freight corridors.
(5) Specific goals within the report include 100 percent doublestack clearance in strategic rail corridors, and elimination of at-grade crossings of freight lines by state-owned roads within strategic rail corridors by July 31, 2015.

Discussion of Issues

1. Pennsylvania's Rail Investments and Public Funding

State funding

As stated above, Pennsylvania has funded rail freight infrastructure by means of the Rail Freight Assistance Program (RFAP), Capital Budget Grants and doublestack clearance projects. RFAP was created by the Commonwealth's Rail Freight Preservation & Improvement Act of 1984, No. 119, which provides funds to preserve essential rail freight service and stimulate employment through generation of new or expanded rail freight service. Since 1997, RFAP projects have helped create 9,368 jobs and helped reduce highway congestion by keeping approximately 2.1 million trucks off the highway.[29] The funding appropriation for RFAP was increased from $3.5 million in 1995 to $8.5 million through the fall of 2001. Capital Budget Grants have typically been funded at $10 million annually.

A widely-held and strongly-felt opinion, recorded in the survey of Pennsylvania's planning organizations and public rail authorities, is that more RFAP funding is required. One short line operator recently stated, "The funding is not enough to take care of the serious needs. The Rail Freight Assistance Program needs to be restored to $8.5 million per year. In addition, the Capital Budget allocation from the Governor's Office would need to be doubled to $20 million per year to take care of most of the significant needs."

Federal funding

Funds for the Local Rail Freight Assistance program were last appropriated in 1995. Congress never appropriated funds for a similar program in the 1998 Transportation

[29] Data provided by PENNDOT.

Efficiency Act for the 21st Century (TEA-21), the current authorization. A new federal transportation authorization is expected in 2003.

For example, at least two recent Pennsylvania projects—Delaware Valley Regional Planning Commission's (DVRPC's) Brandywine Valley Railroad Company wye track near U.S. Highway 1, and Westmoreland County's Rail Freight Terminal—have taken advantage of another funding opportunity available in the federal Congestion Mitigation and Air Quality Improvement Program (CMAQ).

TEA-21 also authorized the Railroad Rehabilitation and Improvement Financing Program (RRIF), which provides direct loans and loan guarantees; this program has been plagued by a very long start-up time and onerous administrative requirements. Efforts are being made to make this program more "user friendly".

Expected Funding Needs

Given projected substantial growth in surface freight traffic over the coming two decades, it is reasonable to assume that current funding levels will be inadequate to provide continued development of Pennsylvania's rail freight system. Even Class I railroads may look for infrastructure assistance, given their high capital investment requirements and relatively high cost of capital.

At a national level, this is the conclusion of the "Freight-Rail Bottom Line Report" of the American Association of State Highway and Transportation Officials (AASHTO), released in January 2003 and discussed later in this paper (see issue number 6). The Bottom Line Report concludes that "A public-policy-driven expansion of the freight-rail system supported by public sector investment is needed if the system is to maintain its share of the forecast tonnage and help relieve pressure on the highway system. Without coordinated public and private action, congestion and capacity constraints will weaken the freight industry, the economy, local communities, and the environment."[30]

There are a number of categories in which state (as well as federal) funding of freight railroad infrastructure may be justified, for example:

- Elimination of "choke points" resulting from out-of-date infrastructure
- Improvement of capacity to permit expected increased traffic volumes, both freight and passenger
- Improvement of capacity to allow for increased train speed
- Replacement of high capital cost items, e.g., bridges
- Upgrade of track and bridges to accept 286,000-pound railcars

[30] "Transportation: Invest in America: Freight-Rail Bottom Line Report", AASHTO, released in January 2003, page 80.

- Provide rail service essential to local industry

Public Benefits

A number of public benefits result from freight rail projects; these include:

- Congestion mitigation
- Air quality improvement
- Improved transportation safety
- Mitigating truck traffic growth on highways
- Creation and retention of jobs and economic development

As an example, the Alameda Corridor railroad project in California provides numerous public benefits including elimination of a great number of grade crossings and therefore enhancement of urban highway traffic flows, improved rail transportation times, improved air quality and increased safety.

Reauthorization

The new federal transportation authorization, due to be written and enacted in the current Congress, is an important opportunity for Pennsylvania, which should convey its recommendations to Congress regarding federal freight rail funding, flexible use of transportation funding, "earmarks" to authorize important railroad projects, as well as any new initiatives deemed advantageous to Pennsylvania. Important new railroad legislation is possible only where there appears a strong demand, and Pennsylvania's delegation should receive the State Government's recommendations.

2. Class I Railroads

Potential Rationalization (Abandonments and Sales) and Competition

For most states, the basic concern related to Class I railroad line rationalization has been disappearance of railroad infrastructure and associated loss of the rail mode presence, and loss of economic opportunity. Pennsylvania met this challenge with considerable success as a result of its vigorous program of freight rail assistance. However, the threat continues. In 2001 Norfolk Southern announced "line rationalization" (selling or leasing low-density lines) programs.[31] The editor of *Trains* believes more track is likely to be abandoned in the near future because of three factors:

[31] "Line rationalization moves forward", *NS newsbreak*, August 2001, page 2.

- Declining exports of grain and coal
- To provide cash, and reduce cost
- Government transportation policy, which "does not prioritize transportation modes according to economic and social needs as much as it does according to political needs" [32]

With increasing inability to utilize urban real estate for industrial purposes, preservation of rural rail network is an important safeguarding of Pennsylvania's economic future.

Another concern is disappearance of rail competition, resulting from agreements which prospective short line operators are obliged to sign as part of a sale or lease transaction regarding Class I railroad property. It is in Pennsylvania's interests to preserve, wherever possible, competition among the railroads which serve the state. It is important that Pennsylvania's short line railroads have access to both CSX and Norfolk Southern where possible, inasmuch as these two railroads have the rail networks which include most eastern U.S. origins and destinations, and any future transcontinental merger will see those two railroads paired with the two major western U.S. railroads, BNSF and Union Pacific. (The existence of Canadian National and Canadian Pacific railways adds further complexity to the merger prospects.) The main point here is that it is in the State's interest to obtain, where possible, small railroad access to more than one Class I railroad.

Thus Pennsylvania should take advantage of any opportunity to promote competitive interchange, so that Pennsylvania regional and short line railroad customers are provided competitive access to more that one Class I railroad. (See related comment under paragraph number 3, Short Line Issues, Paper Barriers.)

What opportunities might arise? Future rail investment by the State, for example, development of a new industrial park with rail access, should provide for competitive access where possible, either through siting of the new facility or through agreement made with the railroads which benefit from the new facility. Another opportunity is in any merger or other Surface Transportation Board action in which a railroad seeks Commonwealth support.

Yet another opportunity for competitive access may lie in developing connectivity between short line railroads where it does not exist, creating flexible paths to more destinations. Given its investment in small railroads, Pennsylvania has a vested interest in their viability.

[32] Mark W. Hemphill, "Too much track … still?", *Trains*, February 2003, page 4.

Leasing and Improvement of Branch Lines

One concern is the leasing of lines by Class I's to short line operators, as opposed to the selling of lines. In the leasing arrangement, short line operators may improve their fixed plant with the help of the state, and the Class I's get a better piece of railroad back than they had before, at the expense of taxpayers. The concern here is that there be a public payback. (The five-year use stipulation which is a component of state funding agreements tends to alleviate the concern.)

