



# Review Of The Kansas Short Line Railroad Rehabilitation Program



## Final Report – November 2005

Study Completed By Parsons Brinckerhoff  
for The Kansas Department of Transportation

REVIEW  
OF THE  
KANSAS SHORT LINE  
RAILROAD REHABILITATION  
PROGRAM

For

Kansas Department of Transportation

Submitted by

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## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>ES-1</b>
Study Purpose .....	ES-1
Kansas Railroad Infrastructure .....	ES-1
Background .....	ES-1
State Rail Service Improvement Fund .....	ES-2
Study Process .....	ES-2
Areas of Focus for the Study .....	ES-3
Interview Highlights .....	ES-5
Economic Analysis .....	ES-7
Conclusions.....	ES-9
Recommendations.....	ES-10
<b>1.0 INTRODUCTION.....</b>	<b>1-1</b>
1.1 BACKGROUND .....	1-1
1.1.1 State Rail Service Improvement Fund Program History .....	1-2
<b>2.0 OVERVIEW OF ECONOMIC TRENDS AND FREIGHT FLOWS.....</b>	<b>2-1</b>
2.1 The Short Line Rail System.....	2-1
2.1.1 Communities Served by SRSIF Projects .....	2-3
2.2 Economic Overview of Kansas.....	2-3
2.2.1 Agricultural Sector.....	2-5
2.2.2 Manufacturing Sector .....	2-5
2.2.3 International Exports.....	2-6
2.3 Kansas Freight Flows and Trends.....	2-6
2.3.1 Freight Modal Characteristics.....	2-6
2.3.2 Freight by Commodity.....	2-8
2.3.3 Businesses Served by SRSIF Projects .....	2-12
2.3.4 Factors Affecting Short Line Freight Flow.....	2-14
<b>3.0 INTERVIEWS .....</b>	<b>3-1</b>
3.1 Short Line Railroad Interviews.....	3-3
3.2 Short Line Shipper Interviews .....	3-14
3.2.1 Grain Shippers (14).....	3-15
3.2.2 Non-Grain Shippers (13) .....	3-22
3.3 Class I Railroad Interviews.....	3-30
3.4 Other Interviews .....	3-35
3.5 Other States Short Line Railroad Assistance Programs.....	3-40

<b>4.0</b>	<b>DETAILED BREAKDOWN OF PROGRAM EXPENDITURES AND USES .....</b>	<b>4-1</b>
4.1	Program Expenditure Summary .....	4-1
4.2	Program Expenditures, by Railroad Line, and Type of Investment.....	4-2
4.3	Program Expenditures Relative to Capital Needs .....	4-5
<b>5.0</b>	<b>IMPACTS ON RAILROAD OPERATIONS .....</b>	<b>5-1</b>
5.1	Operational/Service Improvements .....	5-1
5.2	Short Line Railroad Abandonments Avoided.....	5-2
5.2.1	Underlying Causes of Short Line Railroad Abandonments.....	5-3
5.2.2	Short Line Railroad Abandonment Trends and Currently Planned Abandonments .....	5-3
5.2.3	Impact of Program on Avoidance or Delay of Short Line Railroad Abandonments .....	5-4
5.3	Neighboring States Rail Issues Affecting Kansas Short Line Rail Operations.....	5-4
5.4	Possible Future Short Line Rationalization/ Consolidation.....	5-5
5.5	Possible Future Class I Rationalization .....	5-6
<b>6.0</b>	<b>ECONOMIC ANALYSIS .....</b>	<b>6-1</b>
6.1	Earlier Economic Studies of Short Line Rail Program Benefits.....	6-1
6.2	Economic Analysis Methodology .....	6-1
6.2.1	Overall Approach and Basic Assumptions .....	6-1
6.2.2	Economic Model – Modeling Procedures.....	6-3
6.3	Economic Benefits of Improved Short Line Service for Existing Customers – Rehabilitation Projects .....	6-4
6.3.1	Shipper Cost Savings for Existing Customers .....	6-4
6.4	Economic Benefits Resulting from Avoidance of Short Line and Branch Line Abandonment - Acquisition of the Central Kansas Railroad.....	6-7
6.4.1	Shipper Cost Savings for Existing Customers – Acquisition of the CKR.....	6-7
6.4.2	Avoided Business Closures from Acquisition of the CKR.....	6-9
6.5	Total Economic Benefits – Rehabilitation Projects and CKR Acquisition.....	6-11
6.5.1	Shipper Cost Savings for Existing Customers .....	6-11
6.5.2	Local and State Income and Employment Impacts.....	6-11
6.6	Impacts by Industry Sector .....	6-13
6.7	Public Sector Benefits.....	6-13
6.7.1	Highway Rehab/Maintenance Cost Savings.....	6-14
6.7.2	State and Local Tax Revenues.....	6-15
6.8	Economic Impacts of Future Rail Program Business Model Options .....	6-16
<b>7.0</b>	<b>PUBLIC INVOLVEMENT .....</b>	<b>7-1</b>

**8.0 CONCLUSIONS AND RECOMMENDATIONS ..... 8-1**

8.1 Conclusions..... 8-1

8.1.1 Economic Analysis ..... 8-1

8.1.2 Other Findings ..... 8-2

8.2 Recommendations..... 8-3

8.2.1 Program Continuation..... 8-3

8.2.2 Project Eligibility and Criteria ..... 8-3

8.2.3 Program Funding ..... 8-5

8.2.4 Program Administration by KDOT ..... 8-6

LIST OF TABLES

Table 2-1 Class III Freight and Switching/Terminal Lines ..... 2-1

Table 2-2 Communities Served by Short Line Loan/Grant Program Projects ..... 2-4

Table 2-3 Kansas Grain Production during Initial Years of Short Line Loan/Grant Program (Bushels) ..... 2-5

Table 2-4 Freight Industry Modal Characteristics ..... 2-6

Table 2-5 Freight Flows – Value and Tonnage (Kansas)..... 2-8

Table 2-6 Top Rail Shipments Originating in Kansas – 1999 and 2003..... 2-9

Table 2-7 Top Rail Shipments Terminating in Kansas – 1999 and 2003 ..... 2-9

Table 2-8 Annual Percentage of Crop Deliveries To Elevators by Rail ..... 2-10

Table 2-9 Annual Percentage of Grain Crops Shipped From Elevators by Rail..... 2-10

Table 2-10 Kansas Agriculture and Agriculture-Related Concerns Served by Projects Funded through the Short Line Loan/Grant Program ..... 2-12

Table 2-11 Non-Farm Related Firms Served by Short Line Loan/Grant Program Projects ..... 2-13

Table 2-12 263,000 and 286,000 Pound Car Fleets – UP and BNSF ..... 2-14

Table 2-13 Shuttle Train Elevators in Kansas..... 2-16

Table 3-1 Interviews Conducted ..... 3-1

Table 4-1 SFY 2000 - 2005: Railroads Participating in SRSIF ..... 4-1

Table 4-2 SFY 2000 – 2005: SRSIF Program Expenditures by Railroad ..... 4-2

Table 4-3 SFY 2000 - 2005: SRSIF Program Expenditures by Type ..... 4-4

Table 4-4 Miles of Track by Rail Weight and Rail Type..... 4-6

Table 4-5 Miles of Track by Rail Weight and Percent of Good Crossties ..... 4-6

Table 4-6 Miles of Track by Rail Weight and Ballast Depth..... 4-7

Table 6-1 Operational Benefits – Shipper Cost Savings ..... 6-6

Table 6-2 Avoided Abandonment – Shipper Cost Savings..... 6-9

Table 6-3 Direct And Indirect State And Local Income And Employment Benefits..... 6-12

Table 6-4 Direct Benefits Across Industry Sectors ..... 6-13

Table 6-5 Highway Maintenance Cost Savings ..... 6-14

Table 6-6 Total (Direct and Indirect) Impacts..... 6-15

## LIST OF FIGURES

Figure 2-1.	Kansas Railroad Map 2004.....	2-2
Figure 2-2	Rail Freight Flows – Kansas: 1998 (tons).....	2-7
Figure 2-3.	Shuttle Train Elevators in Kansas.....	2-17
Figure 3-1.	Map of Interviews in Kansas .....	3-2

## APPENDICES

<b>APPENDIX A</b>	<b>INTERVIEW FORMS (SHORT LINE RAILROAD, SHIPPER, CLASS I RAILROAD, OTHER)</b>
<b>APPENDIX B</b>	<b>LIST OF INTERVIEWS</b>
<b>APPENDIX C</b>	<b>OTHER STATES SHORT LINE PROGRAMS</b>
<b>APPENDIX D</b>	<b>PUBLIC INFORMATION OPEN HOUSE MEETINGS: POWERPOINT PRESENTATION, SIGN-IN SHEETS, AND COMPLETED COMMENT FORMS</b>
<b>APPENDIX E</b>	<b>GLOSSARY OF TERMS</b>
<b>APPENDIX F</b>	<b>APPENDIX TO CHAPTER 2.0 - FHWA OFFICE OF FREIGHT MANAGEMENT AND OPERATIONS - KANSAS STATE PROFILE</b>

# Executive Summary

## Study Purpose

As part of the State's Comprehensive Transportation Program (CTP), Kansas for the first time provided State funds for the improvement of the short line railroad system. Funds were authorized for state fiscal years 2000 through 2007. As with any new program, an evaluation should be conducted to document its impacts and benefits.

Parsons Brinckerhoff (PB) was retained to conduct a detailed review of the Kansas Short Line Loan/Grant Program, its expenditures and uses, its impacts on short line railroad operations, and its economic impacts. The PB project team was charged with the following mission:

Perform a review of the Short Line Rail Service Improvement Program Component of the CTP and answer the following questions:

- Has the Short Line Railroad Loan/Grant Program been a good investment of State dollars?
- Should the Program be continued beyond the final year of funding in state fiscal year 2007, and if so, at what level?

## Kansas Railroad Infrastructure

The rail system in Kansas is composed of 22 railroads. Four are Class I railroads (annual gross revenues of \$250 million or more) and 18 are Class III railroads (annual gross revenues of less than \$20 million). Railroad miles owned and operated by Class I railroads in Kansas total 2,339 miles. Railroad miles owned and operated by Class III (short line) railroads in the State total 2,003 miles for a total of 4,342 miles. The 4,342 miles of railroad ranks Kansas sixth in the nation in miles of railroad operated in a state. The short line railroads (Class III) operate 46 % of the rail lines in the State. Kansas short line railroads range in size from operations of just a few rail miles to one railroad operating 783 miles. The percentage of miles owned by short lines has increased in recent years due to Class I abandonment's and the sale of some less profitable Class I lines to short line railroads.

## Background

In June 1998, the Governor formed a working group of Kansas transportation stakeholders representing all modes of transportation to study the State's future transportation needs. Transportation 2000, as the group was named, was given the charge of "seeking the input, advice, and dreams of Kansas citizens, communities, regions and advocacy groups". Transportation 2000 was to assess the transportation progress of Kansas' current Comprehensive Highway Program (CHP) and create a priority needs assessment for the future.

The Study Group ultimately recommended a new Comprehensive Transportation Program. The Executive Summary of the Transportation 2000 Report to the Governor contained the following recommendations for rail:

***"The rail component of a transportation program should consist of an annual revolving loan program. It should be capitalized with State funds of up to \$5 million per year for eight years with matching fund requirements and oversight to be determined by the Secretary of Transportation."***

*A State funded program would assist Kansas short line railroads with track rehabilitation. The program would supplement the current revolving loan program which originated with previously programmed federal dollars. It is the Study Group's desire that the program would be available to address, over time, the needs of as many Kansas short lines as possible. The Study Group recognizes the importance of short line railroads in the transportation of agricultural and other products and the cost to highway maintenance by failing to support short line railroads.*

## State Rail Service Improvement Fund

The CTP was designed to address multi-modal transportation needs in Kansas and was signed into law on May 10, 1999. Through the CTP, the State Rail Service Improvement Fund (SRSIF) was established to provide short line railroads operating in Kansas with low-interest, 10-year revolving loans to be used primarily for track rehabilitation.

The SRSIF program (hereinafter referred to as the Program) began on July 1, 1999 (state fiscal year 2000) and provides \$3 million in loans/grants per year for eight years. It was intended to become self-sufficient at the end of the eight-year period through the repayment of principal and interest by the railroads.

In 2001, the State of Kansas was faced with the pending abandonment of the Central Kansas Railway (CKR). This short line railroad owned and operated approximately 900 miles of rail lines within the State. In an effort to keep key rail corridors in west central and south central Kansas in operation, a portion of the Program funds were granted to assist with the acquisition of the CKR. As a result of this unforeseen need, the Program will not become self-sustaining after fiscal year 2007 as originally envisioned.

## Study Process

This study collected and analyzed existing data related to freight trends and forecasts for the State of Kansas and examined key economic factors and trends that affect short line railroad operations in Kansas. The data for all rail improvement projects completed between 2000 and 2005 were reviewed.

The Study included interviews with nine of the 18 short line Railroads in Kansas, three Class I railroads, 27 interviews with key customers that ship and receive products on those railroads that have received Program funding, and ten interviews with agencies having economic development related interests around the State. These interviews were a key component in the overall analysis of the effectiveness of the Kansas Short Line Railroad Loan/Grant Program.

Two open house public meetings were also held in Phillipsburg and Wichita during the course of the study to gain additional perspectives from members of the general public regarding issues related to short line railroad service in the State.

The final phase of the study was an economic analysis to determine the effectiveness of the expenditure of public funds for the rehabilitation of short line railroads in the State. This analysis included a determination of the public and private sector benefits and costs resulting from the Program projects carried out over the past six years. Also, the economic analysis evaluated those local and regional economic benefits resulting from the program.

## Areas of Focus for the Study

During a pre-study meeting between KDOT and the PB project team, numerous key study issues were identified. These issues have remained primary areas of focus throughout the course of the study and are highlighted below:

- ***Has the Program been a success, can it continue to be successful in the future, and what issues might have an effect on the degree of future success?***

The analytical review of the Program's previous expenditures as discussed in the "Recommendations" section as well as the qualitative information obtained in the 49 interviews of railroads, shippers and other local officials confirm that the Program has been an effective use of public funds. Also, it is recommended that the Program should be continued to address the large remaining unmet needs of the short lines in terms of poor rail infrastructure that remains in the state.

Many of the issues, discussed in more detail below, will play key roles in the future success of Kansas short line railroads in meeting the State's freight transportation needs. The primary factor is the Class I railroads dependence on strong, efficient short line railroad partners. The ability of short lines to provide needed customer service and new business development that Class I railroads are not in a position to offer will be a key component of public/private partnerships critical to Kansas' future economic well being.

- ***What is the long term viability of short line railroads in Kansas?***

All indications confirm that short line railroads will continue to be an integral part of the State's transportation network. The Class I railroads all indicated that their new business models require very strong short line partners. Short line railroads are much better positioned to provide focused customer service, as the Class I railroads are more interested in the more profitable long-haul movement of goods.

One Class I railroad suggested that short lines are much better candidates for the location of new businesses, rather than congested Class I mainlines. To illustrate this point, the following analogy was used "it is not desirable to add curb cuts to an interstate highway". In other words, a Class I rail line is like an interstate highway such as I-70. Driveways for homes and businesses are not allowed direct connections to an interstate highway due to the conflicts and congestion that would result. Likewise, Class I mainlines are not the proper rail facility to directly serve local businesses requiring rail service, due to the resulting operational capacity impacts.

Also, four of the short lines in the State of Kansas are subsidiaries of three of the largest and most successful short line railroad holding companies in North America. The combination of these two points bodes well for short line railroading in the state.

- ***What are possible recommendations/thoughts on a new business plan for the Program?***

KDOT asked the project team to examine possible new elements of a business plan for the Program in the event the study concluded that the Program should be continued beyond fiscal year 2007. Samples of such thoughts for a new business plan for the Program are 1) Expand project eligibility for Program funds beyond short line rehabilitation projects to include structure replacement and other track infrastructure improvements for upgrading to handle 286,000 pound loads, and 2) Expand the Program's existing partnership between the State and short line railroads to include rail shippers as

eligible project applicants. Additional business plan recommendations are included in the ‘Recommendations’ section of this Executive Summary.

- ***How might Unit Train Grain Elevators affect the future of Kansas short line railroads?***

There has been considerable discussion of the impacts of unit grain trains (100 to 110 rail cars carrying one particular commodity such as wheat) and high capacity loading elevators within the State of Kansas. This analysis has concluded that while there has been some diversion of grain that would have previously been transported by short line railroads, the advent of unit train shuttle loading facilities has not and will not cause the demise of short lines within the State. The desires of short lines to keep grain business from moving to shuttle loaders can be seen through their use of creative grain rates. Also, the shipper’s desire to keep short line railroads in operation is seen by their willingness to forgo a few cents per bushel. There is more detailed discussion, including locations of these facilities, and their possible effects on Kansas short line railroads in Chapter 2, Section 2.3.4 of the Study.

- ***How might future rationalization (downsizing or streamlining) of the Class I railroad system in Kansas affect the state?***

“Rationalization” is the process of justifying the retention or downsizing of a railroad’s network, either through abandonment or sale/lease of a line to a short line railroad.

The interviews with representatives of the three Class I railroads operating in the state (BNSF Railway, Kansas City Southern Railroad, and Union Pacific Railroad) did not suggest any future revision of their tracks within the State of Kansas. However, additional information including public statements by key executives of those railroads suggests that there is still potential for additional downsizing of the Class I mileage within the state, as well as in other parts of the United States. Future rationalization of the Class I railroad system is discussed in more detail in Chapter 5.5 of the Study.

- ***What effect will the use of 286,000 pound rail cars have on Kansas’ short line railroads?***

The future of Class I grain hauling is moving toward the use of larger capacity rail hopper cars with a loaded weight of 286,000 pounds. The short line rail infrastructure across the State is in most cases inadequate to handle such heavy loads. The issue appears to exist mostly in the movement of grain. Most shippers of other commodities did not see a pressing need to move to the use of 286,000 pound cars. The study has concluded that consideration be given to short line infrastructure improvements capable of handling these heavy loads only on selected lines, when use of the higher capacity cars will impact the viability of the particular line segment.

- ***Can short line railroads be a part of the solution related to increases in the movement of freight?***

The study has concluded that short line railroads are a key component in the overall solution to moving freight within Kansas and throughout the country. The Class I railroads are moving toward networks of high volumes of high speed unit trains. They need the short lines that will create feeder systems to provide the service elements associated with pick-up and delivery. The short lines are also beginning to play a major role in industry and customer related switching in larger cities.

- ***What are other states doing (rail-related) and what effects might this have on Kansas?***

The study evaluated several other states that also have state-funded short line railroad assistance programs. The Study also investigated rail activities in Kansas' neighboring states that may impact future short line railroad operations within Kansas.

Chapter 3, Section 3.5 of the Study discusses the highlights of some other state's short line assistance programs. The State of Wisconsin has a program with similarities to the Kansas Short Line Railroad Loan/Grant Program. The Wisconsin program has provided \$80 million in grants to Wisconsin short lines since 1980 and \$58 million in loans to short lines since 1992.