For example, Norfolk Southern announced in January 2001 its plan to trim 3,000-4,000 miles of track from its system.[33] As of August 2001, the line rationalization program had leased 200 miles of track to four short lines and had about 1,700 more miles progressing disposition or under active review.[34]

One way of addressing this concern, in addition to the five-year use stipulation, would be to evaluate the benefits which may occur to the Commonwealth in any project proposed to receive state assistance, in the same sense that expenditures of federal LRFA funds required that benefits exceed costs. In this way, it could be ascertained that public funds result in public benefits. As one example, a public benefit of privately-owned freight railroads is that they take trucks off the publicly-owned highways, thus reducing congestion, improving air quality, reducing accident costs, improving transportation mobility and reducing highway maintenance costs. This last issue—reducing highway maintenance costs—was a standard benefit in many of the benefit-cost analyses prepared by states and their consultants in order to obtain Local Rail Freight Assistance (LRFA) funding from the Federal Railroad Administration. Even though LRFA funding is no longer available, reduction in highway maintenance is no less a benefit. The Kansas Department of Transportation sponsored a recent study, "Impact of Kansas Grain Transportation on Kansas Highway Damage Costs", which describes the increasing size of railcars and the Class I railroads' preference for unit trains serving centralized loading facilities on the main lines, and the resulting longer hauls assuming grain truck movements, and concludes that the short line railroad system in the study area saves Kansas $49.5 million in annual pavement damage cost, assuming an average damage cost of incremental truck traffic amounting to $0.17 per truck mile. A similar study could be performed for Pennsylvania, or any other state. Or a study could be performed to quantify for Pennsylvania all the benefits of its small railroad industry.

In any event, it is appropriate that the State protect the public interest by evaluating each infrastructure improvement on its own merits, comparing the costs

[33] "NS Track Dump: A Boon For Shortlines?", *Rail Business*, February 12, 2001, pages 1, 6 and 7.
[34] "Line rationalization", *NS newsbreak*, August 2001, page 2.

with the public benefits. The evaluation could consider a number of factors, including the following.

- Lease provisions, including term of lease
- Number of customers on the line, and traffic volume
- Specific results expected of the infrastructure improvements
- Previous State investment in the line, and results of that investment
- Degree of cooperation of the Class I with Pennsylvania

Public-Private Partnerships

Wary of any additional federal government regulation, Class I railroads have been unwilling to discuss government funding assistance until recently. Perhaps the most infrastructure-intensive industry (relying as it does on its network of "spaghetti" real estate), railroads have had, in recent years, a considerable challenge in earning the profits demanded by Wall Street. In order to increase the returns, railroads have, among other measures, shrunk back from heavy infrastructure spending. Class I railroad capital spending has declined nearly 25 percent since 1998.[35]

It has not escaped notice by the railroads that their greatest competitor, motor carriers, enjoy use of government-funded infrastructure. In any event, recent statements and actions by Class I railroads (with the notable exception of Union Pacific, the largest of them all) display a new willingness, even eagerness, to accept federal funding (under the right circumstances). Norfolk Southern proposed that the Commonwealth of Virginia assist the railroad in improving its rail line paralleling interstate I-81 through Virginia, claiming a benefit to the state that some truck traffic will be diverted from that highway. At the January 2003 annual meeting of the Transportation Research Board, Norfolk Southern, BNSF and Canadian Pacific argued for public funding in support of short-haul intermodal rail and touted its public benefits. The Alameda Corridor in California has become the archetypical public-private model. Indeed, one need not go any further than the borders of Pennsylvania to witness successful public-private partnerships; the Commonwealth's successful investments in rail freight infrastructure have already been noted.

Recent Class I statements show a willingness to accept public funding under the right conditions, which they assert means "a clear public benefit" but which translated means "no strings". BNSF Chairman, President and CEO Matt Rose comes right out and says "we also need more public/private partnership initiatives

[35] Lee A. Clair and John T. Kelsh, "Continued rough weather?", *Railway Age*, December 2002, page 24.

to improve the nation's rail infrastructure." He mentions "success of projects like the Alameda Corridor, ... [and] Kansas City's Sheffield Flyover", states that the "rail industry needs to be able to improve its returns to fund its infrastructure investment to remain strong and competitive, and to respond to efficiently to future freight demands and the increasing need for passenger rail."[36] CSX President Michael Ward states that "when there are public/private partnership opportunities for rail infrastructure investment that result in measurable public benefits, it makes sense for the public to pay for that benefit."[37] David Goode, Chairman, President and CEO of Norfolk Southern, endorses rail infrastructure public investments "that provide public benefits while helping strengthen the national rail network."[38]

The Government of Canada recently indicated willingness to provide government help to strengthen infrastructure, with the argument that rail "can play a significant role in addressing traffic congestion and easing the impact on the environment caused by emissions from transportation"[39]. A number of bills recently introduced in the U.S. Congress suggest similar federal-level thinking on this side of the border. The argument has been strengthened by (1) trends showing much greater passenger vehicle use of U.S. highways (increase in vehicle-miles-traveled of 130 percent just in the past 25 years), and (2) U.S. Department of Transportation predictions of a doubling of surface transportation volumes over the coming two decades, a projection which suggests optimization of the use of surface transportation infrastructure with regard to all modes, and improvements to facilitate connections and transfers between modes.

It is in Pennsylvania's interests to develop and support public-private partnerships.

Mergers

Additional mergers, resulting in the pairing of Class I's to form single-line (one-railroad) transcontinental service, are perhaps inevitable, even though there are at present some contrary voices among railroad executives. No Class I railroad will ignore a state's desire to discuss prospective merger impacts before the Surface Transportation Board (STB) acts upon a merger application, since the railroads will desire to minimize any adverse comments made to the STB. The limited number of future merger combinations suggests that the Commonwealth should determine its strategy now. When the next mergers are announced, Pennsylvania should open a dialog with the railroads planning to merge (perhaps with expert consultant assistance to determine the views of Pennsylvania rail freight users and small railroads, and to develop the strategy).

---

[36] Matt Rose, quoted in "Railroading in 2003", *Railway Age*, December 2002, page 21.
[37] Michael Ward, quoted in "Railroading in 2003", page 22.
[38] David Goode, quoted in "Railroading in 2003", page 22.
[39] Canadian Transport Minister David Collenette, as quoted in "Canada explores public-private partnerships", *Railway Age*, July 2002, page 15.

3. Small Railroads

Their Growth and Importance

Since 1982 the Interstate Commerce Commission (now Surface Transportation Board) generally has declined to impose "income protection" as a condition of line sales which have resulted in the creation of small railroads,[40] and thus short line and regional railroads have been free to determine their own labor rates. This (and those aspects of deregulation which make it easier for large railroads to sell off branch lines) has been one of the most important factors in the growth of a flourishing small railroad industry, where wage rates are not propped up artificially by government decree. Thus small railroads have been created and fill a vitally important niche between numerous railroad customers and the long-haul trunk lines of the Class I railroads.

Small railroads (short lines, regionals, and switching and terminal operations) generally provide the interface between railroad customers in the relatively smaller locations and long-haul railroad transportation. Class I railroads are drawn more to large customers, bulk commodities (e.g., coal, grain, chemicals) and transportation over long distances. Small railroads, on the other hand, are quite amenable to short-distance hauls and have become the feeder lines for the big railroads. By the very nature of their operation, short lines and regionals are closer to the customer and more "customer friendly". The small railroads provide "on demand" service to their customers. This direct linkage between the small railroad and its customer is especially important to Pennsylvania, which has approximately 60 small railroads, as mentioned, more than any other state. This makes the small railroads as important to Pennsylvania's economy as the many Pennsylvania industries they serve, and this is the foundation of the Keystone State's rail preservation and development program.

Infrastructure Upgrades Needed

A number of Pennsylvania's short line railroads, in response to the survey question regarding important issues, stated that the need to upgrade infrastructure in general, and in some cases in order to move heavier (286,000-pound) railcars, is a key issue, and that state assistance is required to do this. One short line railroad stated, "RFAP funding is critical to our survival." Another said, "Without state aid, we'd be out of luck."