Chapter 5.3 discusses details of some rail studies and activities in Colorado that may have significant impacts on future Kansas short line railroad operations. A new north/south rail bypass of the Colorado Front Range proposed to be built in eastern Colorado has the potential to open up new markets for Kansas shippers, particularly in the western part of Kansas. Also, the potential sale or lease of the state owned 121-mile short line between Avondale and Towner Colorado, which connects to the Kansas and Oklahoma Railroad (K&O) at Towner, Colorado could provide Kansas short lines with access to new Colorado markets. Other short line related activities in Nebraska and Oklahoma that may impact short line operations in Kansas are also noted in the Study.

- ***What are the results of the economic analysis of the effectiveness of the Kansas Short Line Loan/Grant Program?***

Chapter 6 details the economic analysis conducted as a part of this study. The analysis shows that the Program has been an effective use of public funds both from the standpoint of the benefits achieved from the rehabilitation projects and also from the grants to the K&O Railroad used to avoid the abandonment of several hundred miles of key short line infrastructure in central Kansas.

## Interview Highlights

The Study included interviews with nine of the 18 short line Railroads in Kansas, three Class I railroads, 27 interviews with key customers that ship and receive products on those railroads that have received Program funding, and ten interviews with agencies having economic development related interests around the State. These interviews were a key component of the analysis of the effectiveness of the Program. Below are highlights of those interviews, the results of which are provided in more detail in Chapter 3 of the Study:

### Short Line Railroad - Summary of Key Comments:

- Several short lines linked their increased business to improvements from Program projects.
- There was consensus that projects had reduced derailments.
- Short lines projected either steady levels of future business or some amount of growth.
- Short line railroads that are part of a larger holding company indicated that the Program contracts keep the railroad share of project funds in Kansas instead of the larger holding company moving the money elsewhere in the country.
- Significant amounts of inadequate infrastructure continue to exist.
- There exists some potential for additional short line abandonment in Kansas.

Grain Shippers - Summary of Key Comments:

- Ten companies project business to increase; four companies expect business to continue at existing levels.
- Upgrading sidings (tracks used for loading/unloading) and lengthening sidings should be eligible Program projects.
- 250,000 additional truck trips per year (125,000 loaded trucks and 125,000 trucks returning empty) would be on Kansas highways if these fourteen grain shippers lost rail service.
- Small elevators are losing some amounts of business to high capacity grain loading elevators known as “shuttle loaders”.
- Excellent customer service is the strength of the short line railroads.
- Weaknesses of the short lines are infrastructure condition and grain car availability.
- The majority of interviewees indicated additional short line infrastructure improvements are needed.

Non-grain Shippers – Summary of Key Comments:

- Eight companies project business growth (some very significant); five companies project stable levels of future business.
- There needs to be greater awareness of the Short Line Loan/Grant Program. Communicate through trade/industry associations.
- Trucks are often not an option for transporting many of the commodities shipped by these businesses. For those commodities that could use trucks, loss of rail service to these 13 shippers would result in 124,000 additional truckloads on Kansas highways.
- Four companies identified needed track, tie, and ballast improvements to increase operating speed and improve car turn around time. Other improvements suggested were back-up locomotives, expanding covered hopper car fleet, and upgrading track to be capable of carrying 286,000 pound loads.

Class I Railroad – Summary of Key Comments:

- All three Class I railroads are very dependent on a strong network of short line railroads.
- Short line railroads will do more industry switching for the Class I railroads in larger cities in the future.
- All three railroads indicated their short line partners have improved service and traffic to the Class I railroad following Program project improvements.
- Class I railroads are focusing on mainline economies of scale.
- Short lines may be more appropriate than some Class I railroads for the location of new business. It may be very difficult to serve a new customer on a high density Class I mainline. An analogy given was “it is not desirable to add curb cuts on an Interstate highway.” (i.e., it is not wise to add too many access points onto a freeway)

#### Public Officials – Summary of Key Comments:

- The majority of respondents interviewed were not familiar with the Program.
- The responses were nearly unanimous in expressing the importance of short line railroads to the local communities.
- There were instances where new businesses had been attracted to communities because of the existence of the short line railroad service.
- The consensus was that loss of short line rail service would be very damaging to local economies.
- Ethanol plants, bio-diesel plants, coal-fired electricity generating plants and other new businesses are locating in Kansas communities with short line rail service.
- Kansas Short Line Loan/Grant Program is a good partnership between the State and its short line railroads.

#### Economic Analysis

The economic analysis of the current Kansas Short Line Loan/Grant Program is comprised of a number of sub-components, which include:

- Shipper cost savings due to operational (primarily speed) improvements and time savings brought about by individual rehabilitation projects.
- Shipper cost savings due to the Kansas & Oklahoma's acquisition of the Central Kansas Railway (CKR), which would otherwise have been abandoned.
- Impacts of the Loan/Grant Program on local economic activity, including business earnings, employment and wage earnings. These are derived from increased farm and other business earnings resulting from more efficient rail service, shipper cost savings resulting from the preservation of the CKR system by the K&O, and avoided business closures which would likely have occurred in small but significant numbers, absent the acquisition of the CKR by the K&O.
- Public sector benefits of the Program, including less truck vehicle miles of travel (VMT) and thus lower highway maintenance costs, which otherwise would have increased substantially had the CKR been abandoned, and State and local tax revenues associated with increased business and wage earnings, including sales and income tax revenues.

#### **PRIVATE SECTOR BENEFITS**

##### **Shipper Cost Savings for Existing Customers – Operational Improvements**

Individual rehabilitation projects have resulted in operational improvements, which were measured and quantified in the study in terms of speed increases and time savings on the railroad. These time savings were assumed to result in operational cost savings which are “passed on” to shippers in the form of higher grain prices or, for non-agricultural commodities, in the form of lower rail tariff rates and thus, higher net business earnings. On an annual basis, direct operational benefits (shipper cost savings) were estimated to equal about \$19 million in 2004 dollars. On a ten year Present Value basis, about \$155 million in savings were realized. The ten year benefits are approximately 6.6 times the **total** capital cost of rehabilitation projects, including KDOT grants, loans, and railroad contributions.

### **Shipper Cost Savings for Existing Customers – Acquisition of the CKR**

The transport (shipper) cost savings for existing shippers resulting from the acquisition of the CKR by K&O are derived from the cost differential between rail and truck transport. On a single year basis (2004), total transportation cost savings for all commodity/industry sectors is about \$35 million. Of this, wheat comprises about 45 percent of these benefits. Together, wheat, corn, soy, and sorghum account for 58 percent of the total volume. On a ten year Present Value basis, the total shipper cost savings are close to \$284 million – substantially greater than the acquisition grants made by KDOT.

### **Avoided Business Closures from Acquisition of the CKR**

Based on shipper surveys conducted as part of this study, it was estimated that about 17.5% of non-farm shippers would have gone out of business if the CKR had been abandoned. Using this information, combined with an inventory of non-agricultural shippers on the K&O system, it was estimated that total lost business earnings (which includes wages paid to workers) would equal about \$11.28 million annually.

### **Total Private Benefits – Rehabilitation Projects and CKR Acquisition**

Total private sector direct and indirect (i.e., multiplier) benefits of all types (i.e., shipper cost savings from operational improvements, shipper cost savings and prevention of business closures by rescuing the CKR system from abandonment) on a single year basis equal about \$156 million in total business earnings, \$63.3 million in personal wage income, and about 3200 jobs (annual basis). The bulk of direct business earnings benefits are in the form of shipper cost savings. On a 10 year Present Value basis, the benefits amount to over \$1 billion in business earnings, and \$425 million in personal wage income.

## **PUBLIC SECTOR BENEFITS**

For this analysis, public sector benefits are assumed to include two components: 1) highway maintenance cost savings, which are a combination of state and local spending; and 2) state and local income and sales tax levies, which would otherwise have not been earned in the absence of the Loan/Grant program.

### **Highway Maintenance Cost Savings**

Previous studies of the potential economic consequences of short line railroad abandonment in Kansas have largely focused on the increased highway maintenance costs that would occur, should freight now carried by the railroads be shifted to truck.

Similarly here, these cost savings were estimated based on the estimated reduction (the avoided increase) in truck VMT resulting from the acquisition of the CKR system by the K&O. Highway maintenance cost savings were estimated by applying an average highway maintenance cost per truck mile from definitive FHWA sources to estimates of truck VMT that would be incurred had the CKR system been abandoned. Highway maintenance and rehabilitation cost savings were estimated to equal \$1.47 million per year, or \$12.0 million Present Value over a ten year period.

### **State and Local Tax Revenues**

State and local tax revenue benefits were estimated based on the additional economic earnings, personal wage income and retail sales associated with the state and local benefits assessment. State income tax benefits were estimated to equal \$2.2 million per year; state sales tax benefits were

estimated to equal \$1.2 million per year. On a 10 year Present Value Basis, state tax benefits for sales and income taxes combined equal approximately \$22.8 million. The 10 year Present Value of local tax benefits equals \$8.9 million.

## Conclusions

**The Kansas Short Line Loan/Grant Program has been a good investment of state dollars, and the Program should be continued after the final year of funding in fiscal year 2007.**

**The economic analysis of Program expenditures from 2000 – 20005 has identified significant benefits to both the public and private sectors. For example, the combined ten year present value of public sector benefits for state and local tax revenues and highway maintenance cost savings is \$43.7 million. The combined ten year present value of private sector benefits, both direct and indirect, from rehabilitation projects and acquisition of the CKR by the K&O, is over \$1 billion in business earnings and \$425 million in personal wage income.**

**Also, the Class I railroads, are unanimous in their support of the Program and the financial support the Program provides to the Class I railroads key transportation partners, the short line railroads. Healthy short line railroads are absolutely vital to the Class I railroads, which are the lifeline for moving more than 330 million tons of agricultural products, coal, automobiles, aircraft parts, food products, sand/gravel/cement, and other commodities within and through the state of Kansas each year.**

**Significant infrastructure requirements such as rehabilitation of track and structures, still face the Kansas short line railroads in order for the short lines to be able to provide safe, dependable, and efficient service to the hundreds of Kansas businesses that rely on short line railroads to transport their products and goods. The magnitude of this infrastructure need is sufficient to warrant a multi-year extension of this effective Program.**

## Recommendations

Chapter 8 of the Final Report contains specific recommendations related to the Kansas Short Line Loan/Grant Program. Key recommendations include:

### **Program Continuation**

1. The Program should be continued beyond the current statutory deadline of the end of fiscal year 2007. As was originally envisioned, the Program should continue to emphasize “assisting Kansas short line railroads with track rehabilitation”.

### **Expanded Project Eligibility and Criteria**

2. There should be consideration for expanded program eligibility to include the following additional project categories:
  - Structure replacement or upgrading and other track infrastructure improvements to handle 286,000 pound loads
  - Upgrading/extending industrial sidings that serve rail customers
  - Acquisition of grain car fleets by partnering with Kansas port authorities
  - Acquisition of new or rebuilt locomotives or other rail motive power to assure reliable service
3. All such additional projects should also be subject to a benefit/cost methodology analysis used to evaluate Program projects funded by KDOT.
4. KDOT should develop relevant criteria and measures of appropriate economic benefit for each project category, which can then be incorporated into the benefit/cost methodology related to the new areas of project eligibility.

### **Program Funding**

#### **Funding amounts:**

5. The amount of funding for the track rehabilitation element of the Program should be continued at \$3 million per year (adjusted for inflation).
6. Consideration should be given to expanding the existing partnership of State and short line railroads to include shippers. Such partnerships were requested by many shippers during the interviews conducted during this study. The ability to leverage additional funding would be consistent with the overall trend in this decade to an expansion of public/private partnerships. Shipper participation projects would be especially appropriate for the “industry siding” and “acquisition of rail related equipment” project categories noted above.
7. Reinstate a grant component to the Program. The Program worked effectively in its early years and other states are providing grants effectively in their assistance to address the unmet needs of the short line railroad infrastructure in their states. Continue to include an appropriate requirement to re-pay a pro-rata share of any grant in the event of loss of rail service.

8. Additional funding, at \$3 million per year, should be considered to accomplish specific, stated objectives in the following areas:
  - 286,000 pound load capability on specified grain corridors
  - Industry siding upgrades and extensions
  - Acquisition of rail related equipment (rail cars and spare locomotives)

These expenditures should be consistent with a pre-determined plan, as identified in the Rail Plan update recommendation noted below.

### **Program Administration by KDOT**

#### **Project Documentation:**

9. The use of digital photos taken before and after projects is an excellent documentation tool. However, the use of the photos could be improved by taking the before and after photos at the exact same location. This would better document the significance of the improvement.
10. Locate the KDOT project number in a prominent position on the cover of the Application for Funds once the project has been approved.
11. Any “slow orders” that restrict track speed to less than 25 mph should be noted on the applications. Several instances were noted in the applications where in Exhibit 6 – Timetable Speed, a speed of 25 mph was used when in fact the project was occurring on excepted or Class I track, which is limited to 10 mph due to track conditions.

#### **Application Process:**

12. Update the “Short Line Railroad Loan Guidelines” as appropriate to incorporate any changes that may be made to the program if it is re-authorized beyond fiscal year 2007. Attach a copy of these guidelines to the applications for SRSIF funding.
13. Revise the benefit/cost methodology. The current methodology assumes abandonment in every case. This is an overestimation of the result of a “do-nothing” scenario and should be revised to better reflect the reality of the situation.

#### **State Rail Plan Update**

14. KDOT’s next update to the Kansas Rail Plan should include an analysis of the level of need for any possible expansion of the Program beyond the \$3 million per year currently in the Program. This would apply to issues such as the 286,000 pound capability of the short line network, industry siding upgrades/extensions, and equipment acquisition (rail cars or spare locomotives). This analysis would develop a detailed inventory of the condition of the short line infrastructure as well as a prioritization of rail corridors for consideration of upgrades to track and structures to accommodate 286,000 pound loads. This analysis would be a planning tool that would provide valuable input into future Program decision making.

15. Future Rail Plan updates should include an annual submittal of carload information by line segment, rather than total system-wide carloads, by the short line railroads. Such information is currently provided to the State by the Class I railroads on a system-wide basis. Short line information submitted by line segment would be valuable support information in the SRSIF project selection process.

**State Rail Advisory Committee**

16. KDOT should re-convene its State Rail Advisory Board. This group should include representatives of the short line and Class I railroads and possibly shippers or members of trade/industry associations that have vital interests in rail transportation. The Advisory Board would provide KDOT Executive Management and Rail Affairs Unit staff with guidance regarding rail issues affecting the state of Kansas. This Advisory Board would also bring about opportunities for better communication and cooperation between the short line and Class I railroads. This need was an often mentioned issue in the interviews conducted for this study. This Advisory Board would also be a mechanism for KDOT to continue with its objective to be more open with its constituents regarding its programs.

## 1.0 INTRODUCTION

In July 1999, Kansas provided for the first time State funds for the improvement of the short line railroad system. Funds were provided for state fiscal years 2000 through 2007. This study reviews the economic impacts of the rail improvement program and answers the following questions:

- Has the Short Line Railroad Loan/Grant Program been a good investment of State dollars?
- Should funding for the Program be continued beyond the final year of funding in state fiscal year 2007, and if so, at what level?

## 1.1 BACKGROUND

In June of 1998, a working group of Kansas transportation stakeholders was formed to study the State's future transportation needs. Transportation 2000, as the group was named, was given the charge of "seeking the input, advice, and dreams of Kansas citizens, communities, regions and advocacy groups". Transportation 2000 was to assess the status of transportation systems in Kansas and to create a priority needs assessment for the future.

Transportation 2000 was charged with looking beyond traditional emphasis on roads and "to entertain ideas Kansans hold for airport improvements, railroad safety, mass transit, and a stronger State partnership with city and county government." The Governor told the Study Group that, "The history of our state is full of examples of people's desire to move safely and efficiently from one place to another. From the Chisolm, Santa Fe, and Oregon Trails to the Atchison-Topeka and Santa Fe Railroad; from pioneers in automobile and airplane development, such as Walter Chrysler, Clyde Cessna, Walter Beech, and Bill Lear; to Dwight Eisenhower and the Interstate Highway System, the Kansas Turnpike and BNSF railroads; Kansas and Kansans have always understood the desire to travel. To this point in our history, we have made the transportation infrastructure of Kansas a priority". The Governor went on to say he does not believe that priority should change.

Some of the eventual conclusions of the Transportation 2000 Study Group were:

- Kansas needed a new Transportation Program
- Existing resources were not adequate, and
- All modes of transportation should be funded

The Study Group recommended an eight-year Comprehensive Transportation Program. The Executive Summary of the Transportation 2000 Report to the Governor contained the following recommendations for rail:

***"The rail component of a transportation program should consist of an annual revolving loan program. It should be capitalized with State funds of up to \$5 million per year for eight years with matching funds requirements and oversight to be determined by the Secretary of Transportation.***

***A State funded program would assist Kansas short line railroads with track rehabilitation. The program would supplement the current revolving loan***

*program which originated with previously programmed federal dollars. It is the Study Group's desire that the program would be available to address, over time, the needs of as many Kansas short lines as possible. The Study Group recognizes the importance of short line railroads in the transportation of agricultural and other products and the cost to highway maintenance by failing to support short line railroads."*

The current Administration has continued to emphasize the importance of maintaining a commitment to the Comprehensive Transportation Program.

### 1.1.1 State Rail Service Improvement Fund Program History

The State Comprehensive Transportation Program (CTP) was designed to address multi-modal transportation needs in Kansas. The new CTP (House Bill 2071) was signed into law on May 10, 1999. Through the CTP, the State Rail Service Improvement Fund (SRSIF) was established to provide short line railroads operating in Kansas with low-interest, 10-year revolving loans to be used primarily for track rehabilitation.

The SRSIF program (hereinafter referred to as the Program) was designed by KDOT to be operated in a similar fashion to the Federal Local Rail Freight Assistance (LRFA) program. In 1989, the Kansas Legislature granted KDOT the authority to loan Federal Railroad Administration (FRA) funds to short line railroads through the LRFA program. The LRFA program provides a low-interest revolving loan/grant program below the prime interest rate. The payments of those loans are used to generate additional loans. There are currently approximately \$160,000 in the LRFA program.

The Program began on July 1, 1999. It originally was intended to provide \$3 million in loans per year for eight years. It was intended to become self-sufficient at the end of the eight-year period through the re-payment of principal and interest by the railroads.

In 2001, the State of Kansas and KDOT were faced with the pending abandonment of the Central Kansas Railway (CKR) in south central and western Kansas. That short line railroad owned and operated approximately 900 miles of rail lines within the State. Watco Companies, Inc. (Watco) which was operating the South Kansas and Oklahoma Railroad in southeast Kansas at that time, approached KDOT about the possibility of receiving State assistance in its attempt to acquire the CKR and to keep critical short lines within the State from being abandoned. In order to prevent the abandonment of this mileage, Watco and KDOT reached agreement on using a portion of the Program funds for grants to Watco's newly formed Kansas and Oklahoma Railroad to acquire the CKR from its parent company, OmniTRAX Inc. of Denver, Colorado on June 29, 2001.

The K&O was awarded \$2,000,000 of Program grant funds in both 2001 and 2002 and \$1,500,000 in 2003, 2004, and 2005 with a final payment of \$1,500,000 scheduled for July 1, 2006 as part of the agreement with KDOT which prevented the loss of rail service through key rail corridors in west central and south central Kansas.

## 2.0 OVERVIEW OF ECONOMIC TRENDS AND FREIGHT FLOWS

Since 1920, approximately 4,700 rail miles were abandoned in Kansas.<sup>1</sup> Between 1991 and 2004, approximately 1,775 miles of rail were abandoned, of which 1,156 miles were short line<sup>2</sup>. Despite continued rail abandonment, Kansas with a railroad mileage of 4,342 miles<sup>3</sup> ranks 6th in the United States for total rail miles. Of this total mileage, Class III (short line) carriers own 1,642 rail miles, approximately 38 percent of the total mileage, and operate 2,003 rail miles, approximately 46 percent of the total mileage.

### 2.1 The Short Line Rail System

Eighteen short line railroads operate in the State, of which two are excursion/tourist passenger lines (see Figure 2-1 for map<sup>4</sup>). The Class III freight and switching and/or terminal rail lines are shown in Table 2-1.

**Table 2-1**  
**Class III Freight and Switching/Terminal Lines**

Short Line Railroad	Rail Miles Owned	Rail Miles Operated	Total
Kansas & Oklahoma (KO)	616	167	783
South Kansas & Oklahoma (SKO)	305		305
Kyle Railroad (KYLE)	16	176	192
Mid States Port Authority (MSPA)	255		255
Cimarron Valley Railway (CVR)	182		182
Nebraska Kansas Colorado Railway (NKC)	122		122
Garden City Western (GCW)	45		45
Boot Hill & Western (BHW)	26		26
Kansas City Terminal Railroad (KCT)	25		25
Victoria & Southern Railway (V&S)	21		21
City of Blackwell Oklahoma (CBO)	18		18
Blue Rapids Railroad (BRR)		10	10
New Century AirCenter (NCAC)	5		5
Hutchinson & Northern (H&N)	3		3
Wichita Terminal Association (WTA)	3		3
Missouri & Northern Arkansas (M&N)		8	8
Total	1,642	361	2,003

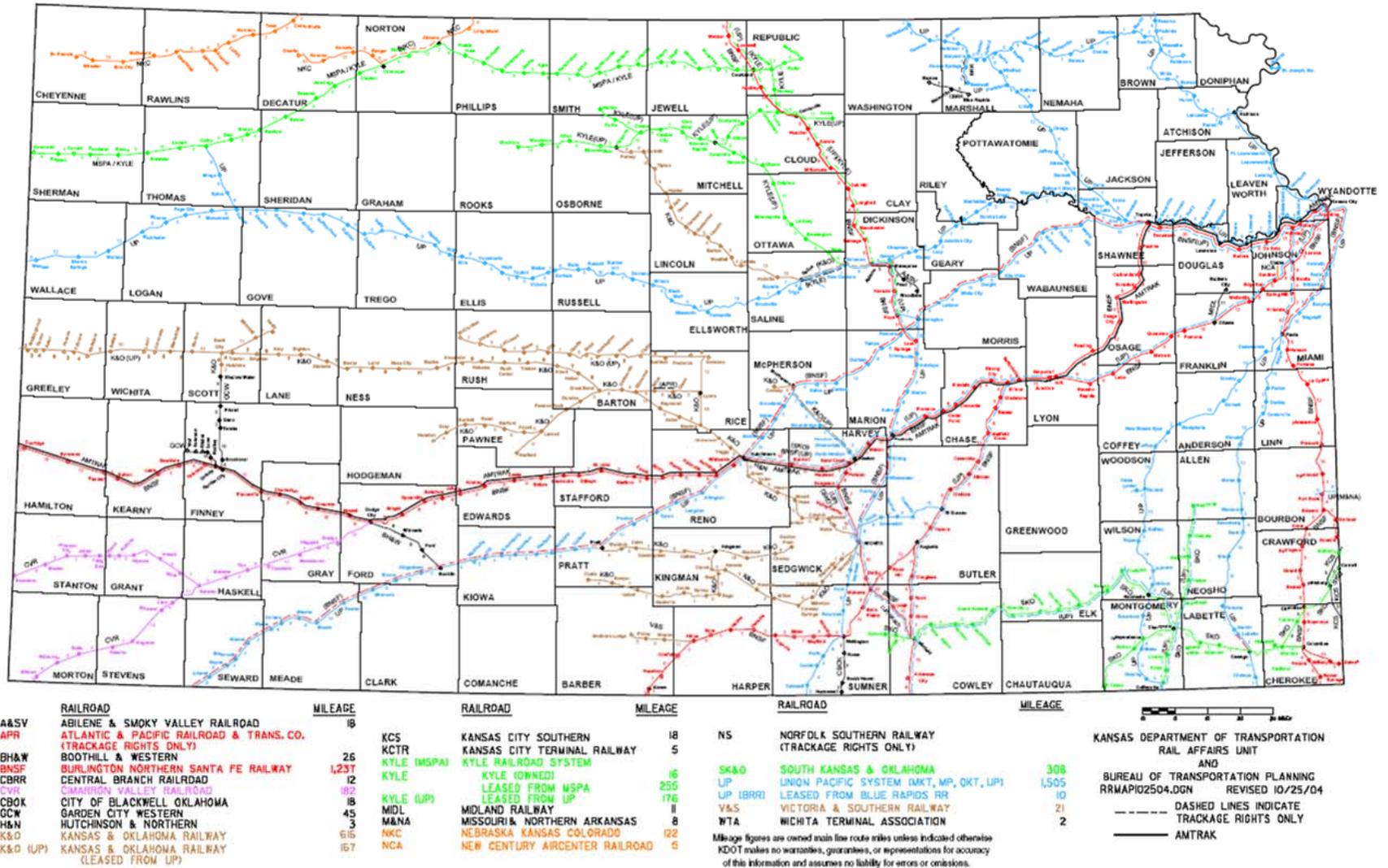
<sup>1</sup> Kansas Department of Transportation, *Kansas Rail Plan 2003-2004*

<sup>2</sup> Kansas Department of Transportation, *Kansas Rail Plan 2003-2004*

<sup>3</sup> Kansas Department of Transportation, *Kansas Rail Plan 2003-2004*

<sup>4</sup> Kansas Department of Transportation, <http://www.ksdot.org/burrrail/rail/publications/rrmap04.pdf>

Figure 2-1. Kansas Railroad Map 2004



### 2.1.1 Communities Served by SRSIF Projects

The improvements to the State's short line rail infrastructure through the Program have provided cost savings in the provision of freight services and more reliable service for shippers, as well as averting the total abandonment of rail service in some corridors. This has enhanced competition and improved market access.

Retention and improvement of rail service supports Kansas' agriculture and other businesses, and is particularly important for establishments in rural regions, the location of most of the Program-funded projects. Table 2-2 lists communities served by Program-funded projects. [See Tables 2.10 and 2.11 later in this chapter for a sampling of the agricultural and other businesses served by the rail lines funded through the Program.] Absent the projects funded through the Program, poor service – and, of course, lack of rail service – would adversely affect businesses throughout the State, resulting in direct negative socioeconomic effects on the communities listed in Table 2-2.

As noted by the Kansas Rural Development Council<sup>5</sup>, negative impacts to local communities of short line rail abandonment include:

- (1) farmers having lower grain prices and higher shipping costs – i.e., lower revenue and increased production costs;
- (2) rail shippers having higher transportation costs and lower profits;
- (3) shippers having reduced market options;
- (4) loss of businesses directly and indirectly tied to rail shippers; and
- (5) decreased economic development opportunities for rural communities.

From an environmental perspective, the resultant modal shift towards trucking would significantly increase vehicular emissions.

## 2.2 Economic Overview of Kansas

Since late 2000, in line with national economic trends, the Kansas economy has endured a recessionary period. This phase was accentuated by higher than average levels of unemployment, including manufacturing job loss of nearly 35,000 and a decrease in farm employment of approximately 20 percent. Kansas' economic recovery in the past year has been more modest than in the rest of the country. While there has been growth in services and retailing, the sluggish recovery was accompanied by a 2005 unemployment rate of 5.8 percent, which is 0.5 percent higher than the national average. In terms of specific industries, goods producing, service producing, manufacturing, and construction industries increased employment by 1.8 percent, 2 percent, 3.3 percent, and 1.3 percent respectively, while natural resource and mining employment decreased by 1.5 percent<sup>6</sup>.

Nevertheless, the announcement by General Motors of the construction of a new Saturn plant in Fairfax, coupled with favorable crop production, strong cattle prices, and increased farm income are contributing to strengthening Kansas's economic recovery.

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<sup>5</sup> Bittel, Kansas Rural Development Council *Kansas Crossroads: The Future of Rail Freight Movements in Rural Kansas* 2004

<sup>6</sup> Kansas Division of the Budget, *The Governor's Economic and Demographic Report*, 2005

**Table 2-2**  
**Communities Served by Short Line Loan/Grant Program Projects**

Communities Served	Project Number	Communities Served	Project Number
Alden	8029-44	Hoisington Line communities: Frederick, Bushton, Hoisington, Claflin, Bison, LaCrosse, McCrackin, Brownell, Ransom, Healy, Utica	8028-01
Altamont	8054-35	Independence	8028-01, 8054-22, 8054-31
Amy	8029-20	Humboldt	8054-01
Atwood	8049-01	Johnson County Airport/New Century Air Center	8072-01
Avian	8054-38	Kanorado	8033-01, 8033-11
Beardsley	8049-01	Kensington	8033-01
Belleville	8033-01	Levant	8033-11
Bird City	8049-01	Liberty	8054-38
Blakeman	8049-01	Longton	8054-51
Bolton	8054-22	Ludall	8049-01
Breton	8033-11, 8033-31	Lyons	8028-01
Brewster	8033-11	McDonald	8049-01
Burden	8054-37	McPherson	8029-23
Buxton	8054-51	Medicine Lodge	8024-51
Caney	8054-22	Morehead	8054-02
Caruso	8033-11	Mound Valley	8054-35
Cedarbluffs	8049-01	Neodesha	8054-21
Chanute	8054-02, 8054-31, 8054-42	New Salem	8054-37
Cherokee	8054-33	Norway	8033-41
Cherryvale	8054-02, 8054-2, 8054-22, 8054-31, 8054-35, 8054-38	Oswego	8054-35
Clayton	8033-01	Phillipsburg	8033-01
Clearwater	8029-22, 8029-45	Pittsburg	8054-01, 8054-31, 8054-33
Coffeyville	8054-01, 8054-31, 8054-38	Pixley	8024-51
Colby	8033-01, 8033-11, 8033-31	Raymond	8029-44
Conway	8029-23	Rexford	8033-11, 8033-31
Conway Springs	8029-22, 8029-45	Ruleton	8033-11
Dodge City	8019-21	Scandia	8033-41
Dresden	8033-01, 8033-11, 8033-31	Scott City and west	8028-01, 8029-32
Earlton	8054-02	Selden	8033-11, 8033-31
Edson	8033-11	Sharon	8024-51
Ellinwood	8029-44	Sherwin	8054-33, 8054-51, 8054-52
Fredonia	8054-01, 8054-21, 8054-51, 8054-52	St. Francis	8049-01
Frontier	8029-22, 8029-45	Sterling	8028-01, 8029-33
Gem	8033-11, 8033-31	Thayer	8054-02, 8054-42
Geneseo	8028-01	Traer	8049-01
Goodland	8033-11	Wheeler	8049-01
Grigston	8029-32	Wichita	8029-22, 8029-43
Hallowell	8054-35	Winfield	8054-01, 8054-31
Herndon	8049-01	Yaggy	8029-33
		Yuma	8033-41

Source: SRSIF Applications for Projects Approved

### 2.2.1 Agricultural Sector

In terms of agriculture, Kansas is the leading state in the nation in wheat production and wheat flour milled,<sup>7</sup> accounting for 20 percent of U.S. wheat production. Despite such lofty production volumes, wheat is not the primary crop in Kansas. During the last five year period, more corn than wheat was produced except in 2003. As illustrated in Table 2-3, in 2004 corn production significantly outweighed wheat production – a production volume difference of approximately 117.5 million bushels. According to the Kansas Corn Growers Association, corn production in Kansas has more than doubled in the last 10 years. Kansas is also the nation's leading producer of grain sorghum (also called milo), producing over 48 percent of the nation's crop. In addition to the aforementioned crops, the region also grows or produces sunflowers, hay, soybeans, sugar, and molasses. The Kansas Department of Agriculture indicates that in terms of livestock, Kansas is second in cattle and calves on farms and third in red meat production within the U.S.

**Table 2-3**  
**Kansas Grain Production during Initial Years of Short Line Loan/Grant Program**  
**(Bushels)**

Grain	2000	2001	2002	2003	2004
Corn	412,100,000	387,350,000	301,600,000	300,000,000	432,000,000
Wheat	347,800,000	328,000,000	270,600,000	480,000,000	314,500,000
Sorghum	188,800,000	232,500,000	135,000,000	130,500,000	220,400,000
Soybeans	50,000,000	87,360,000	58,420,000	57,040,000	111,110,000

Source: Kansas Agricultural Statistics, Kansas Department of Agriculture and National Agricultural Statistics Service, <http://www.usda.gov/nass/>

The potential for new ethanol production plants in Kansas will have a positive impact on Kansas' short line railroads in addition to the major boost these facilities will provide to certain rural communities and their tax base. The interviews of short line railroads and economic development agencies held as a part of this Study identified potential new ethanol plants at Goodland and Phillipsburg on the Kyle Railroad and also on the Cimarron Valley Railroad in southwestern Kansas. These facilities require rail service and also have a very positive impact on the production and demand for both corn and grain sorghum.

### 2.2.2 Manufacturing Sector

Manufacturing accounts for over 15 percent of the State's total employment. Within manufacturing, 30 percent of the workforce is employed by the aviation industry<sup>8</sup>. The aviation manufacturing cluster, which includes Boeing, Cessna, Raytheon, and Bombardier Learjet, is mostly concentrated in the Wichita region.

<sup>7</sup> Kansas Secretary of Agriculture Adrian Polansky, [www.ksda.gov](http://www.ksda.gov)

<sup>8</sup> Kansas Division of the Budget, "Governor's Economic and Demographic Report 2004-2005"

Major commodity groups manufactured in Kansas that rely on shipment by rail are motorized and other vehicles and parts. [See Section 2.3.2 for rail freight flows by commodity, and Table 2-11 for non-farm businesses served by short line railroads which have been retained and/or improved through Program funding.]

### 2.2.3 International Exports

In 2004, international exports from Kansas rose to \$4.9 billion, an increase of 8 percent over 2003 and 30 percent increase since 1996. The airline industry has also begun to rebound to 1998 levels, with an approximate export value of \$140 million in 2004. Kansas's largest export market is Canada, accounting for 27 percent of its total exports. In 1998, wheat and flour exports accounted for \$774 million of the total crop value of \$1.26 billion, approximately 61 percent of the total produced<sup>9</sup>. Kansas is among the states with the highest volume of exports to NAFTA. In 2002, exports from Kansas to Mexico were \$664 million – a 21.4 percent increase over 2001. Overall, in 2004 exports to Canada and Mexico were up 20 percent over 2003 levels (primarily due to the export of vehicles to Canada); exports to Western Europe were up 38 percent, and exports to China were up 20 percent.

The Central American - Dominican Republic Free Trade Agreement is expected to further boost opportunities for Kansas' exporters. Kansas exports to the CAFTA-DR region totaled \$23 million in 2004.

## 2.3 Kansas Freight Flows and Trends

### 2.3.1 Freight Modal Characteristics

As Table 2-4 illustrates, the choice of mode is in part dependent on its value and time sensitivity. Surface transportation is generally used for cargos of lesser value by weight than air shipments, and the value of rail freight shipments by weight is somewhat less than that of truck shipments. Rail is particularly, but not exclusively, competitive for long distance transportation of bulk commodities that are not time sensitive. The range in cost per pound for rail shown below equates to 1 cent per pound for rail carload and 3 cents per pound for rail intermodal.

**Table 2-4**  
**Freight Industry Modal Characteristics**

	<b>Air</b>	<b>Truck</b>	<b>Rail</b>	<b>Water</b>
Speed	Fast	Mid	Mid/Slow	Slow
Cost per lb. (in 2000 dollars) <sup>10</sup>	\$1.50	5-10c	1-3c	0.5c
Weight of Shipments	Low	Mid	High/Mid	High
Average Miles per Shipment (2002) <sup>11</sup>	1,866	168	893	657
Average Value per Ton of Cargo (2002) <sup>12</sup>	\$70,468	\$795	\$166	\$131

<sup>9</sup> Kansas Wheat Commission, [www.kswheat.com](http://www.kswheat.com), 2003; Susan Seeber, Kansas World Trade Center, *Wichita Business Journal*, 2/3/04

<sup>10</sup> *Transportation: Invest in America, Bottom Line Report*, 3<sup>rd</sup> edition, American Association of State Highway and Transportation Officials, 2000, p.16

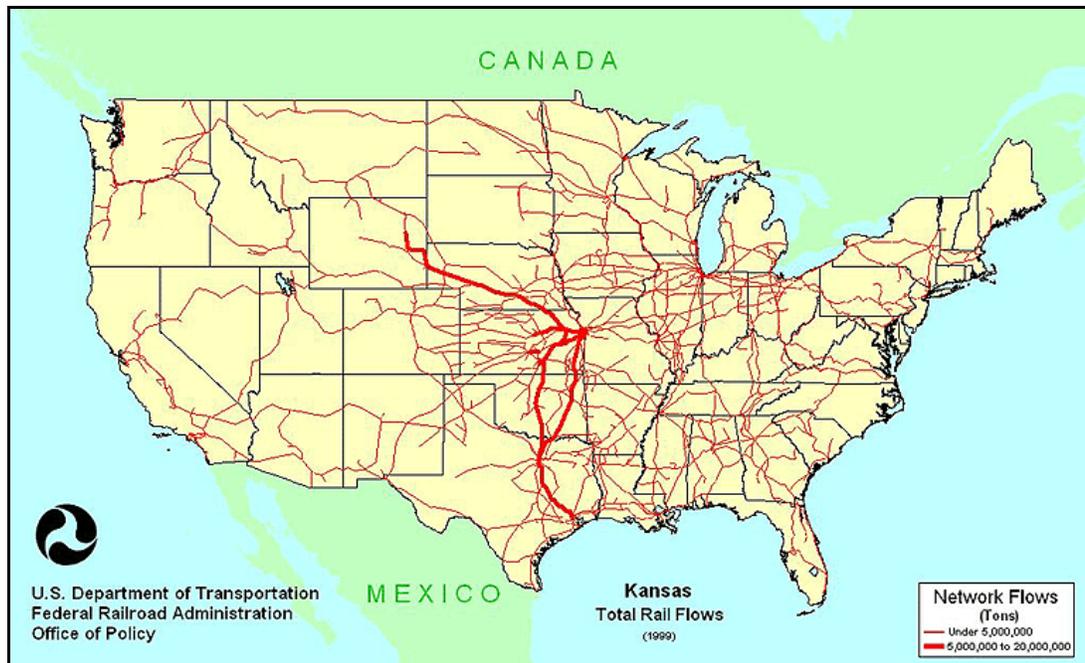
<sup>11</sup> U.S. Department of Transportation, "2002 Economic Census-Transportation" 2004, p. 3

<sup>12</sup> U.S. Department of Transportation, "2002 Economic Census-Transportation" 2004, p. 1

In 2004, U.S. freight revenues totaled a staggering \$765.3 billion and are expected to grow 71 percent to over \$1.3 trillion by 2016<sup>13</sup>. In 2004, rail delivered 2.06 billion tons of freight, nearly 1.2 trillion ton-miles and accounted for 15.6 percent of total freight tonnage transported in the US<sup>14</sup>.