According to material entered into the Congressional Record on November 15, 2001, by Senator Specter, speaking on behalf of an amendment he was

[40] Frank N. Wilner, *Railroad Mergers: History, Analysis, Insight*, 1997, page 265.

considering adding to a stimulus package that was intended to add capital grants funds for short line railroad projects, 60 percent of Pennsylvania's short line and regional railroad infrastructure is in need of extensive rehabilitation, including bridges. This material, from a survey conducted by the Keystone State Railroad Association, indicates that short line and regional railroads—excepting the Bessemer & Lake Erie, which has heavy load infrastructure—are capable of handling the heavier 286,000-pound railcars on only 70 percent of their track. Short line and regional railroads also indicate that more than 300 rail crossings are in need of serious rehabilitation and repair. Projects that could be undertaken to address Pennsylvania railroad infrastructure needs total some $280 million. The report goes on to discuss economic and national security benefits of railroad infrastructure projects, and to mention the "dramatic need to invest in our major transportation infrastructure."[41]

North America's Class I railroads have accepted, as the new interline standard, the 286,000-pound gross weight railcar. Formerly, the maximum weight car was 263,000 pounds. Track and bridge structures of America's short line railroads are in many cases insufficient to support heavier-axle-load railcars, and furthermore small railroads are least able financially to improve their infrastructure. The issue could result in many short line railroads going out of business. This is a nationwide issue; it will no doubt be a reauthorization issue; Pennsylvania's congressional delegation should make the Keystone State's position known on Capitol Hill.

Comments by two short line railroad operators, in response to the survey which was a part of this study, indicate that assistance is needed in the upgrading and rehabilitation of grade crossings. One operator states that many grade crossings need major rehabilitation or outright replacement.

Short Line/Regional Railroad Consolidations/Acquisitions/Groupings

Just as mergers and acquisitions have characterized major railroads and indeed big business over the past decade, so also there have been consolidations among small railroads. Rail America has grown (carloads and revenues), taking advantage of big railroads' selling off relatively low density branch lines. There are a number of small rail "groupings" in Pennsylvania. Holding company Genessee & Wyoming Inc. operates Allegheny & Eastern Railroad, Inc. (ALY), Bradford Industrial Rail, Inc. (BIR), Buffalo & Pittsburgh Railroad, Inc. (BPRR), Pittsburgh & Shawmut Railroad, Inc.(PSR), and York Railway Company (YRC). Bethlehem Steel (now in reorganization, which increases the precarious status of its railroads) operates Brandywine Valley Railroad Company (BVRY); Cambria and Indiana Railroad Company (CI); Conemaugh & Black Lick Railroad Company (CBL); Philadelphia,

[41] American Short Line and Regional Railroad Association release, taken from ASLRRA web site, quoting November 15, 2001, Congressional Record (Senate).

Bethlehem and New England Railroad (PBNE); Steelton & Highspire Railroad Company (SH); and Upper Merion & Plymouth Railroad Company (UMP). Transtar, a U.S. Steel subsidiary which is being sold to Apollo Management L.P., operates McKeesport Connecting Railroad Co. (MKC) and Union Railroad Co. (URR),[42] and North Shore Railroad Company operates Juniata Valley, Lycoming Valley, Nittany & Bald Eagle, Shamokin Valley, Stourbridge, Union County Industrial and Wellsboro & Corning.

The question arises whether the trend toward more small railroad "groupings" advantages Pennsylvania's rail served customers. Such clusters may improve efficiency and customer satisfaction through economies of scale, management expertise and the like, and, where the small railroads connect with each other, through a greater "reach", or geographic coverage. These arrangements also may give the holding company or owner increased leverage in dealing with Class I railroads. On the other side, they could possibly negate the close customer service relationships for which small railroads are famous. The Commonwealth of Pennsylvania should remain active, engaged and interested in these small railroad groupings. Perhaps one of the most important reasons for this is to foster competitiveness in rail transport which goes beyond the ambit of the small railroad operation, that is, which depends upon transport by a Class I railroad. Here the same logic applies as covered in the discussion above under "2. Class I Railroads" and its subsection, "Potential Rationalization (Abandonments and Sales) and Competition", which concludes that Pennsylvania should look for opportunities to promote railroad competitiveness.

Paper Barriers

In a recent review of the issue of paper barriers—"contractual obligations incurred when short lines acquired lines from the larger, connecting carriers", as addressed in a Surface Transportation Board proceeding, Ex Parte 575, decided April 16, 1998—and the ensuing Railway Industry Agreement (RIA), a consultant suggests that the overall situation which existed four years ago has meliorated to the point where paper barriers are "less important today than was originally believed."[43] The situation addressed by Ex Parte 575 saw Class I's substantially reducing plant size, and branch lines being sold to short lines with so-called paper barriers. For example, a Class I seller would limit or preclude, as a condition of sale, a short line's ability to route cars to another Class I, thus attempting to retain all revenue associated with the property the seller divested. The RIA gives the short line the ability to route new business to another Class I in some cases. The same consultant says that today's Class I-short line relationships have improved to the

[42] "U.S. Steel to sell railroads", *Progressive Railroading*, November 2002, page 8.
[43] Roy Blanchard, "Are paper barriers still an issue?" *Railway Age*, April 2002, page 10.

degree that (rate and route) requests are being considered and approved without having to resort to RIA waivers.[44]

As is often the case, there are two sides. From the owning railroad's point of view, the acquiring (or leasing) railroad is entering into an mostly unregulated, arms-length, willing seller and willing buyer, free marketplace sale (or lease) agreement. Why should the seller not be able to negotiate an agreement with whatever conditions are deemed part of the overall transaction? If the buyer (or lessor) chooses to agree to the condition that all interchanges will be with the selling (or leasing) railroad, fine. If the buyer (or lessor) insists upon competitive interchange, OK; the price goes up. On the other side, from the buying (or leasing) small railroad's point of view—and from the Commonwealth of Pennsylvania's point of view, and that of freight railroad customers on the line—it would be better to have competitive interchange. There is yet another factor. A small railroad may be more or less dependent on a Class I railroad, and may not enjoy a great deal of "leverage".

Some Success Stories

It is important to recognize that Pennsylvania's commercial environment, which fosters preservation of short line railroads, has enjoyed success. Both branches of the Delaware-Lackawanna Railroad Company, Inc., including the segment which traverses the famous Tobyhanna Viaduct, were in deplorable condition when the local rail authority purchased them. With $20 million of state and local funding for improved track, traffic increased from 500 carloads per year in the mid-1980's to over 6,000 annual carloads in 2001, of which 4000 originate at a new mill of Harvest States Coop.[45]

Pennsylvania's Reading Blue Mountain & Northern (RBMN) has been recognized as Railway Age's Regional Railroad of the Year, in recognition of its participation in a marketing strategy success which results in a two-way move of construction aggregates between southeastern Pennsylvania and southern New Jersey. The RBMN originates limestone at Leesport, Pennsylvania, while the returning railcars carry construction sand from Newport, New Jersey.[46] Rail transportation cost is much reduced when revenue movements occur in both directions, in the same cars. This business was formerly moved by truck, in a short haul of about 100 miles each way. Another notable aspect of this commercial arrangement is that it involves a Class I railroad, and small railroads at each end. Incidentally, SEDA-COG Joint Rail Authority reports (in response to the survey part of this study) that its rail

[44] *Ibid*.
[45] "Old Rail Line: (Re)build It And They Will Come", *Rail Business*, May 28, 2001, page 1.
[46] "Backhaul Bonanza", *Railway Age*, September 2002, pages 77-78.

lines support an increasing demand for service, including movement of anthracite coal--another conversion from truck to railcar.