Figure 2-2 shows rail freight flows (by weight) to, from and within Kansas, as illustrated by the Federal Railroad Administration.<sup>15</sup> The predominance of coal traffic from the Powder River Basin in Wyoming and on the major north-south route to Texas is apparent.

**Figure 2-2**  
**Rail Freight Flows – Kansas: 1998 (tons)**



For Kansas, the total value of freight shipped from the state in 2002 was \$95.3 billion, a nominal value increase of approximately 29 percent from 1997, representing a compound average annual growth rate (CAGR) of 5.26 percent, despite the nationwide recession beginning in 2001.

In terms of mode choice, the nominal value of freight shipped from Kansas via trucks increased by 27 percent (CAGR 4.9 percent), while freight shipped from Kansas via rail increased by 60 percent (CAGR 9.81 percent). This higher percentage change in the nominal value of rail freight, exemplifies the continued significance of rail to Kansas' economic recovery (Table 2-5<sup>16</sup>). Moreover, the increased value occurred during the same period when rail tonnage was decreasing, perhaps reflecting the decline in wheat production from its peak in 1997 to its low level in 2002.

<sup>13</sup> American Trucking Associations, "US Freight Transport Forecast to....2016" (2005)

<sup>14</sup> American Trucking Associations, "US Freight Transport Forecast to....2016" (2005)

<sup>15</sup> US Department of Transportation, Federal Highway Administration, Freight Management and Operations, "State Profile – Kansas," [http://ops.fhwa.dot.gov/freight/freight\\_analysis/state\\_info/kansas/profile\\_ks.htm](http://ops.fhwa.dot.gov/freight/freight_analysis/state_info/kansas/profile_ks.htm), 9-28-05

<sup>16</sup> "Commodity Flow Survey 2002," Bureau of Transportation Statistics and US Census Bureau 2002 Economic Census

This increased value may signify a change in the type of goods shipped via rail; a shift towards the transport of higher value added goods. Despite these observations, it's important to note that trucks in 2002 accounted for approximately 73 percent and 85 percent, respectively, of the total value and tonnage of freight shipped from Kansas.<sup>17</sup>

**Table 2-5**  
**Freight Flows – Value and Tonnage (Kansas)**

Value	Total	Mode	
		Truck	Rail
1997	\$ 73.9 Billion	\$ 54.8 Billion	\$ 5.7 Billion
2002	\$ 95.5 Billion	\$ 69.6 Billion	\$ 9.1 Billion
CAGR	5.26%	4.90%	9.81%
Tonnage			
1997	137.9 M	95.5 M	35.4 M
2002	188.3 M	159.8 M	23.7 M
CAGR	6.43%	10.84%	-7.71%

### 2.3.2 Freight by Commodity

In 2003, the commodity categories of Farm Products and Food Products were the top rail shipments originating from Kansas with approximately 10 and three million tons shipped respectively. Although Farm and Food Products account for 64 percent of total share, their share quotient has significantly declined since 1999, when they accounted for 74 percent of total share. Moreover, their respective percent change of minus 38 percent and minus 25 percent emphasizes the significance of that decrease in terms of rail's dependence on agriculture and agriculture's dependence on rail. Conversely, the commodity groups Chemicals and Mixed Freight have experienced an increase in rail shipments from 1999 to 2003, together accounting for an increase from 13 percent to 19 percent of total shipments. In that time period, the absolute tonnage (percentage change) of each of those commodity groups increased by 2 percent and 25 percent, respectively. Overall, rail shipments (by weight) originating in Kansas have decreased by 25 percent (see Table 2-6).

For rail shipments terminating in Kansas, Coal accounted for 57 percent of total share. Moreover, since 1999 Coal's shipment tonnage has increased by 157 percent. As with shipments originating in the State, the share quotient for Farm Products terminating in Kansas has decreased over time, from 12 percent to 7 percent. Overall, rail shipments terminating in Kansas have increased by 53 percent (see Table 2-7).

<sup>17</sup> The US Department of Transportation and the US Department of Commerce conduct an Economic Census every five years; the resulting Commodity Flow Survey documents commodities shipped from each state, their value, weight and mode of transportation.

**Table 2-6**  
**Top Rail Shipments Originating in Kansas – 1999 and 2003<sup>18</sup>**

Commodity	Tons Originated (thousands)				
	Tons 1999	Percent of Total	Tons 2003	Percent of Total	Percent Change 1999-2003
Farm Products	15,927	60%	9,849	50%	-38%
Food Products	3,731	14%	2,784	14%	-25%
Chemicals	2,090	8%	2,140	11%	2%
Mixed & Misc. Freight	1,208	5%	1,510	8%	25%
Petroleum	952	4%	-	-	-
Glass & Stone Products	-	-	953	5%	-
All Other	2,458	9%	2,489	13%	1%
Total	26,368	100%	19,726	100%	-25%

**Table 2-7**  
**Top Rail Shipments Terminating in Kansas – 1999 and 2003<sup>19</sup>**

Commodity	Tons Terminating (thousands)				
	Tons 1999	Percent of Total	Tons 2003	Percent of Total	Percent Change 1999-2003
Coal	5,806	34%	14,916	57%	157%
Farm Products	2,002	12%	1,726	7%	-14%
Chemicals	1,841	11%	1,706	7%	-7%
Mixed Freight	1,188	7%	1,605	6%	35%
Glass & Stone Products	1,311	8%	1,268	5%	-3%
All Other Commodities	4,838	28%	4,765	18%	2%
Total	16,987	100%	25,987	100%	53%

Appendix F includes future projections of freight tonnage and value by commodity as derived from the Federal Highway Administration's Freight Analysis Framework.

#### Agricultural Commodities

In terms of grain transport, delivery of crops 'to' grain elevators is increasingly, and now overwhelmingly, by truck – approximately 91 percent of total freight. Although statistics

<sup>18</sup> Association of American Railroads, *Railroads and States*. Available at <http://www.aar.org/abouttheindustry/stateinformation.asp>

<sup>19</sup> Association of American Railroads, *Railroads and States*. Available at <http://www.aar.org/abouttheindustry/stateinformation.asp>

vary considerably each year, the longer term trend is apparent when viewing two groups of four years each separated by an intervening four-year period<sup>20</sup> (see Table 2-8).

**Table 2-8<sup>21</sup>**  
**Annual Percentage of Crop Deliveries To Elevators by Rail**

	<b>1989-1992</b>	<b>1997-2000</b>
Wheat	16-23%	6-13%
Corn	5-20%	1% or less
Sorghum	12-19%	1-3%
Soybeans	10-27%	4-21%

The ‘to’ modal choice varies by type of elevator – small country, large country, and terminal – with 84-96 percent delivered by truck depending on the type of elevator in 2000. The modal choice also varies by type of crop – with 87 percent of wheat, 100 percent of corn, and 79 percent of soybeans delivered by truck in 2000.

Although trucks are carrying a somewhat increased share of grain shipments, the ‘from’ elevator trends are much less dramatic: rail continues to carry a significant share of shipments for most crops in most years (Table 2-9). The ‘from’ modal choice depends on crops (wheat 66 percent by rail and corn 21 percent by rail in 2000), location within Kansas (from Northeast Kansas 67 percent by rail; from West Kansas 45-47 percent by rail; from East Central/Southeast Kansas 7-11 percent by rail), and facility (country houses 29-37 percent by rail; from terminals 98 percent by rail).

**Table 2-9<sup>22</sup>**  
**Annual Percentage of Grain Crops Shipped From Elevators by Rail**

	<b>1989-1992</b>	<b>1997-2000</b>
Wheat	63-69%	47-66%
Corn	20-38%	13-28%
Sorghum	48-65%	41-50%
Soybeans	48-65%	29-46%

Rail continues to maintain its modal share in grain transport ‘from’ elevators because such shipments generally constitute heavy loads with few destinations, i.e., rail cars can be filled to capacity, enabling firms to realize the full potential of the lower transport costs facilitated by rail. In contrast, grain transport ‘to’ elevators may be served by smaller and/or partially filled vehicles (or rail cars) from multiple origins, and from some locations without rail service.

<sup>20</sup> Surveys of the type reported in Table 2.8 and Table 2.9 were not conducted for the intervening years (1993-1996).

<sup>21</sup> Kansas Agricultural Statistics Service “Kansas Grain Transportation,” March 2002.

<sup>22</sup> Kansas Agricultural Statistics Service, “Kansas Grain Transportation,” March 2002.

In terms of specific commodities shipped<sup>23</sup>, Kyle Railroad Company, for example, annually transports approximately 23,000 carloads of commodities, of which 72 percent are grain shipments and 14 percent (or 3,220 carloads) account for other agriculture-related products, such as fertilizer, and soybean and sunflower oils. K&O Railroad annually transports approximately 55,300 carloads of commodities, of which 56 percent are grain shipments (31,175 cars) and 4 percent (or 1,992 carloads) account for other agriculture-related products, such as fertilizers, wheat flour and soybean and sunflower oils. SK&O Railroad annually transports approximately 46,500 carloads of commodities, of which 11 percent are grain shipments (5,288 cars) and 21 percent (or 9,709 carloads) account for other agriculture-related products, such as fertilizers, wheat flour and lumber.

### Other Commodities

In terms of other commodities, motor vehicles and parts are the primary goods shipped from Kansas via rail. Non-agricultural Short Line shipments, as documented in the Program Applications for projects that were approved, (with the respective rail line names in parenthesis) are listed below.

- Fertilizers, Farm Equipment, Processed Food, Utility Poles and Lumber (SKO, K&O, NCA)
- Coal (SKO)
- Rock Products and Ores (SKO, K&O, BH&W)
- Cement (SKO, NCA, K&O)
- Sand and Gravel (K&O, SKO)
- Drywall, Wallboard, Raw Gypsum and Bagged Plaster (K&O, SKO, V&S)
- Lime (SKO)
- Roofing Shingles and Granules (Kyle, SKO)
- Steel and Scrap Iron (SKO, NCA, K&O)
- Plastics (KSW/K&O, K&O, SKO, NCA)
- Chemicals (KSW/K&O, K&O, SKO, NCA)
- Salt (KSW/K&O, K&O)
- LP Gas, Fuel and Other Petroleum Products (SKO, K&O)
- Hazardous Materials (SKO, K&O)
- Railcars For Repair (SKO)
- Paper Products (SKO)

The volume of these non-grain commodities varies greatly. For example<sup>24</sup>, Kyle Railroad transports approximately 3,220 carloads of non-agricultural commodities per year. K&O Railroad transports 1,160 tank cars of hydrochloric acid and 830 cars of residential fuel oil per year. The SK&O Railroad transports over 12,000 carloads of hydraulic cement and 3,000

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<sup>23</sup> Data on specific commodities shipped by railroads from *KDOT Rail Program, Short Line Railroad Interviews*

<sup>24</sup> Data from *KDOT Rail Program, Short Line Railroad Interviews*

cars of sand per year. V & S Railway Inc. averages about 1,500 carloads per year, evenly split between plaster and wallboard shipments. New Century AirCenter Railroad transports approximately 402 carloads of non-agricultural commodities per year, including anhydrous acetic acid (48 carloads), glycerin (48 carloads), lumber (96 carloads), steel (156 carloads), plastic pellets (12 carloads), and processed sugar (42 carloads).

### 2.3.3 Businesses Served by SRSIF Projects

Numerous private enterprises use short line rail service to deliver their raw and support materials (e.g., for agriculture, fertilizers and farm equipment) and transport their crops or finished goods. Establishments directly served by the portions of rail lines that were acquired or improved through Program-funded projects are listed in Table 2-10 and Table 2-11. These tables provide only a partial list of such establishments categorized by agricultural and non-agricultural firms, as derived from the applications filed by the railroads. The cost savings derived from the continued and/or faster and/or more reliable service not only provides direct benefits to these establishments, but also provides indirect beneficial effects to the communities where these firms are located (see Table 2-2) and to the economy of the State as a whole. The interviews conducted with many growers, co-ops, and elevators as part of this study indicate a commitment towards the continued use of short lines to transport their crops to market.

**Table 2-10  
Kansas Agriculture and Agriculture-Related Concerns Served by Projects Funded through the Short Line Loan/Grant Program**

<b>Kansas Agriculture and Agriculture-Related Concerns</b>	<b>Project Number</b>
Elevators in Northwest-North Central Kansas	8033-01, 8033-21
Elevators in Hutchinson area of Kansas	8029-43
Bartlett Milling	8054-35
Bartlett/Independent Mills	8054-38
Beachner Grain	8054-53, 8054-42
Con Agra	8054-33, 8054-35, 8054-52
Coop Grain & Supply	8029-52
Conway Springs Coop	8029-45
Danisco Ingredients	8072-01, 8072-31, 8072-41
Dartmouth	8029-44
DeBruce	8029-43, 8029-45
Farmers Coop	8029-52

<b>Kansas Agriculture and Agriculture-Related Concerns</b>	<b>Project Number</b>
Farmland Industries	8054-38
Fleming Feed	8054-37
Great Bend Coopx2	8029-52, 8029-44
Harvest Brands	8054-33, 8054-35
Lange Coop	8029-45
Mid States Coop	8029-52
Oswego Co-op	8054-35
National Sun Industries	8033-21, 8033-31
Right Coop	8029-52
W&G Fertilizer	8054-42
Wilroads Gardens Elevator	8019-21
Farmland Industries	8054-38

Source: SRSIF Applications

**Table 2-11**  
**Non-Farm Related Firms Served by Short Line Loan/Grant Program Projects**

Non-Farm Related Firms	Project Number	Non-Farm Related Firms	Project Number
Arch River Sand	8054-51	PG&I	8029-43, 8029-45
Ash Grove Cement	8054-42, 8054-51, 8054-52	Pitt Plastics	8054-33, 8054-35
Boge Iron	8029-43	Quality Stone	8054-51, 8054-52
Broadway Lumber	8054-33	R-Con	8029-43
Chanute Manufacturing	8054-42	Roll Source	8054-33
DeElliott Plastics	8072-01, 8072-31, 8072-41	Shade Foods	8072-01, 8072-31, 8072-41
Heartland Cement	8072-01, 8072-31, 8072-41	Slurry/Deta Corp	8054-35
Heckert Construction	8054-35	Spears Manufacturing	8054-35
IMC Salt	8028-01	Star Lumber	8029-43
Lafarge Cement	8054-35	Steel and Pipe Supply	8072-01, 8072-31, 8072-41
Lyons Salt	8028-01	Systech	8054-35
McCabe Minerals	8054-33	Tamko Shingles	8033-01, 8033-11, 8033-21, 8033-31
McGinnis Iron & Metal	8028-01	Tessengerlo Kerley	8054-38
Metalwest	8072-01	UP	8054-51, 8054-52
Mid America Pipe	8054-33	Vinylplex	8054-33, 8054-35
Monarch Cement	8054-42, 8054-51, 8054-52	Vulcan Chemicals	8029-43, 8029-45
Mudco	8029-45	Watco Repair Shop	8054-33, 8054-38, 8054-51, 8054-52
National Gypsum		Weyerhaeuser	8029-43
National Sun Industries		Wichita Iron	8029-43
Oxford Sand	8054-52	Williams Underground	

Source: SRSIF Applications

In terms of specific railroads serving particular businesses<sup>25</sup>, all traffic (i.e., two trains per week) along the V & S Railway currently being improved with Program funds serves National Gypsum Company. Norton County Coop, Decatur Coop, Herndon Coop, McDonald Coop, Frontier Equity, Krien Farm Supply, St. Francis Equity, and Beardsley Coop are all establishments served by the Program-funded project for the Nebraska Kansas Colorado Railway. Funded rail projects along the Kyle Railroad serve the following businesses: Scouler Grain (3,250 annual carloads), Tamko Roofing products (3,182 annual carloads), Hansen Mueller Grain (2,867 carloads), Agmark (1,446 carloads), Midway Coop (1,342 carloads), Coffeyville Resources (1,290 carloads), and Northern Sun/ADM (822 carloads). Portions of the rail lines of the South Kansas & Oklahoma that received Program funds are used to transport commodities for Ash Grove Cement (9,982 carloads), Monarch Cement (2,972 carloads), Coffeyville Resources (6,508 carloads), Ark River Sand (2,833

<sup>25</sup> Data from *Review Of The Kansas Railroad Rehabilitation Program*

carloads), Lafarge Cement (2,137 carloads), and Bartlett Company (2,944 carloads). Funded rail projects along the Kansas and Oklahoma Railroad serve the following businesses: DeBruce Grain (10,352 carloads), Vulcan Materials (9,517 carloads), Cargill (5,380 carloads), Bartlett Grain (2,270 carloads), and North American Salt (1,320 carloads).

### 2.3.4 Factors Affecting Short Line Freight Flow

#### 286,000-Pound Rail Cars

Class I railroads, motivated by lower cost per ton-mile, have begun to gradually transition their fleets towards heavier 286,000-pound rail cars for shipping grain. According to the Babcock and Sanderson report<sup>26</sup>, the UP and BNSF combined fleet of 286,000-pound cars rose from 25 percent in 1999 to 37 percent in 2003. Moreover, the decrease in the 263,000-pound fleet coupled with the increase in 286,000-pound car fleet is an unambiguous indicator of Class I railroads' shift towards heavier cars to ship grain (see Table 2-12). By 2010, UP expects its 286,000-pound fleet to account for 60 percent of its total grain car fleet, and BNSF estimates its share of 286,000 pound hopper cars to account for 50 percent of its total grain fleet. Accordingly, short line rail's inability to accommodate these heavier railcars may eventually affect its grain freight flow volumes.

**Table 2-12**  
**263,000 and 286,000 Pound Car Fleets – UP and BNSF<sup>27</sup>**

Year	263,000 Pound Cars	Percent of Combined Grain Fleet	286,000 Pound Cars	Percent of Combined Grain Fleet	Total Combined Grain Fleet
1999	54,700	75.3%	17,907	24.7%	72,607
2003	38,177	63%	22,437	37%	60,614
CAGR	-8.6%		5.8%		-4.41%

The interviews conducted with rail operators documented some of the short line rail companies that are capable of handling 286,000-pound cars. Specifically<sup>28</sup>, V & S Railway Inc. and Nebraska Kansas Colorado Railway have handled some 286,000-pound cars; Kansas & Oklahoma Railroad has 14 miles (Hoisington) of rail capable of handling heavier cars, and for the Kyle Railroad Company a majority of the Rock Island line (Cokan) is capable of handling 286,000-pound cars.

<sup>26</sup> Babcock and Sanderson, Kansas DOT, *The Impact of Jumbo Covered Hopper Cars on Kansas Shortline Railroads*. 2004

<sup>27</sup> Table excerpted from Babcock and Sanderson, Kansas DOT, *The Impact of Jumbo Covered Hopper Cars on Kansas Shortline Railroads*. 2004, p. 2

<sup>28</sup> Data from *KDOT Rail Program, Short Line Rail Interviews*



**Shuttle Train Grain Elevator at Downs, Kansas**

### Shuttle Loaders

The development of shuttle loaders by Class I railroads at sites along their main line tracks may also have an effect on short line freight flows. In the late 1990s, the Class I railroads began focusing shipments of grain to high capacity grain loading elevators. The railroads provide incentives to the elevators for loading 104 to 110 car unit trains in 15 hours or less. These new grain elevators, built and maintained by the elevator companies, can load 30,000 bushel of wheat per hour or the equivalent of loading a 3,300 bushel rail car in 5 minutes.

Table 2-13 identifies the shuttle loaders located on rail lines in Kansas. These loaders provide an impetus for trucks to transport grain directly to Class I railroads, thereby bypassing short line rail.

Some of these shuttle loading facilities (such as DeBruce Grain Inc. in Wichita) have their own trucking fleets. In fact, in an interview, the Nebraska Kansas Colorado Railway (NKCR) cited shuttle loaders as the primary factor for current and future modal shifts from rail to truck. Interestingly, NKCR was granted concessions by BNSF to build and operate 54 car trains and charge customers 50-car rates. These concessions enabled NKCR to compete with Union Pacific's shuttle loader at Colby. Thus, it appears that Class I rail operators are providing incentives for the continued operation of short lines, in locations where they don't have shuttle loaders.

**Table 2-13**  
**Shuttle Train Elevators in Kansas<sup>29</sup>**

<b>BNSF</b>	<b>Union Pacific</b>
Abilene	Abilene
Concordia	Atchison
Dodge City	Colby
Ensign	Downs
Garden City	Hanover
Hutchinson (2)	Havilland
Salina	Hutchinson (2)
Wellington	New Cambria
Wichita (2)	Ogallah
Wright	Plains
	Salina (2)
	Sharon Springs
	Topeka
	WaKeeney
	Wichita

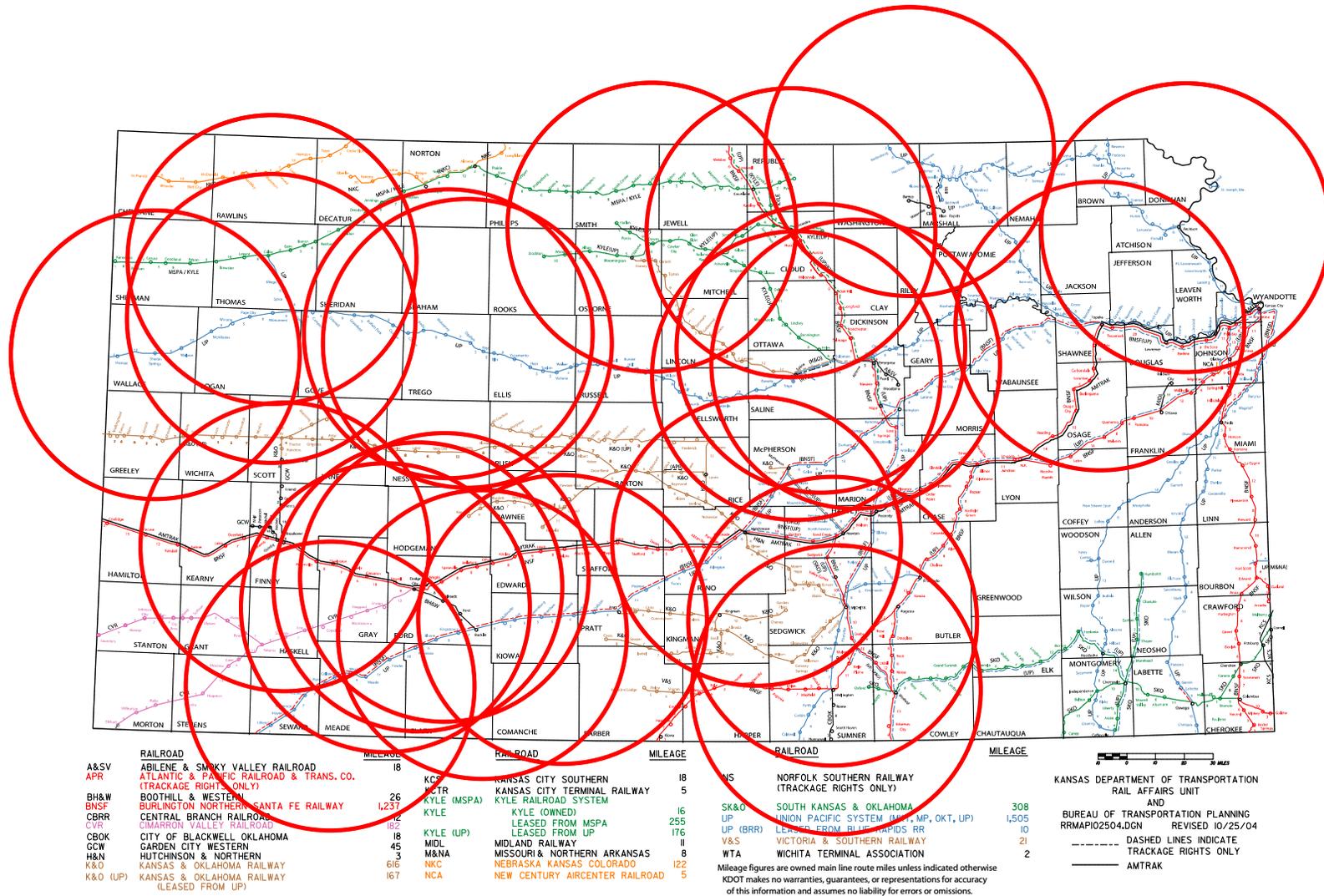
The locations of the shuttle train elevators in Kansas and the generally assumed 60 mile radius for the average distance that farmers will truck their grain to the shuttle train loaders are shown in Figure 2-3.

#### Other Factors Affecting Freight Flow

The Class I railroads are still dependent on smaller railcars, and with the shortage of rail cars they have experienced in some recent years, they will still be using and accommodating the lighter cars from short lines for some time. Several factors contribute to the problem of car shortages. First, stronger than expected economic recovery in some markets has increased freight volumes, which in turn has increased the demand for rail cars. Second, harvest-friendly weather conditions in some markets together with longer harvesting/peak seasons have extended the peak demand period. Third, increased imports from China to the ports of Los Angeles/Long Beach, especially during the back-to-school and holiday seasons (summer/fall months, which overlap the peak harvest season) have increased the demand for rail cars. Since Class I rail operators prefer long haul freight, they tend to give particular attention to their cross-country service from the West Coast. This results in a shortage of rail cars, especially for agricultural shippers. Informal discussions with surface transport officials point to this being a seasonal issue, and one which is dependent on weather conditions. Rail car capacity may persist as a problem for agricultural shippers, especially in seasons when they experience weather conducive to bumper crops.

<sup>29</sup> Data from – <http://www.bnsf.com/markets/agricultural/elevator/shuttle/shuttle.html> and UP's General Director of Grain Logistics

Figure 2-3. Shuttle Train Elevators in Kansas



In terms of commodities shipped, the 286,000 pound cars are mostly used for the shipment of grain. As illustrated in Table 2-11 (and discussed in Section 2.3.2), Kansas short lines transport many other commodities. Thus, despite Class I rails' transition towards 'grain hoppers,' other commodities (as well as grain) will continue to be shipped via short line rail.

Rail intermodalism, the mix of rail and truck transport of goods, is forecast to grow by 5.9 percent over the next five years<sup>30</sup>, and is often considered to be the future of Class I freight rail. Interviews with short line rail operators showed mixed opinions with regard to partnering with trucking firms. While Boothill & Western Railroad, Inc., Kansas & Oklahoma Railroad, South Kansas & Oklahoma, and Nebraska Kansas Colorado Railway do not foresee partnerships with trucking firms, other rail operators, such as V & S Railway, Inc., Kyle Railroad Company, and New Century AirCenter Railroad, are amenable to rail intermodalism. In fact, Kyle Railroad is exploring the possibility of shipping shingles to its yard in Limon Colorado and then cross-docking them to trucks for delivery to cities along the Colorado Front Range. Moreover, such partnerships will allow Kyle access to customers and time sensitive freight that it currently cannot handle.

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<sup>30</sup> American Trucking Association, *US Freight Transportation Forecast to....2016*, 2005

### 3.0 INTERVIEWS

A key component in the quantitative and qualitative determination of whether the Kansas Short Line program has been an effective and efficient use of State funds was an extensive series of interviews with Kansas railroads and key stakeholders. It was important to evaluate the data made available by the Short Line and Class I railroads and KDOT's Rail Affairs Unit and to understand the views of the Program held by those businesses and customers (shippers) that ship or receive products by rail. The PB project team interviewed local officials sensitive to the local economic conditions within Kansas, such as representatives of chambers of commerce and port authorities from around the state.

PB's project team members met face to face, with most of the individuals being interviewed. However due to travel and logistical constraints, there were a few interviews that were conducted by telephone or e-mail. Table 3-1 details the numbers of interviews conducted in each category, as well as the type of interview conducted.

**Table 3-1**  
**Interviews Conducted**

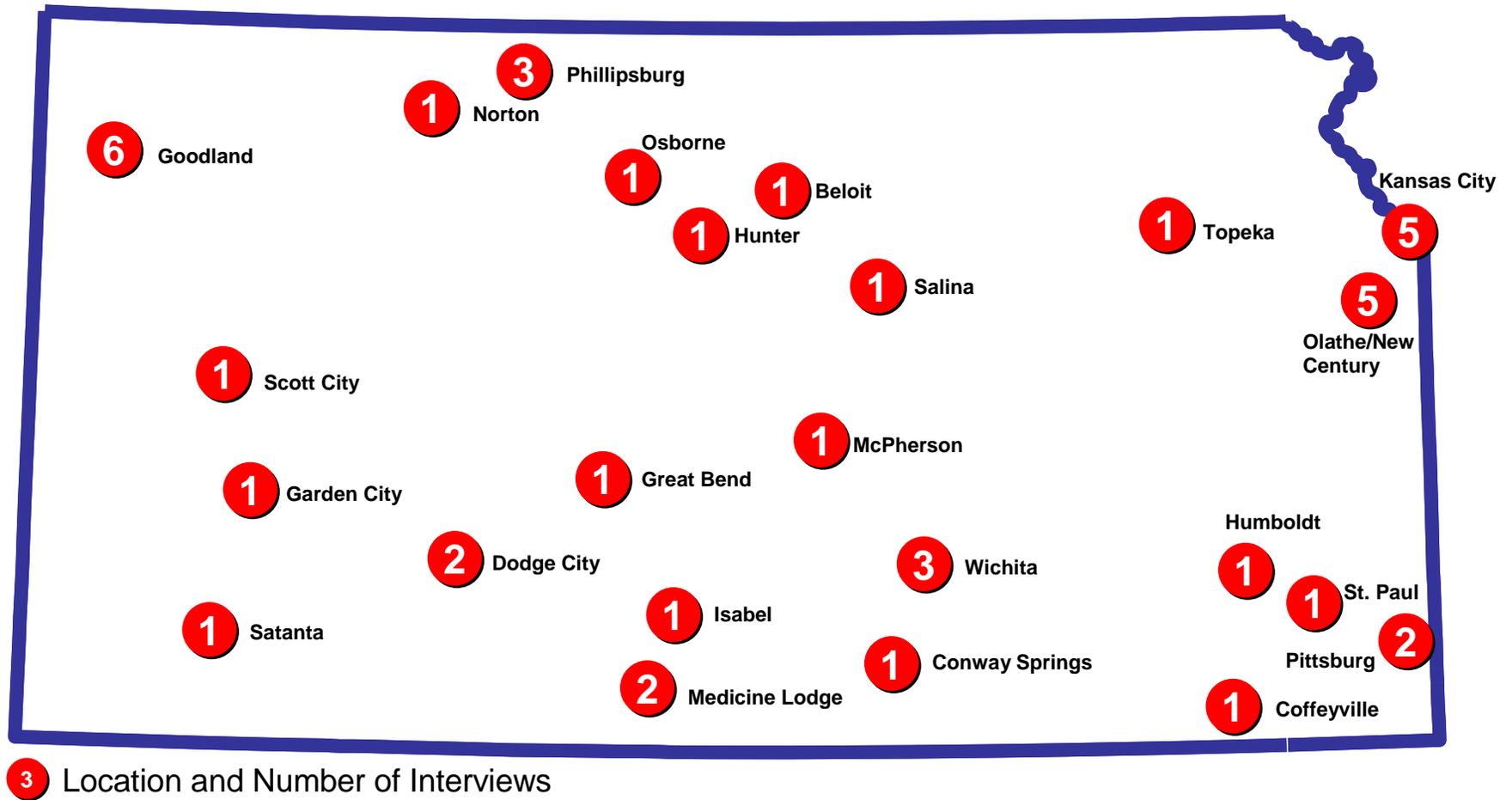
	Face to Face	Telephone	E-mailed
Short Line Railroads	6	2	1
Class I Railroads	2	1	
Shippers	24	3	
"Others" – Local Officials	10		
Sub Total	42	6	1

A list of those individuals interviewed, as well as the entity that they represent is included in Appendix B. Figure 3-1 shows the locations where interviews were conducted in Kansas. The objective of the project team was to achieve as much geographical coverage of the State as possible.

Appendix A includes the four lists of interview questions used for the short line railroads, Class I railroads, shippers and local officials (chambers of commerce, port authorities, economic development agencies). After the initial list of prospective shippers, railroads and other officials was identified, a letter from the KDOT Secretary, Deb Miller, was sent to each individual. The letter described the purpose of the study and encouraged their involvement in the interview process. The PB project team followed up the letter with an introductory telephone call and if the individual was interested in participating, scheduled a face to face interview. A copy of the questionnaire was provided to the interviewee in advance to allow for his/her preparation and to create a more effective interview. Most of the interviews lasted approximately one hour.

The remainder of this chapter contains a summary of the interviews including key, and sometimes unique, findings and perspectives useful in evaluating the past and future of the KDOT Short Line Railroad Loan/Grant Program.

Figure 3-1. Map of Interviews in Kansas



### 3.1 Short Line Railroad Interviews

Nine of the 18 short line railroads in Kansas were identified to be interviewed during the course of this study. Seven were chosen primarily on the basis of their having been previous or current Program participants. These short line railroads include Boothill and Western (BH&W), Kansas and Oklahoma (K&O), Kyle Railroad (KYLE), Nebraska Kansas and Colorado Railway (NKCR), New Century AirCenter Railroad (NCA), South Kansas & Oklahoma (SK&O), and Victoria and Southern Railway (V&S). The Cimarron Valley Railroad (CVR) and the Garden City Western Railroad (GCW) were also selected as two larger short lines that had not been Program participants. In total, the nine railroads interviewed operate 2,110 miles of rail lines, or 95.5 percent of the total short line mileage (2,209 miles) in Kansas.

#### Summary of Key Comments:

- **Several short lines linked their increased business to improvements from Program projects.**
- **There was consensus that projects had reduced derailments.**
- **Short lines projected either steady levels of future business or some amount of growth.**
- **Short line railroads that are part of a larger holding company indicated that the KDOT Program contracts keep the railroad share of project funds in Kansas instead of the larger holding company moving the money elsewhere in the country.**
- **Significant amounts of inadequate infrastructure continue to exist.**
- **There exists some potential for additional short line abandonment in Kansas.**

Following is an overview of the responses to the individual questions in the short line railroad questionnaire (see Appendix A).

1. Are you familiar with the Kansas Short Line Rail Assistance Program? If so, there will be additional questions throughout this interview discussing various specifics about the Program. If not, do you have any questions regarding the program that I could answer at this time before proceeding with the interview?

**Seven of the short lines interviewed were familiar with the Program due to their previous participation. One short line was familiar with the program from the extent of having been an applicant even though they had not yet received any program funding from KDOT. The other short line was not familiar with the program, having never been an applicant.**

2. Have you been a participant in the program at any point since its beginning in 1999? If so, there are more questions regarding the program near the end of this questionnaire.

**Seven of the short lines had been previous participants in the Program.**

3. If not, what are the reasons that your railroad has not participated?
  - a. Is there no need for the program for your short line?
  - b. Is there something about the program which discourages your participation?
  - c. Other – please specify

**One short line had applied for funding but had not been awarded any Program funds. The other railroad has made a corporate decision not to apply for Program funds.**

4. Under what circumstances would you participate in the future?

**The railroad that has applied will continue to do so and the other would need a change in corporate policy to do so.**

5. Please briefly describe the type of services your short line is engaged in. (i.e. shipper to destination, shipper to Class I, both, other)

- **Two short lines are shippers to Class I and Class I to receiver as well as shipper to destination customers.**
- **Two are only shipper to Class I.**
- **The other five are shipper to Class I and Class I to receiver.**

6. What is the frequency of your service?

- **Three of the short lines provide daily service.**
- **Two provide daily service on part of their railroad and three times per week on the remainder of the railroad.**
- **Two provide service three days per week.**
- **Two provide service “as needed”.**

7. What are your major points for originating and terminating traffic?

- **BH&W - currently active only during harvest**
- **CVR – Johnson, Sublette, Elkhart, Hickok, Dodge City, Ensign, Montezuma, and Hugoton**
- **GCW - Garden City, Leavitt, Quinby, Rodkey, Lowe, Ritchal, Peterson, Wolf, Tennis, Gano, Friend, Shallow Water**
- **Kyle – Beloit, Downs, Belleville, Courtland, Phillipsburg, Goodland, Stratton, and Arriba, CO**
- **NKCR – St. Francis and Oberlin**
- **K&O – Salina, Hutchinson, Wichita, Winfield, McPherson, Newton, Abilene**
- **SK&O – Winfield, Pittsburg, Coffeyville, Columbus**
- **NCA – New Century Air Center, Gardner**
- **V&S – Medicine Lodge, Attica**

8. What are your short line's Operating Characteristics by "Segment, or possibly sub-division" (i.e. Colby to Kanorado)
  - a. Gross ton-miles per year
  - b. Trains per Day (or Week)
  - c. Carloads per month/by commodity
  - d. Major customers, and volume of business with your major customers; in tonnage
9. What are the Infrastructure characteristics of your short line by "Segment, or possibly sub-division"
  - a. FRA Track Class
  - b. Jointed or welded rail
  - c. Rail Weight
  - d. Rail Age
  - e. Structure Sufficiency data (capable of handling 286,000 pound cars)
10. Is your business constrained due to:
  - a. Slow speeds due to track/tie condition (please describe)
  - b. Bridges not capable of handling 286,000 pound rail cars (please describe)
  - c. Other (please describe)

**All but two said that their business was constrained. One of those indicated that if 286,000 pound cars were required, then there would be a constraint that would be very expensive to overcome. Specific comments regarding the constraints:**

- **Tie condition required all track to be "excepted".**
- **Slow orders reduce speed to 25 mph in several locations.**
- **Track and ties limit speeds to Class I (10 mph).**
- **Two companies suggested track condition limits speeds at times to 10 mph and structures can't handle 286,000 pound cars.**
- **All track is at 10 mph, and unable to carry 286,000 pound cars.**
- **Light rail and poor roadbed limit speeds to 5 mph.**

11. Does your company make projections as to future growth in your business?
  - a. If so, are these by tonnage or # of carloads
  - b. If so, what is the basis for these projections?
  - c. What are your most recent projections?