The Future

Service provided to small railroads by Class I railroads "is now as good as it's ever been" according to Frank Turner, who recently retired as President of the American Short Line and Regional Railroad Association (ASLRRA).[47] A similar sentiment has also been expressed by the Association of American Railroads, which noted an increase in Class I-short line carload interchange despite an overall softening volume.[48] The new President of ASLRRA, Richard Timmons, sees a window of opportunity this year, with debate of the transportation reauthorization on Capitol Hill, in pleading the case for money needed to rehabilitate the regional and short line railroad industry.[49]

4. Mitigation of Truck Traffic Growth

Discussion of the Issue

This issue is seen by railroads as a business growth opportunity, which, together with passenger rail, is perhaps the only one remaining. It is seen by some long-range thinkers as a necessary option, or relief valve, considering the forecast expansion of surface transportation demand and the constraints on new infrastructure construction.

A number of short line railroads, including several small Pennsylvania roads, list competition with trucks as a major issue, and relate this issue to the importance of state aid in upgrading infrastructure so as to attain higher track speeds. Two examples are mentioned under "3. Small Railroads".

Context is important here. The issue is not that railroads are expected to reverse a trend which in the past half century has favored trucks. Truckers do not see railroads as a threat, because railroads will seldom be able to provide the service (on-time delivery, exactly when and where wanted) which truckers provide. The compelling issue relates to overall surface transportation capacity, in what is expected to be an increasingly congested environment. In this context, it is important that Pennsylvania, as well as other states, take actions which increase surface transportation capacity in both highway and rail, and improve intermodal transfer, so as to improve overall efficiency. This is the vital direction, and this is one of the key arguments favoring public assistance to private freight railroads.

[47] "Large/small-road traffic increases", *Railway Age*, April 2002, page 18.
[48] "Blurring class lines", *Progressive Railroading*, April 2002, page 14.
[49] John Gallagher, "Shoring Up Shortlines", *Traffic World*, December 23/30, 2002, page 29.

Study after study shows surface transportation capacity stretched in the future, so it is important to predict where capacity improvements should be made, where "choke points" should be eliminated, and where alternatives to highway transportation are possible. In this context, perhaps the title for this section should be, "The Relief Valve Opportunity Provided by Railroads".

A related issue is permitted truck weights. One Pennsylvania short line operator states that an upward relaxation of truck weight limits may eliminate 20 to 30 percent of its existing traffic.[50]

Class I railroads have leaned both ways with regard to their interest in carload business. Intermodal and unit trains are more efficient and less labor intensive than merchandise freight trains. So perhaps the "lean" is a little more in this direction. On the other hand, CSX is promoting a program, Redi-Rail, jointly sponsored with rail car equipment leasing company GATX, aimed at chemical shippers, in which improved supply of immediately available tank and hopper cars is combined with competitive transportation rate and service packages.[51] This program is stated as "the latest in a series of initiatives CSX and other railroads have been pushing to gain new revenue business, particularly on the carload side," and promoting truck conversion.[52]

Growth of Rail Intermodal

Many have remarked on the phenomenal growth of rail intermodal traffic over the past two decades.[53] Several years ago Pennsylvania and Conrail funded double-stack clearance on the principal east-west corridor serving the Port of Philadelphia. Other recent Pennsylvania intermodal projects include a Norfolk Southern facility at Rutherford, Dauphin County, and a facility in Bethlehem, Northhampton County, by the Philadelphia, Bethlehem & New England Railroad, with the state providing partial funding.[54]

The trend continues, a recent report stating that "railroads may soon receive more revenue from moving containers and trailers of consumer goods than from hauling coal."[55] PennPlan MOVES recognizes the importance of rail intermodal, in that one goal is to clear all strategic rail freight corridors for double stack capacity, and

[50] Statement of Western New York & Pennsylvania Railroad, LLC.
[51] John Gallagher, "Team Effort: Chemical shippers target of new CSX-GATX rail equipment initiative", *Traffic World*, August 5, 2002, page 24.
[52] *Ibid*.
[53] Numerous articles in the professional literature describe this phenomenon. See, for example, the statement of Charles Banks in "Infrastructure, Intermodal Key In '03", *Rail Business*, January 6, 2003, pages 1 and 6.
[54] Jeremy Plant, "Railroads in Pennsylvania", Penn State Harrisburg, June 2000, page 13.
[55] Daniel Machalaba, "Railroads May Get More Money From Shipping Consumer Goods", *The Wall Street Journal*, September 19, 2002, page B4.

another is to support the creation and expansion of intermodal rail freight facilities that connect to the National Highway System. New York State and the Port Authority of New York and New Jersey plan to spend about $40 million to upgrade Metro-North's Hudson Line to enable it to carry "high-riding truck trailers", "to increase freight train traffic", and to take "hundreds of trucks off roads in the New York metropolitan area", according a report on the Association of American Railroads website.[56] In view of the projected doubling of the nation's freight volumes over the next 20 years, it would seem prudent that the Commonwealth continue to enhance intermodal connections and infrastructure improvements, which will also enhance the state's competitive posture.

CSX attracted 350,000 truckloads from highway movement in 2001, and projected that 450,000 would be diverted in 2002.[57] Norfolk Southern plans to launch more truck-competitive intermodal services.[58]

Three Class I railroads—Norfolk Southern, BNSF and Canadian Pacific—made presentations at the January 2003 Transportation Research Board annual meeting as part of a session titled "Short-Haul Intermodal Rail: Options and Opportunities". All three large railroads professed strong interest in this market, saying that railroads need to grow and "this is where the traffic is." (All were also arguing for public funding to assist, in consideration of the public benefits.)

Public/Private Funding

Because the issue of public funding of private railroads is in some quarters misunderstood or contentious—some states have constitutional prohibitions against it—it is appropriate to emphasize the public benefits in its favor. The Commonwealth of Virginia is currently sponsoring a study to determine the truck to rail diversions which would be realized with rail infrastructure improvements in the I-81 corridor, funding for which has been proposed by Norfolk Southern, based upon the public benefits expected to be derived therefrom, in particular, reduced public expenditures for highway I-81 expansion and maintenance.

One of the conclusions of the I-95 Corridor Coalition "Mid-Atlantic Rail Operations Study" is that elimination of "choke points" would enable freight railroads to offer competitive service, and therefore "approximately 25 percent of long-haul traffic could divert to rail intermodal."[59] The report emphasizes that this is 25 percent of a mightily growing volume of surface traffic. Indeed, the

---

[56] "Hudson Line to Be Upgraded for Freight Service", report attributed to Journal-News, Westchester County, N.Y., October 28, 2002; http://www.aar.org/Index.asp?IACID=1067.
[57] Jeff Stagl, "Industry Outlook", *Progressive Railroading*, December 2002, page 24.
[58] *Ibid*.
[59] I-95 Corridor Coalition, "Mid-Atlantic Rail Operations Study", Summary Report, page 12.

study was brought about by the need to address approaching congestion challenges.

The I-81 and I-95 studies concern themselves with north-south traffic. In the Keystone State there are also large east-west volumes of surface traffic. PENNDOT may wish to take a cue from the I-81 and I-95 studies, and explore public-private opportunities to improve east-west traffic flows—perhaps a I-70/I-76/I-80 broad "corridor" study. A glance at CSX and Norfolk Southern traffic density maps shows that the predominant rail traffic flow in the northeastern United States is between North Atlantic ports and the Midwest.