**All but three of the short lines make carload projections. Specific comments regarding their projections of future growth:**

- 5 percent growth is anticipated per year.
- 3 to 4 percent growth is anticipated per year.
- Weather affects outbound volumes from year to year; cannot predict.
- Business will increase if ethanol plant locates on line.
- If access to another railroad Class I is gained, business is expected to increase.
- Growth is based on current customer growth and new customer projections.

12. Are there shippers in your area that could use your railroad but do not? How much would your business increase if those potential customers used your railroad?

**Six short lines indicated there were potential customers using truck that could use rail. Specific comments:**

- Four railroads didn't feel they could quantify the additional business potential.
- One railroad estimated 30 – 35 percent additional business.
- The other estimated an additional 20 percent.

13. What factors do you think may enter into local shipper's decisions to use truck (for those who use truck) as opposed to your short line rail service? Does the shipper himself or a third party make that decision?

**Factors mentioned most consistently were freight rates and distance to the destination. Only the K&O and SK&O mentioned any instances when a third party was involved in making the decision of which mode (rail or truck) to use. Other specific comments were:**

- Dealing with railroads can be intimidating to shippers (especially small ones) due to the requirements of securing equipment, transit times, demurrage, surcharges, and rate quotes; dealing with a local area trucker is often much easier.
- Demand for a timely move does not match availability of rail cars.
- The distance to shuttle loader locations is a factor.

14. The Class I's and trucking firms are creating partnerships for certain traffic moves. Do you have, or anticipate, similar partnerships with trucking companies and/or Class I railroads? If you do, what are these partnerships and what are the anticipated results? If you do not; please describe why not.

**None of the short lines interviewed indicated they currently have partnerships with trucking companies or Class I railroads. One company mentioned one of its sister railroads within the larger holding company did have such partnerships in the US which can expand market range in certain markets. Other specific comments:**

- **We have successful relationships/partnerships with their Class I partners.**
  - **We have considered creating a trucking partnership for time sensitive freight to provide competitive transit times instead of depending on Class I partners.**
  - **We don't currently partner with trucks but we are always looking for new business.**
15. Are you aware of any utilization of trucks by any of your customers instead of using your rail service? If so how much of your potential business with that customer is going by truck?

**All short lines indicated there was business moving by truck from their customers. Two indicated they wouldn't be able to estimate how much of a percentage. Others suggested the following percentages of potential business moving by truck:**

- **20 – 25 percent**
  - **20 – 35 percent**
  - **30 percent**
  - **40 percent**
16. What are the strengths of your short line?

**All short lines mentioned customer service as one of their strengths. Other specific strengths mentioned were:**

- **Access to two Class I railroads**
  - **Local presence**
  - **Being a participant in their customers' business**
  - **Strong management team**
  - **Company employees (mentioned in two interviews)**
  - **Support from KDOT**
  - **Commitment to safety**
  - **Flexibility of service**
17. What are your short line's weaknesses? How are you attempting to address these weaknesses?

**All short lines mentioned the unmet needs of their infrastructure as one of their major weaknesses. Other things mentioned were:**

- **Equipment availability**
- **Lack of capital**
- **Inability to get timely rates, equipment and service from Class I partners**
- **Lack of business**

- **Difficulty in overcoming deferred maintenance of the Class I railroad that owned line previously**
- **Lack of capability to handle 286,000 pound rail cars**
- **Being subject to changes in strategies of Class I railroads**

**In discussing what was being done to address these weaknesses, the following were mentioned:**

- **Continuously trying to get additional capital for infrastructure improvements from company, state and federal sources**
- **Ongoing conversations with Class I railroad partners**
- **Working with economic development groups to attract new rail-dependent business**

18. Are there scenarios in which you could foresee the abandonment of your railroad, or specific line segments?

**Four of the short lines interviewed there saw no scenario where they would be abandoning their railroad. Other comments included:**

- **They are contractually obligated to provide track and service to any customers using rail.**
- **There is one section of branch line where there is potential for abandonment.**
- **Probably not. However, if costs exceed revenues to the extent a line isn't profitable or won't be in the foreseeable future, then abandonment may occur. Small changes in economic conditions could cause this on certain lines.**
- **If key shippers close or if railroad can't provide service economically, abandonment could occur.**

19. Are there scenarios in which you could foresee your short line, or specific line segments, being acquired by another short line company?

**Five short lines indicated there was no scenario they envisioned that would have them acquired by another short line. Other comments were:**

- **They have made contacts about selling but there is no interest in acquiring them.**
- **There is a possibility on one of their branch lines.**
- **They have considered the contracting the operation of their railroad to another railroad.**

20. What would your customers do if your short line railroad, or specific line segments, were abandoned?

- a. Switch all shipments to for hire-trucking firms
- b. Purchase their own truck fleet
- c. Move their business to another rail served location if possible.

- d. Go out of business
- e. Other?

**Five short lines indicated some combination of for-hire trucking and either close the business or move to other rail served locations. Other comments:**

- **Two railroads indicated their customers would shift to for-hire trucking only.**
- **One railroad stated their customers would likely purchase their own trucking fleet.**
- **One railroad thought that the business would move to another rail served location.**

21. What capital improvements to your railroad would be beneficial to continued rail operations? (please elaborate; in what ways would those improvements be beneficial?)

**The majority of the responses identified ballast, tie, and surfacing improvements. Four of the nine mentioned upgrading structures to handle heavier equipment (two specifically mentioned 286,000 pound cars). Other comments were:**

- **Replace rail weighing less than 100 pounds. (100 pounds for a 3-foot length)**
- **Vegetation control**
- **Rail bed upgrades**
- **Newer, more powerful locomotive**

- a. How are you currently financing infrastructure improvements to your railroad? Please identify by type (i.e. normalized maintenance, KDOT program, RRIF, others)

**All mentioned normal maintenance. In addition, five mentioned that they are currently paying loans to KDOT from the Program or Kansas' LRFA funds. Other comments:**

- **Private financing**
- **Capital expenditure budget**
- **Operating cash**

22. What other changes or improvements in your short line's service would you like to see that would benefit your customers? (please elaborate; in what ways would those improvements be beneficial to your customers?)

**There was a broad range of answers to this question. Specific comments were:**

- **Slow order removal**
- **More car storage**
- **Additional sidings to facilitate loading**
- **More car availability; access to a ready reserve rail car fleet**

- **Ties and surfacing to provide a safety factor to keep operations at current service levels**
  - **Ability to have Class I railroads allow short line to put together combination trains from various shippers to single destination for unit train type rate savings for shippers**
23. How would these improvements encourage your customers to make more extensive use of your short line rail services?
- **Ability to remove slow orders would improve turnaround time.**
  - **More car storage would allow certain customers to get higher volume related discounts.**
  - **More sidings mean less switching which improves efficiency.**
  - **Better car availability creates better consistency, dependability, and timely service.**
  - **The safety factor being maintained might not attract new business, but it should allow existing business to be retained.**
  - **'Combination type' unit trains from smaller elevators would reduce existing levels of truck traffic.**
24. How does your railroad communicate with your shippers? (phone, e-mail, face-to-face contacts) How often? (daily, weekly, etc.)

**There was a range of answers to this question. Specific responses:**

- **All of the above, and depending on shipping conditions almost daily**
  - **Daily phone call and emails, and headquarters marketing staff visit customers quarterly**
  - **Marketing staff meeting with customers face-to-face every two weeks**
  - **E-mails and phone weekly by marketing department**
  - **Weekly face to face meetings by local general manager**
25. How does your short line market its services to new customers?

**There was a broad range of responses to this question.**

- **Either by the local General Manager or leads from headquarters**
- **Joint marketing effort with the Class I railroads**
- **Through local economic development groups**
- **During sites visits conducted by marketing staff**
- **Port Authority Board members serving as a large marketing force for the railroad**

26. Do you have direct connections to other short lines or Class I railroads?
- a. If so, which ones?
  - b. How do these inter-connections support or hinder your operations? Please explain how they could be improved?
  - c. How do these inter-connections benefit your customers?

**There was a broad range of responses to this question. The specific responses are as follows:**

- **Interchange connections exist with all three Class I railroads. Those interchanges are a great support to operations. The interchanges enable use of the Class I rail yards and equipment. There are ongoing conversations with the Class Is to find ways to improve interchange operations. The interchanging with the Class Is is a major benefit to customers by providing access to new markets and equipment not otherwise available.**
  - **Interchange is with one Class I. There have been no issues other than occasional car availability. Since all traffic goes off-line, this connection is absolutely critical to shippers.**
  - **Interchange occurs with one Class I and the service by that railroad has improved over the past 12 months. A desired improvement in the interchange would be to have the Class I “block” cars by customer, rather than spending hours sorting cars.**
  - **Interchange is with one Class I and there are no issues.**
  - **Interchange is with one Class I. A positive element of this relationship is that the Class I railroad provides equipment to the shipper for loading. The downside is that the shipper is dependent on the Class I for cars and also is captive to the operating schedule of the Class I.**
  - **There is potential to interchange with two Class I railroads, even though there is only access to one at this time.**
  - **The short line interchanges with one Class I and has trackage rights over another Kansas short line. These connections are critical because the shippers’ products won’t get to market without them.**
  - **There are interchanges with two short lines and two Class I railroads. The business with the Class I railroads is limited due to the Class I “paper barriers”. (A “paper barrier” is a restriction, written into a line sale or lease between a Class I and short line railroad, of the short line’s ability to interchange with certain railroads.)**
27. How have projects you have completed using the KDOT Short Line Loan/Grant program affected your operations? (i.e., increased speed, increased service frequency, etc.)

**Only six of the nine short lines interviewed have completed projects using the Program. Highlights of their comments:**

- **Two short lines indicated current levels of service have improved due to increased speed and other projects ensure existing service levels will be maintained into the future.**

- **Improved track speed which allows improved, timely service. This has increased the customer base as well as created a safer railroad.**
  - **Two railroads suggested Project funds made the line serviceable.**
  - **Track improvements and added storage have allowed short line to continue to provide service.**
28. How have projects you have completed using the KDOT Short Line Loan/Grant program affected your service to customers?
- **Two railroads noted that increased operating speeds and ensured continuation of existing speeds both benefit customers.**
  - **Two railroads are providing more timely and dependable service.**
  - **Program allowed rail service to reach a major customer previously not served.**
  - **Operations are now continued at levels customers have come to expect.**
29. Has your railroad experienced increased business since, and directly related to, your KDOT Short Line Loan/Grant project(s)?

**The range of answers from the Project fund recipients varied considerably in response to this question.**

- **There has been a 10 percent increase in business per year in recent years due in part to Program funds**
  - **There has been a 60 percent increase in business on lines acquired using program funds. 50 percent of this increase directly linked to project improvements funded by Program.**
  - **Recent increased business may not be directly linked to Project funding, but the funds have provided safer, more dependable service.**
  - **The railroad has not seen an increase due to the Program, but business levels have been maintained due to the Program.**
  - **Yes, but there is no estimate of how much new business has occurred.**
30. Have derailments decreased since the completion of your KDOT Short Line Loan/Grant funded project(s)? If so, what has been the number (or percentage) of decreased derailments?

**Answers to this question varied in terms of the amount of decrease in derailments. There did appear to be consensus that the Program does reduce derailments.**

- **Program funds are spent on mainlines and mainline derailments have decreased in both number and severity. However most derailments occur on house and siding tracks.**
- **There have been no derailments since program funds were utilized**
- **Yes, there have been approximately 50 percent less derailments since Program funds have been utilized.**

- **Derailment have been reduced nearly 100 percent since Program projects completed. Derailments are now due only to human error.**
  - **Derailments were reduced by 25 percent.**
31. Are there future projects for which your short line would apply to a future KDOT Short Line Program? If so, please describe some of those projects and why they would be important. Are there other funding assistance programs that you might also be eligible for, or might apply for, in the future?

**The short lines indicated that if the program were continued, there would be applications for future projects to address unmet needs. Examples are as follows:**

- **Reduce slow orders with a project to improve tie condition thereby providing more dependable service.**
  - **Tie, ballast and surfacing projects on other parts of the short line to improve safety and service.**
  - **Tie and track improvements and rehabilitating track which would access another short line and Class I railroad resulting in shippers having additional options.**
  - **No project anticipated in the near term due to current budget constraints but could in the future if new business potential dictates.**
  - **Infrastructure maintenance is the top priority over next 10 years. There is a \$36 million deficit in this railroads' maintenance and capital expenditure budgets over the next 10 years.**
  - **Yes, there will be a project application if new business locates on the line.**
  - **Yes, additional 50 to 100 mile segments of the railroad will need to be upgraded. The new federal tax credit allowances program is also expected to be accessed.**
  - **Tie and surfacing upgrades to maintain existing service levels and possibly upgrading rail weight and structures to handle 286,000 pound loads.**
32. What improvements to the program would you recommend to KDOT and the Kansas State Legislature?

**There were numerous, differing comments in response to this question.**

- **Program needs more than \$3 million per year in the future.**
- **Sidings and auxiliary track should be eligible to induce new businesses onto railroads.**
- **Eligible projects should include car acquisition.**
- **Re-instate the "grant" element of the Program.**
- **Establish a guideline for each railroad in terms of the amount of funding that may be accessed based on track miles and traffic density.**
- **Expand eligibility to include rail equipment and technology expansions.**
- **Reimbursement from the State for Program expenditures paid to contractors needs to be expedited.**

- **Grants should be included; there are numerous banks to access loans.**
  - **KDOT should fund required up-front costs such as engineering.**
33. What are the positive aspects of how the state rail program is currently being administered by KDOT?

**Comments from the railroads were generally very positive in terms of the program administration by KDOT staff:**

- **Individuals administering the program are true professionals working for the betterment of short line railroads. Their guidance and help in working through the red tape is a tremendous help.**
  - **A reasonable process; clumsy contracting has improved over time. A very good public/private partnership.**
  - **The Program and the people that administer it are very easy to work with and are always available to answer questions and take care of your needs.**
  - **The program keeps short lines open**
  - **The positives are a relatively small amount of paperwork, knowledge of rail and rail operations by KDOT staff, and quick turn around time of applications.**
  - **Nothing specifically good or bad.**
  - **Pleasant to work with many individuals at KDOT.**
  - **Easy to work with KDOT staff; process seems to be done fairly.**
34. What changes, if any, in the administration of the state rail program would you recommend?
- **Re-instate the grant portion of the Program**
  - **Streamline response time on applications. Don't hold up process waiting for late applications.**
  - **Railroads need to be more flexible on scheduling material inspections. KDOT staff needs sufficient notice to travel long distances for material inspections.**
  - **No changes recommended (this response from five interviews).**

### 3.2 Short Line Shipper Interviews

Twenty eight interviews were conducted with shippers and receivers located on short line railroads operating in Kansas. While grains make up a large amount of Kansas' short line railroad shipments, there are critical volumes of many other commodities that are moved by short line railroads. For the purposes of this study, the interviews with grain related shippers (14) are being separated from the shippers of the other commodities (13). This will allow a better comparison and summarization of some of the perspectives of the short line shippers.

### 3.2.1 Grain Shippers (14)

#### Summary of Key Comments:

- **Four companies project business to continue at existing levels; ten companies project increased business.**
- **Upgrading sidings and lengthening sidings should be eligible Program projects.**
- **250,000 additional truck trips per year (125,000 loaded) would be on Kansas highways if these fourteen grain shippers lost rail service.**
- **Small elevators are losing some business to shuttle loaders.**
- **Excellent customer service is the strength of the short line railroads.**
- **Weaknesses of the short lines are infrastructure condition and grain car availability.**
- **Majority of interviewees suggest additional short line infrastructure improvements are necessary.**

Following is an overview of the responses by grain shippers (14) to the individual questions in the Short Line Shipper Questionnaire (see Appendix A). Note that any proprietary information has been omitted in accordance with the interview guidelines.

1. Were you familiar with the KDOT Short Line Loan/Grant Program prior to this interview? Are you aware of any improvements made by your short line Railroad as a result of funding from the KDOT Short Line Loan/Grant Program? Please specify. Do you know if such improvements were completed with funding from this Program?
  - **Very familiar (three responses) These included having lobbied for the legislation that created the Program; the railroad owned by the Co-op had received an eight mile project from Program funds; and the parent company has seven elevators on Kansas short lines that have used Program funds.**
  - **Somewhat familiar (six responses) These were predominantly individuals that had heard of the Program but didn't know if their short line had utilized funds from the Program; or were aware that the short line had participated in the Program, but didn't know any specifics of improvements made.**
  - **Not familiar (five responses) These individuals weren't aware of the program until they received letter from the Secretary of Transportation and received the call from the PB project team setting up the interview.**
2. Please briefly describe your type of business. What does your company produce? What raw materials and other products do you require? Where are your major markets, and (if applicable) where do you obtain raw materials and other products you use in your business.

#### Types of Business

- **County grain elevators (2)**
- **Large grain elevator companies (3)**
- **Grain Co-op and agricultural supply companies (9)**

**Products shipped by rail**

- **Wheat, millet, corn, soybeans, sunflowers predominantly outbound.**
- **Fertilizers, petroleum products, pesticides predominantly inbound.**

**Markets**

- **Outbound to Gulf Coast, Port of Catoosa, Kansas City and Wichita flour mills, other domestic mills, St. Louis, Ft. Worth, Arkansas poultry feeders.**
  - **Inbound fertilizer (tank cars) from Coffeyville and (covered hoppers) Rock Springs, Wyoming.**
3. Can you provide us with information on the tonnage or number of railcars and types of goods you transport in and out via your short line RR? Specifically, can you provide us with:
- a. Inbound raw materials and outbound final product rail tons by type of commodity.
  - b. The origins and destinations of freight (e.g., to local or regional grain elevator, etc.)
  - c. Frequency of service provided by your short line RR
  - d. Frequency of your inbound and outbound shipments.
  - e. Number of cars per week (month), inbound and outbound.
  - f. Type of rail cars used; i.e. flat cars, tank cars, covered hoppers, etc.