Many industry observers have concluded that there is a pressing need for public funding of private railroads. The following arguments have been advanced:

- Railroads cannot compete fairly with public-funded systems, e.g., highways.
- The pressing need for future surface transportation capacity makes public assistance inevitable.
- Railroads provide numerous public benefits (mitigate highway congestion, improve air quality, reduce overall accident rates, and improve commodity flow efficiency).
- The need for additional passenger rail capacity on freight rail rights of way demands public funding.

5. Passenger Rail Shared Use

The Growing Need for More Passenger Rail

Pennsylvania is moving to increase and improve passenger rail service. There are plans to expand Southeastern Pennsylvania Transportation Authority (SEPTA) service. More light rail is to be added in Pittsburgh. Actions have been taken to improve Keystone Corridor passenger rail service. Pennsylvania is one of two national finalists competing for federal maglev funding support. Pocono corridor passenger rail service to/from New York City is slated to resume in 2006.[60] There is interest in implementing commuter rail service in the region surrounding Harrisburg. The Pennsylvania Statewide Intercity Passenger Rail Needs Assessment Final Report was published in January 2002. Highway use trends suggest pursuit of the passenger rail option. Although each case must be evaluated on its own merits, it is generally true that rail corridors have potential additional capacity (with track and signal improvements), whereas many highway corridors are near capacity and have limited prospects for expansion, especially those in and near urban areas, where the congestion problems requiring corridor

[60] www.railpace.com, August 25, 2002.

capacity expansion are most acute. Half the new start passenger rail projects authorized in TEA-21 use the existing freight railroad system.[61]

Issues to Be Addressed

There are some very important issues here:

- Corridor ownership
- Corridor capacity
- Corridor owner's requirements
- Federal requirements

Most of the railroad corridors eyed for new passenger rail service are privately owned. Class I railroads are not eager to add passenger rail service absent public sector investment to provide additional infrastructure so that passenger trains will not interfere with freight trains. On the other hand, small railroads usually have unused capacity and are delighted with the prospect of additional revenue (and track upgrade). Corridor capacity is of vital importance and depends upon a number of factors, including current and future traffic, existing tracks and signals, and corridor width. Capacity becomes a crucial consideration where width of corridor will not support additional tracks. Also, some Class I railroads (CSX and Norfolk Southern are included in this category) require (1) a 25-foot separation distance (25 feet between track centers) where addition of passenger tracks is required, and (2) in any event, dedicated passenger trackage where passenger trains speeds are to equal or exceed 90 miles per hour.

The Federal Railroad Administration requires some form of train control where train speeds are to exceed 79 miles per hour (mph), implying additional signal and communications requirements, and the U.S. Department of Transportation proposes prohibition of at-grade crossings where train speeds exceed 125 mph.

Another Issue

Amtrak pays only incremental cost for use of freight railroads, while freight railroads state that they pay considerably more to operate on Amtrak-owned right of way. This is an issue in Pennsylvania. How can this be "fixed"? The Rail Passenger Service Act of 1970, which established Amtrak, provides that Amtrak "may contract with railroads … for use of tracks and other facilities", and, if the parties cannot agree, the Interstate Commerce Commission, shall "order the provision of services or the use of tracks or facilities … on such terms and for such

[61] Kathi Kube, "Corridor Coordination", *Progressive Railroading*, June 2002, page 32.

compensation as the Commission may fix as just and reasonable". The Interstate Commerce Commission has established said compensation on the basis of "incremental costs". RLBA believes this federal policy issue would have to be settled on Capitol Hill. Thus to pursue it, Pennsylvania would have to work through its Congressional delegation.

Potential Action

Pennsylvania and its metropolitan planning organizations should consider taking the following actions with regard to passenger rail:

- Include passenger rail in all corridor planning.
- Investigate passenger rail potential in all rail line improvement programs.
- Support federal funding of intercity passenger rail in the 2003 transportation reauthorization, perhaps in context of "through the states" (as opposed to Amtrak).
- Evaluate benefits to Pennsylvania of public/private rail corridor improvements.
- Where a freight rail corridor has capacity for needed passenger rail service, determine with the corridor owner whether it can be utilized for that purpose.

6. The Expected Growth in Freight and Passenger Traffic

North American Free Trade Agreement (NAFTA) and Latin America Trade Study (LATS)

The bottom line with regard to this subject is that international trade has been a growth area, and this trend is expected to continue. The growth of container intermodal traffic, associated in particular with ports, has been phenomenal. The 12-year-old Canada/U.S. Free Trade Agreement and the 7-year old North American Free Trade Agreement (NAFTA) have broken new ground for trade liberalization. Cross-border trade movement is expected to increase as truck safety standard issues are resolved. The President continues to attempt to obtain new authority from Congress to negotiate new trade agreements more readily. Implications of the reductions of trade barriers, the increasing globalization of trade, and growing population, vis-à-vis existing transportation infrastructure, are clear: more goods require more transportation capacity. Pennsylvania is crossed by major highway and railroad trade transportation corridors, which are undoubtedly going to be impacted by the described dynamics. The key issue is not whether these corridors will continue to be highly significant in the 21st Century. They will. It is not how they will adapt to change. Ways will be found. In RLBA's judgment the key issue

is to identify the proper investment allocation between private profit-making firms and agencies responsible for maximizing public benefits.

Doubling of surface transportation volumes in 20 years, I-81 NS initiative, Mid-Atlantic Rail Operations Study, SCORT Bottom Line Report.

Predicted increases in surface transportation and the Norfolk Southern I-81 initiative already have been described. The Mid-Atlantic Rail Operations Study and the SCORT Bottom-Line Report are reviewed in the "Review Rail Freight Studies" portion of this project. There is a common thread passing through these efforts: more transportation capacity will be required in the future, and solutions are on the table. No one is predicting that rail can "solve" the problem, there is, however, no other ready-made, in-existence answer which can offer an equivalent contribution to its ultimate resolution.

PENNDOT Responses

Presumably PENNDOT is considering U.S. DOT and other predictions regarding future traffic flows, and is determining appropriate actions. A great increase in traffic is expected; no one expects an appreciable increase in interstate highway lanes. For one thing, interstate expansion in many urbanized areas would be very expensive, if practical at all. The impact of "do-nothing"—given the dire predictions—is great, with costs to Pennsylvania's citizens in terms of traffic congestion and economic inefficiency. No doubt there are highway improvements and efficiencies which would assist. The purpose here is to determine where rail also might assist.

Utilization of existing railroad corridors, many of which are capable of carrying additional traffic, is not a "final answer" or "silver bullet" but is at least a relief valve. This was the thought by those who prepared the Mid-Atlantic Rail Operations Study, and by those pursuing the I-81 corridor study. Also, as one transportation professional recently observed, "projected traffic congestion could bring the intermodal market down to 300 miles."[62] Pennsylvania is crossed, east-west and north-south, by rail corridors which can be studied as potential highway traffic mitigators. Following overall identification of the expected heaviest future flows by PENNDOT, joint public/private studies (perhaps also involving states adjacent to Pennsylvania) can determine whether there is an opportunity in public/private rail traffic efficiency improvements, similar to what has been done in the Mid-Atlantic Rail Operations and I-81 studies. There may be roles for short line and regional railroads as well as Class I railroads in such an effort. The above-

[62] Statement made at session on "Current Issues in Intermodal Freight Transportation Planning and Modeling", Transportation Research Board annual meeting, January 13, 2003. The lower geographical range of practical rail intermodal has often been stated as 500 to 700 miles.

mentioned Transportation Research Board session, "Short-Haul Intermodal Rail: Options and Opportunities", shows strong Class I interest.

A conclusion of the survey of Pennsylvania's planning organizations and public rail authorities is that freight and railroad-related planning to a greater scale and scope is possible.