**Products shipped by rail**

- **Wheat, millet, corn, soybeans, sunflowers predominantly outbound**
  - **Fertilizers, petroleum products, pesticides predominantly inbound**
  - **County grain elevators (2)**
    - **Short line service ranged from 3 times per week to ‘as necessary’.**
    - **Volumes range from 127 cars per year to 225 cars per year.**
  - **Large grain elevator companies (3)**
    - **Service is two to three days per week or ‘as necessary’ during harvest.**
    - **Volumes range from 2,600 cars to 3, 500 cars per year.**
  - **Grain Co-op and agricultural supply companies (9)**
    - **Services ranges from once every two weeks to twice a week.**
    - **Volumes range fro 240 cars per year to 1,100 cars per year.**
4. Assuming that your short line railroad continued to provide you with the same level of service as now, would you anticipate that volumes and types of shipments you make via your short line RR will change in the future (for example, would you anticipate increased or decreased volume, change in the mix of commodities, change in destinations)? Over what time frame would you anticipate these changes?

- **County grain elevator (2)**
    - **One company expected general growth in business; the other projected major increases in corn business if Goodland's new businesses come on line as expected.**
  - **Large grain elevator company (3)**
    - **All projected increases averaging 10 percent per year over the next five years.**
  - **Grain Co-op and agricultural supply (9)**
    - **Two companies projected small increases depending on economic circumstances.**
    - **Three companies projected increases ranging from 10 percent over three years to 30 percent over five years.**
    - **Four companies indicated no increase.**
5. In addition to your use of the short line railroad, do you also use trucks to ship some of your raw materials and final products? What share of your product is shipped via truck vs. rail?
- **County grain elevators (2)**
    - **50 percent and 60 percent by truck for these two county grain elevators.**
  - **Large grain elevator companies (3)**
    - **10 percent, 2 percent and 1 percent by truck for these three large elevator companies.**
  - **Grain Co-op and agricultural supply companies (9)**
    - **Five companies indicated greater than 90 percent of wheat is shipped by rail; 10 percent by truck.**
    - **Three companies stated that 70 to 85 percent of wheat is shipped by rail, with the remainder by truck.**
    - **One company indicated an even split between rail and truck for wheat.**
    - **All but one indicated a very high percentage of milo shipped by truck.**
6. What factors enter into your decision to use short line railroad vs. truck? Do you, as the shipper, or a third party (for example, a logistics firm or freight forwarder) select the mode of transport?

**In every instance except one, the elevator makes the decision as to which mode to use although one company directs that milo move by truck from one particular facility to another. The various factors mentioned that enter into the decision and the number of times mentioned are as follows:**

- **Market place (3)**
- **Freight rates (4)**
- **Destination (2)**

- **Two elevators indicated they use rail even when truck rates are 1 cent to 5 cents per bushel less than rail freight rates.**
  - **Volume (2)**
  - **Wheat is graded by grain inspectors on rail; not truck. (1)**
  - **Availability of mode (1)**
  - **Dependability (1)**
  - **Handling costs (2)**
7. What are the strengths and weaknesses of your short line railroad? How does this help/hinder your ability to ship in a timely manner?

**The main strengths noted were customer service, good rail service, and excellent staff. The weaknesses most often noted were poor infrastructure, car supply/car turn around, and the short line being subject to rates and service provided by Class I railroads.**

**Strengths:**

- **Timely service (2)**
- **Customer service (6)**
- **Short line owns its own cars (2)**
- **Reliability (1)**
- **Creative, innovative (1)**
- **Staff is excellent (3)**
- **Good rail service (4)**
- **Small, flexible and efficient (2)**
- **Outstanding communications (2)**
- **Ability to access Class I cars (1)**

**Weaknesses:**

- **Limited markets (2)**
- **Car Supply (5)**
- **Captive to Class I railroads (3)**
- **Car turn around (3)**
- **Poor infrastructure (6)**
- **Cars sit too long after being loaded (1)**
- **Locomotive shortage (2)**
- **Not capable of 286,000 pound loads (2)**

- **Technology regarding car tracking and other paperwork (1)**
- **Shortage of employees (1)**



**Beachner Grain Elevator in St. Paul, Kansas**

8. Would you like to see more short line rail service? What would be the best frequency of short line service for your company? Is that more than you now receive? How would your business be affected if you had more frequent rail service?

**Seven (50 percent) of the respondents indicated that they could not benefit from additional rail service. Other responses were:**

- **Two companies indicated that with more service they could possibly move more volume.**
  - **Two responses requested additional service during the peak shipping seasons.**
  - **Three companies linked more service to better car availability.**
  - **One company suggested that more service and better rates might increase volume.**
9. What would your business do if your short line railroad were abandoned?
- a. Switch all shipments to for hire-trucking firms. **(12)**
  - b. Purchase your own truck fleet. **(1)**
  - c. Move your business to another location if you could. **(3)**
  - d. Go out of business. **(2)**

e. Other (please specify)

- We would lose some business to shuttles. (1)
- We would buy some more trucks. We already own a few. (1)

**There were several responses to this question where a combination of answers were given such as a combination of for-hire trucking and go out of business (by co-ops owning several elevators).**

10. If your short line railroad were closed, how many truckloads would you need to ship your products? How many truckloads would be needed to ship in raw materials and other products?

**Less than 2,000 truckloads (3)**

**Between 2,000 and 5,000 truckloads (4)**

**Between 5,000 and 20,000 truckloads (4)**

**Greater than 20,000 truckloads (3)**

**For the 14 elevators that were interviewed, 125,000 truckloads (or 250,000 total truck trips) would be needed to replace the rail shipments if the shipper's short line were closed.**

11. What other factors can you identify (either related to the railroad or other factors) that might cause you to switch your business from rail to trucking?

**The issues of freight rates/costs (nine responses) and service availability/car shortages (five responses) were the factors mentioned.**

12. Were the improvements made using Short Line Loan/Grant Program funds beneficial to the service provided by your short line railroad service? Please briefly explain why or why not.

**The majority (eight responses) specifically mentioned improved speeds had improved car turn around times. Other comments included:**

- One company mentioned improved dependability of service, but unsure of increased speeds.
- One company suggested the project had indirectly improved the State's highway.
- The remainder weren't aware of specific project improvements that had benefited their service.

13. What future physical improvements to your railroad would be beneficial to your business? What other changes or improvements in your short line's service would you like to see, and that would benefit your business?

**The three largest grain elevator companies all encouraged improvements to allow capability of handling 286,000 pound loads. There were seven responses indicating needed track, tie and ballast improvements to improve overall speed. Other responses were:**

- **No improvements proposed**
- **Construct unit train loading capability to get unit train rates (25 cars plus)**
- **Improve sidings and industry spurs**
- **Better locomotive power**
- **Access to west coast markets**

14. What future improvements to your short line RR might encourage you to make more extensive use of their service?

**Nearly all respondents suggested this answer would be the same as the answer to question #13. One response suggested that improved car availability would encourage more shipments than current levels.**

15. Do you have your own direct side track or do you use a common team track (a siding used by more than one shipper)?

**There were no instances where team tracks were identified. The majority of companies (eight) lease the sidings from the railroad. Four companies own their own sidings and one has properties where some are owned by the company and other sidings are leased from the railroad.**

16. If your business is a grain elevator, are you able to qualify for unit train rates? Also, are farm producers switching to larger elevators that can accommodate unit trains?

**Half of the shippers indicated they do get unit rates and the other half indicated such rates were not currently available. There was indication that some business is going to the shuttle loaders, but it does not seem to be a critical amount.**

17. Does your short line consolidate grain cars into unit trains? If not, would you utilize such a service if it were available?

**Three indicated their short line does consolidate trains. The others said unit train rates were no longer offered by the Class I but would use such if made available again.**

18. What are the positive aspects of how the state rail program is currently being administered by KDOT?

**There was a variety of responses to this question.**

- **They believe the Program helps short line railroads stay in business. (4)**
  - **If the Program funding helped put the K&O on the former Central Kansas Railway (CKR), then the Program was a huge success. One noted that they shipped 1,000 cars per year with CKR and now ship 4,000 per year with K&O. (2)**
  - **The Program should be continued with more funding. (2)**
  - **The Program helps economic development groups attract new business to the area.**
  - **Five respondents had no comment.**
19. What changes, if any, in the administration of the state rail program would you recommend?

**A wide range of responses were given to this question:**

- **Add sidings to the list of eligible projects to create partnerships with the railroads and shippers as well. (4)**
- **Spend money only on viable projects.**
- **Focus the program on upgrading infrastructure to handle 286,000 pound cars.**
- **State is managing the program very well.**
- **Program should be funded at a higher level.**

### 3.2.2 Non-Grain Shippers (13)

**Summary of Key Comments:**

- **Eight companies project business growth (some very significant); five companies project stable levels of future business.**
- **There should be more awareness of the Short Line Loan/Grant Program. Communicate through trade/industry associations.**
- **Trucks are often not an option for transporting many of the commodities shipped by these businesses. For those commodities that could use trucks, loss of rail service to these 13 shippers would result in 124,000 additional truckloads on Kansas highways.**
- **Four companies identified needed track, tie, and ballast improvements to increase operating speed and improve car turn around time. Other improvements suggested were back-up locomotives, expanding covered hopper car fleet, and upgrading track to be capable of carrying 286,000 pound loads.**

Following is an overview of the responses by shippers of non-grain commodities to the individual questions in the Short Line Shipper Questionnaire (see Appendix A). The primary

commodities shipped by these thirteen shippers are: sunflower oil, refined petroleum products, asphalt shingles, cement, industrial chemicals, food ingredients, plastic packaging, chocolate (chips and liquid), sand, liquid fertilizer, and scrap metal. Note that any proprietary information has been omitted in accordance with the interview guidelines.

1. Were you familiar with the KDOT Short Line Loan/Grant Program prior to this interview? Are you aware of any improvements made by your short line Railroad as a result of funding from the KDOT Short Line Loan/Grant Program? Please specify. Do you know if such improvements were completed with funding from this Program?
  - **Somewhat familiar - These two respondents were individuals that had heard of the Program but didn't know if their short line had utilized funds from the Program; or were aware that the short line had participated in the Program, but didn't know any specifics of improvements made.**
  - **Not familiar - These ten respondents weren't aware of the program until they received the letter from the Secretary of Transportation and the call from the PB project team setting up the interview.**
  - **One respondent heard about the Program from attending the Phillipsburg Open House meeting.**
2. Please briefly describe your type of business. What does your company produce? What raw materials and other products do you require? Where are your major markets, and (if applicable) where do you obtain raw materials and other products you use in your business.

**Types of Business:**

- **Cement manufacturers (2)**
- **Food products related (3)**
- **Shingles**
- **Petroleum refining**
- **Fertilizers (2)**
- **Chemicals**
- **Scrap metal**
- **Plastic materials**
- **Sand**

**Products shipped by rail:**

- **Outbound – sunflower oil, portland cement, liquid fertilizer, shingles, industrial chemicals, dry fertilizer, scrap iron material, sand, acetic acid**
- **Inbound – sunflowers, gypsum, coal cinders, colored granules for shingles, asphalt, dry fertilizer, granular sugar, poly resin, soybean oil, glycerin, acetic anhydride**

**Markets:**

- **Outbound to Gulf, Canada, West Coast, Mexico, Louisiana, Illinois, Texas, Iowa, Colorado, Nebraska, Utah, western Kansas, Arkansas, Kansas City, Missouri**
  - **Inbound from Oklahoma, Wisconsin, Texas, Ohio, Missouri, Nebraska**
3. Can you provide us with information on the tonnage or number of railcars and types of goods you transport in and out via your short line RR? Specifically, can you provide us with:
- a. Inbound raw materials and outbound final product rail tons by type of commodity.
  - b. The origins and destinations of freight (e.g., to local or regional grain elevator, etc.)
  - c. Frequency of service provided by your short line RR
  - d. Frequency of your inbound and outbound shipments.
  - e. Number of cars per week (month), inbound and outbound.
  - f. Type of rail cars used; i.e. flat cars, tank cars, covered hoppers, etc.

**Products shipped by rail:**

- **Outbound – sunflower oil, portland cement, liquid fertilizer, shingles, industrial chemicals, dry fertilizer, scrap iron material, sand, acetic acid**
- **Inbound – sunflowers, gypsum, coal cinders, colored granules for shingles, asphalt, dry fertilizer, granular sugar, poly resin, soybean oil, glycerin, acetic anhydride**

**Service frequency (per week):**

- **7 days**
- **6 days**
- **5 days (5)**
- **3 times**
- **2 times (3)**
- **once**
- **as needed**

**Rail Volumes (per week):**

- **1 to 5 cars (4)**
- **6 to 10 cars (2)**
- **11 to 20 cars**
- **21 to 60 cars (3)**
- **61 to 120 cars**
- **121 to 200 cars (2)**

**Types of rail cars used:**

- **Tank cars: all liquid commodities**
  - **Covered hoppers: gypsum, dry fertilizers, cement, sand, sunflower byproducts**
  - **Box cars: shingles**
  - **Gondola cars: scrap iron**
4. Assuming that your short line railroad continued to provide you with the same level of service as now, would you anticipate that volumes and types of shipments you make via your short line RR will change in the future (for example, would you anticipate increased or decreased volume, change in the mix of commodities, change in destinations)? Over what time frame would you anticipate these changes?

**There was a mixed response to this question with some companies projecting increases (some very large) and others expecting business to continue at the same levels. Overall, these non-grain commodities could produce significant increase in short line rail traffic.**

- **Three companies (two with large rail volumes and one a relatively small rail business) projected their business doubling or more in the next two to three years.**
  - **Five companies projected per year growth rates of 5 percent, 20 percent, 25 percent, 30 percent and 35 percent.**
  - **Five companies indicated they expect rail shipping to remain the same.**
5. In addition to your use of the short line railroad, do you also use trucks to ship some of your raw materials and final products? What share of your product is shipped via truck vs. rail?

**The nature of the products shipped and destinations determine whether truck or rail is used. There is no price or rate differential with these commodities as there is in the grain business. Most of these businesses ship a large amount of either their inbound or outbound products by truck as shown below:**

- **0 – 25 percent (3)**
- **26 – 50 percent (4)**
- **51 – 75 percent (2)**
- **76 – 95 percent (4)**



**Tank cars at Danisco Ingredients USA Inc. - New Century Air Center Industrial Park**

6. What factors enter into your decision to use short line railroad vs. truck? Do you, as the shipper, or a third party (for example, a logistics firm or freight forwarder) select the mode of transport?

**There was considerable variation in the answers to this question. The customers are much more involved in the decision than in the grain industry where the elevator makes nearly all the decisions as to which mode will be used:**

- **Trucks bring in hot products, railroads bring in cold.**
  - **Their customer prefers rail. (5)**
  - **Their customer has limited rail access.**
  - **Distance to market dictates use of rail. (3)**
  - **Very quick delivery demands require trucks on occasion.**
7. What are the strengths and weaknesses of your short line RR? How does this help/hinder your ability to ship in a timely manner?

**The main strengths noted were customer service (10 comments) and very good communications (four comments). The weaknesses most often noted were that the short line was dependent on Class I railroads (three comments) and occasional car availability issues (two comments). Other comments:**

**Other Strengths**

- **Effective marketing.**
- **The short line helps our company maintain its yard locomotive.**
- **Strong management. (2)**
- **Switch with three Class I railroads.**

**Other Weaknesses:**

- **Frequency of service when employee shortages exist.**
- **Poor infrastructure and related derailments.**
- **No weaknesses mentioned. (2)**

8. Would you like to see more short line rail service? What would be the best frequency of short line service for your company? Is that more than you now receive? How would your business be affected if you had more frequent rail service?

**Six of the respondents indicated that they could not benefit from additional rail service. Other responses were:**

- **Four companies indicated that with more (daily) service they could possibly move more volume.**
- **One company indicated they would like to see the short line take over more Class I rail lines.**
- **One company requested 24 hour service, seven days per week.**
- **One company requested a local switch crew be placed in the community.**

9. What would your business do if your short line railroad were abandoned?

- a. Switch all shipments to for hire-trucking firms. **(8)**
- b. Purchase your own truck fleet.
- c. Move your business to another location if you could. **(3)**
- d. Go out of business. **(4)**
- e. Other (please specify)

- **Profit margins would be greatly affected by switching to trucks. (1)**
- **We would buy more trucks. We already own a few. (1)**
- **We have a “mobile” plant and could relocate. (1)**
- **There were several responses to this question where a combination of answers were given; such as a combination of for-hire trucking, possible relocation and possibly go out of business.**

10. If your short line railroad were closed, how many truckloads would you need to ship your products? How many truckloads would be needed to ship in raw materials and other products?

**Less than 2,000 truckloads (3)**

**Between 2,000 and 5,000 truckloads (4)**

**Between 5,000 and 20,000 truckloads (4)**

**Greater than 20,000 truckloads (3)**

**One company said they could not possibly use trucks. For the other 12 interviewed, 124,400 truck loads (or 248,800 total truck trips) would be needed to replace the rail shipments if the short line closed.**

11. What other factors can you identify (either related to the railroad or other factors) that might cause you to switch your business from rail to trucking?

**The issues of costs (five responses), car availability (two responses), and shortening of the distance to markets (two responses) were the major factors mentioned. Other comments:**

- **Poor rail service might force move to trucks.**
- **Untimely and unreliable rail service could force a move to ship by truck.**
- **Two companies indicated they would shut down the business before moving current rail shipments to truck.**

12. Were the improvements made using Short Line Loan/Grant Program funds beneficial to the service provided by your short line railroad service? Please briefly explain why or why not.

**The majority (seven responses) indicated they didn't notice service improvements due to projects. Other comments were:**

- **Three companies noticed improved car turn around times due to increased rail operating speeds.**
- **One company mentioned fewer derailments occurring.**
- **Three companies believe their overall rail service has improved in recent years, but; they weren't sure if improvements were due to a Program project.**

13. What future physical improvements to your railroad would be beneficial to your business? What other changes or improvements in your short line's service would you like to see, and that would benefit your business?

**There were four responses indicating needed track, tie and ballast improvements to benefit overall speed to improve car turn around time. Other responses were:**

- **No specific improvements (4)**
- **Load-out track extensions and improved industrial sidings**
- **Back-up locomotive power for short line**

- **Track upgrades to handle 286,000 pound loads**
  - **Upgrade and expand covered hopper fleet (2)**
14. What future improvements to your short line RR might encourage you to make more extensive use of their service?
- **Four respondents suggested this answer would be the same as the answer to question #13.**
  - **Four said there were no improvements that would cause them to ship more by rail.**
  - **Three indicated that improved operating speed might cause them to ship more by rail.**
  - **One company suggested better car availability at a particular location.**
  - **One company suggested that they would ship more if better hopper cars were available.**

15. Do you have your own direct side track or do you use a common team (a common siding used by more than one shipper) track?

**There was only one instance where a common team track was used. The majority of companies (nine) own their sidings. Two companies lease their sidings and two owned some and leased some track from the short line.**

16. If your business is a grain elevator, are you able to qualify for unit train rates? Also, are farm producers switching to larger elevators that can accommodate unit trains?