Conclusions

Pennsylvania's Freight Rail Program and the Importance of State Funding

The overall conclusion with regard to Pennsylvania's successful freight rail program is that this is a most valuable resource, which few other states emulate, and it should be maintained and developed. The program's strengths should be reinforced with improvements, in particular, additional rail infrastructure funding.

In consideration of the predicted increase in surface transportation demand, and the role of rail in reducing the problem; the importance of upgrading small railroads to handle 286,000-pound railcars; the on-going capital upgrade and maintenance requirements of Pennsylvania's small railroads aside from the foregoing issues; and the virtually universal response from planning organizations and public rail authorities that more funding is needed, not to mention annual inflation; Pennsylvania should consider raising its rail freight assistance funding levels.

Mergers, Surface Transportation Board (STB) Actions

PENNDOT currently reviews STB actions regularly. This practice should continue. Pennsylvania should develop its strategy now and be ready to act with alacrity when there is any indication of an impending merger application before the STB, or indeed, when any issue is considered by the Board which affects the Commonwealth, now or in the future. *A principal Pennsylvania objective in any of these actions is to preserve and enhance competitive rail service*.

2003 Reauthorization and Federal Support of Railroads

In addition to funding by the state and its railroads, federal funding is vitally important. Reauthorization of TEA-21 is scheduled for 2003. Pennsylvania must determine its interests and act accordingly. The American Association of State Highway and Transportation Officials Standing Committee on Rail Transportation (AASHTO SCORT) Freight Rail Bottom-Line Report (October 2002) calls for a new federal policy of public funding for private railroads to relieve pressure on highways.

Reauthorization considerations involving rail include:

- Federal grants for short line railroad infrastructure improvement (including 286,000-pound upgrades)
- Assisting rail to play a role in carrying the predicted doubling of surface transportation over the next 20 years
- Intermodal assistance (clearance projects, construction or improvement of truck-rail transfer facilities): to make it easier to switch traffic from truck to rail
- Intercity passenger rail assistance, perhaps provided through the states
- Support of Pennsylvania's numerous passenger rail projects, in various stages of planning
- Public/private partnerships to inject new capital into the rail system

Pennsylvania should support federal rail assistance on both the freight and passenger sides. Growth on both sides must be dealt with.

Pennsylvania's Congressional Delegation should carry the Commonwealth's requirements to Capitol Hill and engage in the Reauthorization debate.

Future Transportation Congestion: The Predicted 2020 Transportation Gridlock and the Role of Rail in Mitigating the Problem

Credible sources indicate the future holds awesome increases in traffic, and preparations must be undertaken. The U.S. Department of Transportation predicts an approximate doubling of surface transportation over the coming two decades. Extrapolation of trends which characterize highway traffic over the past 25 years indicates an alarming increase in vehicle-miles-travelled, at a rate four times population growth. The I-95 Corridor Coalition Report and Latin America Trade Study both urge the preparation of our surface transportation systems for much greater use.

Responding to the survey of planning organizations and public rail authorities conducted as a component of this study, the Northeastern Pennsylvania Alliance (Carbon, Monroe, Pike, Schuylkill and Wayne Counties) mentioned growing truck traffic on I-81 and I-80, and the search for "alternatives to growth in truck traffic on interstate highways."

The conclusion is unavoidable: Pennsylvania must prepare for surface transportation growth.

PENNDOT should explore the rail option as a relief valve. PENNDOT should continue efforts already initiated (the I-95 corridor study, PENNDOT's passenger

rail study), and perhaps coordinate with other states, to attack the looming issue of increased surface freight and passenger transportation. One approach would be to examine the currently most congested interstate corridors and other principal arterials, make projections into the future, and determine whether parallel rail corridors may be upgraded to increase their capacity, and to provide some relief from the expected problem of future highway congestion.

Rail is part of the solution, and Pennsylvania should act now to improve the efficiency of its rail system, considering:

- Additional state rail funding, above current levels
- Upgrade of small railroads to 286,000-pound railcar capability
- Double-stack intermodal clearance projects
- Other projects facilitating intermodal growth, including transfer facilities
- Elimination of choke points
- Public-private agreements with railroads

Because of the importance of this issue, it may be appropriate that PENNDOT recommend formation of a special task force under the aegis of the Governor's RFAC specifically to address rail's contribution in mitigating the anticipated 20-year congestion issue. The agenda of this task force, which should include representatives of the railroads, planning organizations and appropriate PENNDOT agencies, could include identification of the most cost-effective projects to enhance rail flows and stimulate more use of rail, including rail intermodal; determination of public-private cost sharing responsibilities; and recommendations for rail solutions in a report to the next session of the Legislature.

Funding Options

Federal

The Local Rail Freight Assistance (LRFA) program, a grant and loan program designed to assist low traffic density freight rail lines and administered by the Federal Railroad Administration (FRA), was last funded by Congress in 1995. There are yet some old LRFA funds still in use, for example, as a result of re-cycled loan money; however, Pennsylvania has no remaining LRFA funds. The LRFA program was important to preservation of small railroads such as the many in Pennsylvania, and some similar federal program would benefit the Keystone State.

The Transportation Equity Act for the 21st Century (TEA-21) became federal law in 1998, continuing many of the policies and programs which originated in the

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), and brought with it a number of new federal funding programs. TEA-21's Light Density Line Pilot Program, considered to be the successor to the LRFA program, has never been funded.

TEA-21 has flexibility which allows states and metropolitan planning organizations to employ federal funding from various sources in rail projects. Thus federal funding for rail projects has come from the Surface Transportation Program (STP), National Highway System, Congestion Mitigation and Air Quality Improvement (CMAQ), Transportation Enhancements, Rail-Highway Crossing Program (the so-called Section 130 program), High Speed Rail Development, and others.

The Congestion Mitigation and Air Quality Improvement (CMAQ) program funds projects which reduce traffic congestion and help meet Clean Air Act requirements. CMAQ funding may be used for freight and passenger rail projects which accomplish CMAQ goals. Funding is available for areas that do not meet the National Ambient Air Quality Standards (nonattainment areas) as well as former nonattainment areas now in compliance (maintenance areas). For example, Maine is using CMAQ funds for infrastructure investments to restore passenger rail service between Portland and Boston, and these investments will benefit both passenger and freight rail service in the state.[63] Cincinnati's third main track in the heavily-used Mill Creek Valley freight rail corridor was the first freight rail project funded partly by CMAQ.[64] Southern Railroad Company of New Jersey built a transload facility and rehabilitated a section of its track with CMAQ funds.[65] There are numerous other examples.

Ten percent of a state's STP funding is set aside for Transportation Enhancements, which encompass a broad range of environmentally-related activities including rehabilitation and operation of historic transportation buildings, structures or facilities and preservation of abandoned railway corridors.

The Highway Safety Act of 1973 established the Rail-Highway Crossing Program, which became known as the Section 130 program (from its designation in Title 23 of the United States Code). The goal of this program is to provide federal support to efforts to reduce the incidence of accidents, injuries and fatalities at public railroad crossings. States may utilize the Section 130 program, administered by the Federal Highway Administration (FHWA), to improve railroad crossings using a variety of methods, including installation of warning devices, elimination of at grade crossings by grade separation, or by consolidation and closing of crossings. A limitation of this program has been in the funding, which has averaged only

[63] "Maine Supports 'Flexibility'", *National Association of Railroad Passengers News*, October-November 2002, page 3.
[64] "NS taps ISTEA to relieve Cincinnati congestion", *Progressive Railroading*, March 1995, page 55.
[65] William C. Vantuono, "Short lines dig for dollars", *Railway Age*, June 1995, page 63.

$3 million per year per state, barely enough to improve warning at a handful of crossings. (Through TEA-21 flexibility, it is possible to improve rail-highway crossing funding, as explained below.)

FRA administers High Speed Ground Transportation/Next Generation High Speed Rail grants to stimulate implementation of high speed passenger rail systems. Although this program is oriented toward passengers, it is conceivable that freight rail improvement may result if, as one example, the same tracks are used for both. Approximately $20 million a year is obligated, covering projects with federal assistance ranging from $100,000 to $7,000,000. For this purpose, "high speed" is at least 90 mph.

In addition, TEA-21 authorizes two credit assistance (direct loans, loan guarantee) programs. The Rail Rehabilitation and Improvement Financing (RRIF) program provides direct loans and loan guarantees to state and local governments, government-sponsored authorities and corporations, railroads, and joint ventures that include at least one railroad. Eligible projects include (1) acquisition, improvements or rehabilitation of intermodal or rail equipment or facilities (including tracks, components of tracks, bridges, yards, buildings, and shops), (2) refinancing outstanding debt incurred for these purposes, or (3) development or establishment of new intermodal or railroad facilities. This program has been plagued by a very long start-up time and onerous administrative requirements; the now five-year-old program has not been “user friendly”, and only four loans have been granted by the Federal Railroad Administration.

The Transportation Infrastructure Finance and Innovation Act (TIFIA) provides credit assistance on flexible terms directly to public-private sponsors of major surface transportation projects to assist them in gaining access to capital markets. TIFIA authorizes the Secretary of Transportation to collect fees from borrowers and fund up to $10.6 billion of direct loans, loan guarantees, and lines of credit to support up to 33 percent of project costs. Eligible projects include highway and capital transit projects, intercity bus and rail projects (including Amtrak and maglev systems), and publicly-owned intermodal freight transfer facilities on or adjacent to the National Highway System. Projects must cost at least $100 million or 50 percent of a state’s annual apportionments and be supported by user charges or other dedicated revenue streams. The Secretary of Transportation selects projects based upon factors including national significance, credit-worthiness and private participation.

Intermodal connectors—highways providing access to rail intermodal facilities—are eligible for $3.6 billion improvement funding under the National Highway System

(NHS) Designation Act of 1995.[66] The Federal Highway Administration can authorize states to spend NHS money on intermodal connections.[67]

Creative Use of Flexible Funding. The flexibility provided by TEA-21 may be illustrated in the area of rail-highway crossings by the following example. TEA-21 directs that states set aside ten percent of their STP funding for safety improvements, a portion of which must be reserved for carrying out the Section 130 Rail-Highway Crossing Program. An additional portion of the safety set-aside is also eligible for elimination of crossing hazards, should a state choose to use the funds for this purpose. Funds from other apportionment categories may also be used to improve crossing safety. For example, any repair, construction or reconstruction of roads and bridges affected by a project would be eligible under normal funding categories. (The corridor approach to improving railroad crossing safety promotes greater efficiency in solving the problem and has been encouraged by FHWA.) Other projects eligible for STP funding include railroad relocations and consolidations, intermodal terminals and the acquisition of abandoned railroad rights of way.[68]

Federal Transit Administration (FTA) funding, although intended primarily for passenger service, can have an enormous effect on freight movements as well. Freight capacity improvements are often the result of negotiations to implement passenger service on railroads that presently are freight-only.

It has often been said that "the best opportunity for railroads to get federal funding will lie in including themselves in broader transportation projects."[69] The railroad contribution to "high-speed passenger rail initiatives, pollution-reduction plans and congestion-mitigation projects" can result in federal money to upgrade railroad infrastructure.[70] Rail rehabilitation can be assisted by highway relocation or grade crossing removal projects

Another federal funding possibility, the Economic Development Administration (EDA) of the Department of Commerce, administers two project grants programs, Grants to Public Works and Economic Development Facilities and Economic Adjustment Assistance, intended, respectively, to promote long-term economic development in areas experiencing substantial economic distress, and to assist states and local interests with strategies to bring about a change in the economy,

---

[66] "National Highway System Designation Legislation", *Views & News*, American Short Line Railroad Association, November 27, 1995, page 186.
[67] "FHWA sends intermodal connectors to Congress for inclusion in NHS", *Traffic World*, May 27, 1996, page 13.
[68] From list of rail projects which qualify for flexible funding, received by RLBA from U.S. Department of Transportation, September 1993.
[69] "Railroads Eye TEA-21 Infrastructure Funding", *Rail Business*, April 15, 2002, page 1.
[70] *Ibid*.

focusing on areas under serious economic damage. For example, the City of Ely, Nevada, is seeking an EDA grant to restore a 110-mile railroad in order to attract industry to the area.[71]

State Infrastructure Banks were created by Section 350 of the National Highway System Designation Act of 1995, allowing states to set aside up to 10 percent of their federal transportation funding for public-private investments. State Infrastructure Banks may offer loan and credit options to help finance infrastructure projects. Money for projects may be loaned at low rates to private investors, or may serve as capital reserve for bond and debt financing. The loan may be repaid with revenues generated by the project.

State

Pennsylvania has funded rail freight infrastructure by means of the Rail Freight Assistance Program (RFAP), Capital Budget Grants and doublestack clearance projects. RFAP was created by the Commonwealth's Rail Freight Preservation and Improvement Act of 1984, No. 119, which provides funds to preserve essential rail freight service and stimulate employment through generation of new or expanded rail freight service. Since 1997, RFAP projects have helped create 9,368 jobs and helped reduce highway congestion by keeping approximately 2.1 million trucks off the highway.[72] The funding appropriation for RFAP was increased from $3.5 million in 1995 to $8.5 million through the fall of 2001. Capital Budget Grants have typically been funded at $10 million annually.

A widely-held and strongly-felt opinion, recorded in the survey of Pennsylvania's planning organizations and public rail authorities, is that more RFAP funding is required.

Pennsylvania's Department of Community and Economic Development administers a Business Infrastructure Development Program, the objective of which is stated in its name, and rail development can be a portion of the projects funded thereby, which have a $1.5 million limit.

There may be other opportunities for state funding of freight rail projects, for example in at-grade crossings. Former ASLRRA president Frank Turner advised railroads to go to their state economic development commissions for funds to upgrade infrastructure to meet 286,000-pound railcar requirements.[73]

---

[71] "Nevada Northern Railroad Project Engineering Study and Cost Estimate", a report by R.L. Banks & Associates, Inc., to the City of Ely, Nevada, July 15, 2002.
[72] Data provided by PENNDOT, December 10, 2002.
[73] Jeff Stagl, "Weighing options", *Progressive Railroading*, June 2002, page 27.

Local Public Funding, Private and Innovative Funding Programs

Numerous public-private and/or innovative funding plans have assisted the maintenance and improvement of rail infrastructure. Following are some examples.

Use of public funds to leverage private funding (a public-private participation project) is one method of funding where there are both public and private benefits. Pennsylvania's Conrail double stack project of the 1990's is a prime example, wherein the state participated in the $100 million project to the extent of $35.8 million. Other Pennsylvania projects, now under consideration[74]:

1. West Trenton Line, double stack clearance in Philadelphia with CSX. Funding includes a TEA-21 earmark ($10 million), State Capital Budget item for $10 million and the rest to be CSX funding. Initial cost estimate for the project is $27 million.
2. Advanced Warning Timing Devices with Norfolk Southern, Bessemer & Lake Erie and Union railroads. State Capital Budget item for $10 million for safety improvements at 97 crossings during FFY2003-2006. Total project costs $8.67 million to be shared 80 percent state funds and 20 percent railroad funds.
3. South Broad Street project with CSX to improve clearance and capacity into the Philadelphia port area. $1.1 million dollar project with a $600,000 state share.
4. NS new construction to Keystone Power Plant, Shelocta line in Indiana County. The project was a TEA-21 earmark ($10 million). Currently there are no state funds committed.

Similar leveraging with public funds may be performed at the local or community level, and in addition rail customers which benefit may be asked to join in funding the project.

The Kansas legislature approved a bill which provides an income tax credit of $500,000 a year for 20 years to a group of short line railroads in return for an agreement by the railroads to provide service over that period, and not abandon the lines.[75]

Other reasonable and practical private and innovative funding sources and options include cost sharing from freight railroads, local/community funding, etc.

One funding method which could be classed as "innovative" is the use of government-guaranteed bonds, repaid over time by the railroad which benefits from

[74] Data provided by PENNDOT, December 10, 2002.
[75] "Shortline Shakeup In Kansas", *Rail Business*, April 23, 2001, page 4.

the improvement. The Missouri Department of Transportation approved a plan allowing KC Terminal Railway to issue $61 million in bonds, the sale proceeds to go to a project to improve the speed of rail traffic through Kansas City by widening a Kansas River railroad bridge and constructing a railroad flyover (the Argentine Connection) enabling trains to pass over, rather than cross, other busy rail lines. The bonds will be repaid through user fees from the railroads. An authority in Kansas has authorized use of industrial revenue bonds to finance that state's share of total public costs.[76] The now-completed Sheffield Flyover in Kansas City, owned by the KC Terminal Railway, was financed with Missouri industrial development bonds. A per-railcar charge will repay the bonds.[77]

The pay-back feature by the railroads is also a component of the Alameda Corridor project in Los Angeles, California, which was funded by a number of public sources which will be repaid by the using freight railroads based upon their use of the corridor. The planned Shellpot Bridge project, resulting from the Mid-Atlantic Rail Operations Study, will be funded by Delaware; the state will then be paid back over time by the railroad.

Potential Funding Program Options

What are the potential options for new and improved funding programs for preserving and developing rail freight infrastructure? The most prominent are those discussed above. To recapitulate:

(1) Federal funding. Various programs are available. It is vitally important that Pennsylvania insert its arguments in the upcoming debate on the new surface transportation authorization.
(2) State funding. Two options are most prominent, and direct, for the railroads: the Rail Freight Assistance Program and Capital Budget Grants. There are many voices calling for an increase in the level of state funding, which would help the Commonwealth's economic development and provide relief from the expected great increase in surface transportation demand.
(3) Local Public Funding, Private and Innovative Funding Mechanisms. These are limited only by the imagination. It is helpful to consider all project beneficiaries, and this consideration may bring in local business interests including railroad customers. Public-private ventures are more and more used. Government funding, or government-supported bonds, repaid in time by the railroads, is an option which has several recent examples. Tax incentives are another option.

[76] Brian Cookson, "Missouri approval keeps rail improvement plan on track", *The Business Journal: Serving Metropolitan Kansas City*, December 14, 2001.
[77] Randolph R. Resor and James R. Blaze, "Devising an effective PPP strategy", *Railway Age*, December 2002, page 48.

Anticipated Future Annual Infrastructure Costs

In any discussion of annual rail infrastructure maintenance funding needs, the point must be made that estimation of infrastructure maintenance needs can be highly variable, and contingent upon a number of factors, including:

- Traffic density
- Track speed
- Axle loads
- Safety of operations
- Natural calamity repairs
- Execution of the railroad company's business plan
- Availability of funds
- Size of railroad (Class I, regional and short line)

These factors may vary widely from railroad to railroad and indeed from year to year. Another important point is that there may be a gap between the "need" to maintain infrastructure in a state of good repair and "ability" to upgrade existing track structure with funding available. A third point is that the approach to and year-to-year execution of infrastructure needs and funding will be different when one compares a 60-mile-per-hour trunk line carrying an annual 120 million gross tons with 10-mile-per-hour track carrying a few carloads a year. The former will receive a relatively high level of regular and dedicated maintenance, while the latter may receive minimum maintenance over a period of years. Maintenance of the latter track may be dependent upon absolute necessity (to repair a weak section of track following a derailment or natural disaster), "up" business cycles and public funding.

The Level of Maintenance and Capital Expenditures portion of this study (see page one of this volume) determined estimates, with regard to infrastructure requirements (track and bridges) over the coming five years. In Table 4, this data is combined with aggregate miles of various FRA track class in Pennsylvania to provide gross order-of-magnitude estimates of annual maintenance and capital expenditures expected with regard to railroad track and bridges in Pennsylvania.

Table 4
Approximate Future Annual Infrastructure Costs

FRA Track Class	Annual Per Mile Track Expenditure (Planning Figure) ($000)	Track Miles in Pennsylvania	Annual Track Expenditures: (Planning Figure) ($000)
Excepted	$ 6	200	$ 1,200
1	12	770	9,237
2	18	1,308	23,547
3	27	1,558	42,069
4	45	1,331	59,904
Total		5,167	$135,957

Source: RLBA

These gross order-of-magnitude figures are based upon data provided by most (but not all) of Pennsylvania's railroads, with varying degrees of precision, extrapolated to the total of Pennsylvania's track-miles. The figures represent amounts which, depending on the economy and business trends, the Commonwealth can expect the railroads to spend (capital and maintenance expenditures) to maintain their infrastructure in a state of good repair and to make necessary improvements. Not all Pennsylvania's railroads are expected to match these figures, for various reasons. For example, the closing of a coal mine or change in shipping pattern by a major or sole customer on a branch line likely would change that railroad's right of way expenditures. Likewise state or federal funding assistance to a railroad may result in increased demand for use of the rail mode, resulting in a corresponding increase in track maintenance expenditure.

Notice that Table 4 does not distinguish between Class I, regional and short line railroads. The lower part of the table, that which pertains to FRA Track Classes 3 and 4, is by and large the domain of Class I railroads. The upper part of the table, pertaining to Excepted and Class 1 track, generally characterizes short line railroads and switching and terminal operations.

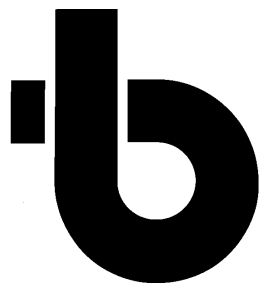
It should also be emphasized that the approximate costs in Table 4 are both capital and maintenance expenditures, and are the expenditures related to keeping track, bridges and other right of way structures in a state of good repair.

Also, it is important to recognize that Table 4 estimates the overall future annual infrastructure funding needs, including all funding sources: federal, state, local, and private ("private" from the railroads themselves, and "private" from non-railroad sources, mostly shipper investment in turnouts, spurs and sidings).

Many issues may affect future funding needs:

- Yet heavier railcars (e.g., 315,000-pound)
- Increase in traffic
- Rail bridge replacement requirements
- Railroads' pursuit of public financial assistance
- Re-authorization of federal transportation funding (TEA-21's successor)
- Potential rail mergers and other restructuring of Class I's and regional railroads
- Increasing burden on highways and their limited expansion potential
- Unforeseen developments

The point is that changes which may affect future funding requirements cannot be predicted with certainty.



WASHINGTON, DC

1717 K Street, N.W.
Washington, DC 20036-5331
T 202.296.6700
F 202.296.3700
transport@rlbadc.com

CALIFORNIA

6 Beach Road, #250
Tiburon, CA 94920-0250
T 415.789.5061
F 415.789.5019
transport@rlbadc.com

ONTARIO

256 Crocus Avenue
Ottawa, ON K1H 6E9
T 613.737.6045
F 613.737.7895
tburges@igs