**Question not applicable (grain shippers discussed in previous section)**

17. Does your short line consolidate grain cars into unit trains? If not, would you utilize such a service if it were available?

**Question not applicable (grain shippers discussed in previous section)**

18. What are the positive aspects of how the state rail program is currently being administered by KDOT?

**There was a variety of responses to this question.**

- **Positive investments are being made.**
- **Improvements to the short line railroads help other businesses.**
- **Good rail system is required to safely move their hazardous materials.**
- **The Program is good for the short line and the region.**
- **Nine respondents had no comment.**

19. What changes, if any, in the administration of the state rail program would you recommend?

**A wide range of responses were given to this question:**

- **Continue the program. (3)**
- **KDOT should market the Program; perhaps through various trade/industry associations. There needs to be more awareness of the Program.**
- **Add sidings to the list of eligible projects to create partnerships with the railroads and shippers as well. (4)**
- **Increase the level of funding for the Program.**
- **Sidings are critical to staying competitive in manufacturing.**
- **The Program is a good use of state funds.**
- **Loan/grant Program with railroad match works well.**
- **The Program is good for local businesses.**

### 3.3 Class I Railroad Interviews

Interviews were conducted with the three Class I railroads that operate in Kansas. Both Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) own and operate significant amounts of mileage within the State. Although Kansas City Southern's (KCS) presence in the state is not as significant, the KCS does provide key connections to Kansas short lines operating in the state and serves communities along the Kansas-Missouri boundary.

#### **Summary of Key Comments:**

- **All three Class I railroads are very dependent on a strong network of short line rail roads.**
- **Short line railroads will do more industry switching for the Class I railroads in larger cities in the future.**
- **All three railroads indicated their short line partners have improved service and traffic to the Class I railroad following Program project improvements.**
- **Class I railroads are focusing on mainline economies of scale.**
- **Short lines may be more appropriate than some Class I railroads for the location of new business. It may be very difficult to serve a new customer on a high density Class I mainline. An analogy given was "it is not desirable to add curb cuts on an Interstate highway." (i.e., it is not wise to add too many access points onto a freeway)**

Following is an overview of the responses to the individual questions in the Class I railroad questionnaire (see Appendix A) during the three interviews mentioned above.

1. Have you sold or leased any of your branch lines to short lines in Kansas in the last five years? If yes, what branch line(s) and to what short line railroad(s).

**All three Class I railroads have sold or leased small amounts of branch line or other tracks to Kansas short lines in the last five years.**

2. Are you familiar with the Kansas DOT's Short Line Rail Program? If not, is there another individual within your company that is familiar with the KDOT Short Line Program? Please elaborate on your knowledge of the program.

**Only the Union Pacific was familiar with details of the KDOT Short Line Loan/Grant Program. That familiarity was due to UP's leases of some track to short line railroads and its involvement when those short lines seek Program funding.**

3. Have short line improvements made as a result of the KDOT Program helped short line railroads to provide additional traffic to your railroad? If yes, please provide examples. Do you know if such improvements were made using funding from this Program?

**All three railroads indicated short lines they interchange with have benefited from the KDOT program which also indirectly benefits the Class I railroads. Specific comments:**

- **UP has seen increased traffic from their short line partners.**
  - **BNSF sees improved customer service taking place after a short line uses the Program funds to upgrade lines that BNSF sold to the short line.**
4. Is the inability to handle 286,000 pound rail cars a problem affecting Kansas short lines? If so, is the problem more related to bridges and structures, or to track condition? Please elaborate. What do you feel are the long term impacts on Kansas short lines as they relate to 286,000 pound rail cars?
    - **Yes, there are lines that can't handle 286,000 pound loads. The deficiencies are both in track and structures. The problem will become more serious on lines shipping grain. Many customers are expected to demand 286,000 pound cars.**
    - **BNSF worked closely with the American Short Line Association in 2004 to get Congress to pass the Short Line Tax Credit program.**
  5. What interchange-related issues could be improved between your company and short lines in Kansas? If there are any, please elaborate.
    - **BNSF and their short line partner have interchange problems due to track limitations in Wichita that would make initiating shuttle trains at this location difficult.**
    - **UP has to run "Sunday extras" at times for their short line partner in the Wichita area also due to track capacity limitations.**

6. Do you generally support Kansas' Program of support to its short line railroads? Please elaborate...if "yes," why...if "no," why not?

- **All three Class I railroads support the KDOT Short Line Loan/Grant Program.**
- **UP emphasized that the monies must be spent wisely in order to maximize benefits, not to "spread" the funds to marginal projects.**
- **Many trucks are taken off of the roads due to the continued existence of short lines.**
- **BNSF says the Program is critical to its long term strategy. BNSF needs a strong feeder short line railroad network to support its high density mainline network.**

7. Has the Program been a good use of public funds for the State of Kansas? If so, would you recommend that the Program be continued and perhaps expanded? Please elaborate, if "yes,"...why...if "no," why not?

**There was consensus that the Program indirectly keeps Kansas' roads in better condition. Other specific comments:**

- **There must be criteria to ensure good projects are selected and funded. There may be potential projects that don't justify funding.**
- **All three Class I railroads agreed that the program should be continued; but not necessarily expanded.**

8. What changes to the Program would your company recommend?

**There were suggestions to add additional project eligibility such as interchange tracks, siding improvements, and other infrastructure improvements to enhance shuttle operations.**

9. Are you aware of any other state programs that promote the similar objective of improving a state's short line rail infrastructure? What is your opinion of the effectiveness of those programs?

**Iowa, Oklahoma, Washington, and Wisconsin have good short line programs that seem to be effective in helping the short lines in their states.**

10. Kansas' program does not currently allow for funds to make improvements to house tracks or team tracks. Is this an area of the program that should be revisited? (If "yes," why....if "no," why not?)

**Yes, however, longer sidings can cause highway crossings to be blocked in most communities. Improving house tracks (industrial sidings) also could take more traffic from trucks. These types of projects could be a three-way partnership between shippers, railroad(s) and the State.**

11. As the Class I railroads continue to evaluate the profitability of their networks, short line railroads may be required to provide Class I's with additional rail traffic. The KDOT Program has in recent years provided grants for the acquisition of a significant amount of mileage of a short line that was to be abandoned. Should the Program provide funding

for the future acquisition of any Class I mileage that may be rationalized? (Please elaborate on both “yes” and “no” answers).

**These types of projects should be evaluated on a case-by-case basis. This would help to protect industries on such lines from potential loss of service.**

12. Is there any of your railroads’ track within Kansas that may be subject to rationalization or abandonment within the near future (next 3 – 5 years)? If “yes” can you elaborate on those line segments?

- **There is no planned rationalization of any Class I lines in Kansas over the next five-year period.**
- **One railroad indicates it evaluates its lines carrying between five and 10 million gross ton miles per year as potential candidates for future spin off to short line railroads. It was noted that a majority of short line railroads carry less than five million gross ton miles per year.**

13. Would a decision to eliminate any segment of your system be affected by the potential for a short line railroad to continue to provide service to existing customers and to interchange that traffic to your railroad? Please elaborate.

**One Class I indicated that it needs short lines to feed its Class I network. They like to see traffic increase on the lines they previously owned.**

14. Do you believe that fewer grain shipments are being made to local grain elevators served by the short line railroads, with more coming directly via truck to the elevators served by your railroad? Please elaborate.

- **Some grain traffic is moving to shuttle loaders. Some shuttle loaders are on short lines and more may locate there if the track is upgraded to handle 286,000 pound cars and sidings are lengthened.**
- **Many short line railroads are providing creative pricing to keep their grain business from moving to shuttle loaders.**

15. Is there any of your railroad’s track in adjacent states that may be subject to rationalization in the near future (next 3 – 5 years) that might affect the future of short lines operating in Kansas? If “yes” can you elaborate on those line segments?

- **No Class I railroad lines were mentioned.**
- **Only the future status of the Colorado DOT-owned Towner line (connecting to the UP east of Pueblo, CO and to the K&O at Towner, CO) in southeast Colorado was mentioned as possibly impacting Kansas short lines.**

16. What do you foresee for the future of short line railroads within Kansas? Please elaborate.

- **The Class I railroads are focusing on mainline economies of scale.**
- **Short lines are becoming more important in providing cost effective service to customers.**

- **In general, the Class I representatives felt that short lines get 8 to 10 percent more business out of the Class III takeovers of Class I lines than the Class I railroad previously did.**
  - **Short lines may play a larger role in the future in terms of providing switching for the Class I railroads in larger cities.**
  - **Single box car business is an element of railroad business that needs to be enhanced, and short lines can play a role in this type of service.**
  - **Short lines may be more appropriate than some Class I railroads for the location of new business. It may be very difficult to serve a new customer on a high density Class I mainline. An analogy is “it is not desirable to add curb cuts on an Interstate highway.”**
  - **There may also be some rationalization of the short line network in Kansas in the future. Not all short lines fit the new roles mentioned above. Short lines requiring major capital renewal for track and structures may be at risk.**
17. Is the “future” identified in the question above unique to Kansas because of its short line Program or does that “future” apply to short lines in the other states in which you operate as well? If it is unique to Kansas, why is that so?

**The above future is not applicable only to Kansas. The new Class I and short line models are evolving all across the country.**

18. Do you enter into any agreements that permit short lines to consolidate shipments into unit trains to take advantage of your unit train rates? What advantages does this present for your railroad, the short line, and customers?

**The answer to this was mixed. Some Class I policies support utilizing the investment in the shuttle loaders, while others do work with short lines to gather cars to build unit trains.**

19. Do short lines complement your long haul freight business? (If “yes,”...why....if “no,”...why not?)

**Yes, short lines bring traffic to Class I railroads in a very cost effective manner. A significant percentage of all Class I business is interchanged with short lines. Short lines are a vital element of the Class I railroads’ success.**

20. Which short lines in Kansas would you rate as superior in their service? Why is their service superior? What about inferior service?

**The K&O, SK&O and Cimarron Valley were mentioned as having superior service. On the inferior side, it was mentioned that short lines generally can benefit from improved technology for reporting and paperwork.**

21. What are the positive aspects of how the state rail program is currently being administered by KDOT?

**The Class I railroads stated they benefit from the Program at arms length. None were aware of any negative aspect of the Program’s administration.**

22. What changes, if any, in the administration of the state rail program would you recommend?
- **Ensure that monies are spent efficiently.**
  - **Expand the Program to include industry tracks which will protect highway infrastructure and protect shipper choices.**

### 3.4 Other Interviews

Nine interviews were conducted with other individuals within associated with groups such as chambers of commerce, regional council of governments, and port authorities to gain perspectives from the economic development viewpoint regarding short line railroad transportation within the state.

#### **Summary of Highlights:**

- **The majority of representatives interviewed were not familiar with the Program.**
- **The responses were nearly unanimous in expressing the importance of short line railroads to the local communities.**
- **There were instances where new businesses had been attracted to communities because of the existence of the short line railroad service.**
- **The consensus was that loss of short line rail service would be very damaging to local economies.**
- **Ethanol plants, bio-diesel plants, coal-fired electricity generating plants and other new businesses are locating in Kansas communities with short line rail service.**
- **Kansas Short Line Loan/Grant Program is a good partnership between state and short line railroads.**

Following is an overview of the responses to the other representatives questionnaire (see Appendix A) from the nine interviews mentioned above. Specific comments are also shown in bullet form.

1. Were you familiar with the KDOT Short Line Loan/Grant Program prior to this interview? Are you aware of any improvements made by the short line Railroad in your area as a result of funding from the KDOT Short Line Loan/Grant Program? Please specify. Do you know if such improvements were completed with funding from this Program?

**The responses were relatively consistent.**

**Those individuals affiliated with the Mid-States Port Authority (MSPA) were very aware of the Program due to regular briefings by the Kyle Railroad at Port Authority Board meetings. Kyle Railroad had made the Mid-States Board aware of program funds being used along MSPA properties leased by the Kyle Railroad.**

**The majority of chamber of commerce representatives were not familiar with the Program. Also, chamber representatives generally didn't know about any**

**completed improvements. One exception was a chamber of commerce representative who was actually given a tour of a project being done utilizing Program funds by the short line railroad.**

2. Please describe the role and importance of your area's short line railroad in the local/regional economy?

**The responses were nearly unanimous in expressing the importance of short line railroads to the local communities. There were instances where new businesses had been attracted to communities because of the existence of the short line railroad service. Specific comments:**

- **The numbers of individuals employed by the railroads is important.**
  - **The railroads are key to providing competition to trucks in terms of freight rates.**
  - **Short lines are critical to Kansas' agricultural economies.**
  - **Rural communities are using short lines to attract business linked to grain, such as ethanol plants and other businesses such as the coal-fired power plant in Goodland.**
  - **Many businesses would not consider relocating to a community where rail service is not available.**
3. What business sectors and individual businesses are most reliant on short line RR service in your area?
    - **All aspects of the agriculture industry are very dependent on short line rail service.**
    - **Manufacturers of various products such as food related products and asphalt shingles, oil refining, steel and scrap metal, sand and gravel and proposed ethanol plants are also short line dependent.**
  4. What upcoming changes in local or state economic conditions or transportation would either reduce or increase the need for short line rail service in your area?
    - **Increases in bio-fuels as well as potential for new coal fired electricity generation could increase rail service demand.**
    - **Drought conditions can have a negative impact on the need for short line rail service in a state such as Kansas.**
    - **A proposal to build a new north/south Class I mainline in eastern Colorado could open up new markets for Kansas businesses using Kansas' short lines.**
    - **If rail service were to be removed from several communities, they would no longer be candidates for rail served types of business relocation.**

5. What would be the economic consequences of major service cuts or outright closure of the short line railroad serving your area?

**The consensus was that loss of rail service would be very damaging to local economies. Specific comments:**

- Many businesses would close or relocate to other regions or states where there is short line rail service.
  - Truck-only freight service would severely impact county economies.
  - Impacts to local and regional employment if rail service were lost would be devastating.
  - Many more trucks would be operating on the highways.
  - Local economies would be devastated.
  - Very few new businesses would be interested in relocating to such areas.
6. What specific economic/business sectors or individual railroad customers would be most seriously harmed as a result of short line railroad closure. What impacts would you expect: (for example: outright business closure or move out of the area, increased transportation costs from shifting business to truck, other).

**The consensus was that closure of a short line railroad would harm all aspects of a community. Specific comments:**

- Entire communities would be harmed.
  - All sectors would suffer economically if rail service was eliminated.
  - Certain businesses would close permanently; others would be forced to relocate, possibly out of Kansas.
  - Transportation costs would increase for those that could switch to trucking.
  - Agriculture and manufacturing would both be hurt by loss of short line rail service.
7. By contrast, what specific economic/business sectors or individual railroad customers would benefit from enhanced or expanded short line rail service? What benefits would you expect (for example, expanded output, more businesses moving in to the area, lower transportation costs, other)?

**There was strong agreement that short line service expansion or enhancement benefits communities. Specific comments:**

- The entire community would benefit.
- New businesses would continue to consider relocating to these communities.
- The success of new businesses is viewed by other businesses and it has a positive domino effect.
- Outlying smaller communities rely on the services available in many of the larger communities that have rail service.

8. What promising local area economic development opportunities would be missed if the short line railroad substantially reduced service or closed entirely?
- **Coal fired electricity generating plants**
  - **Ethanol and bio-diesel plants**
  - **Most new business opportunities**
  - **Future expansion of the aviation industry related manufacturing**
9. By contrast, what promising local area economic development opportunities would benefit from enhanced or expanded short line rail service?

**This question was answered with the same types of businesses and opportunities as would be missed in question #8.**

10. Please talk about the quality of the area's short line railroad service.
- **Railroads are very easy to communicate with.**
  - **The short lines provide excellent service.**
  - **Local General Manager does a good job; however, there are some issues with the corporate office staff.**
  - **The short line is very flexible in their service options.**
  - **No complaints are received regarding rail service issues in the community.**
  - **The short line has an excellent reputation.**
  - **The railroad is very customer oriented.**
11. What improvements, if any, to the area's short line railroads would most benefit the local/regional economy?
- **Add more sidings and improve condition of sidings.**
  - **Improve speed limits up to 40 mph.**
  - **Improve tracks to handle 286,000 pound rail cars.**
  - **Build additional overpasses to eliminate conflicts between railroads and automobile traffic.**
  - **Upgrade track condition to improve rail related safety.**
  - **Add an intermodal facility along the short line where appropriate.**
12. Describe the ability of the area's highways and roads to absorb increased truck traffic that might result from abandonment of the area's short line railroad(s). Please identify any specific problems in the highway and road network that would need to be improved to absorb additional truck traffic.

**There was consensus that Kansas' state and local roads would suffer as a result of the abandonment of the state's short line railroads. Specific comments were:**

- **Highway damage would increase significantly.**
  - **Interstate highways could probably absorb traffic, but Kansas state highways and county roads would need to be built up.**
  - **The north-south roads in particular would need to be upgraded to handle truck traffic moving north or south to tie into the Class I railroads that predominantly go east-west.**
  - **Concern was expressed about increased highway safety due to increasing numbers of large trucks.**
  - **There would be a need to widen more highways from two to four lanes if railroads were abandoned.**
  - **Highways are already carrying more trucks than they were designed for; additional truck traffic would be very harmful to highways.**
13. How has the KDOT Short Line Loan/Grant Program benefited your area's short line railroad? What improvements in service have the railroads realized as a result of the program? What specific examples can you describe?

**Most of these respondents didn't know of the specifics of the improvements created by using program funds. Specific comments:**

- **Railroad operating speeds may have improved.**
  - **Rail/highway crossing improvements have been done (the respondent was informed that these improvements were from a different KDOT program).**
14. Describe the impact and importance of the KDOT Short Line Loan/Grant Program to the area's economy.
- **It helps the railroad be as efficient as possible, thereby being an inducement to new businesses.**
  - **The local shippers and short lines don't have the financial resources to do all the work on this important infrastructure.**
  - **It helps to preserve competitive freight service.**
  - **The Program has allowed the short lines to stay in business which benefits all aspects of the local economy.**
15. What changes, if any, in the program would be most beneficial to the area's economy? For example, more funding, funding available for different purposes or additional purposes, different program requirements and incentives, etc.)
- **Three indicated there should be significant increase in the amount of money in the program.**
  - **The program should be more flexible in terms of the percentages of grants and loans that fund projects.**

- **Money should be able to be spent on needed crossing improvements and overpasses.**
  - **Sidings and unit grain loaders should be eligible Program expenses.**
16. What are the positive aspects of how the state rail program is currently being administered by KDOT?

**Several individuals were not familiar enough with the Program to comment on its administration. Other specific comments:**

- **KDOT staff will travel to make Program briefings to Board meetings, which is very positive.**
  - **KDOT is a very good partner.**
  - **KDOT's Rail Affairs Unit is very willing to work with both the short lines and shippers.**
  - **Looking somewhat from afar, KDOT appears to deal with each short line in the same manner.**
  - **The good working relationship that has been established is very helpful.**
17. What changes, if any, in the administration of the state rail program would you recommend?

**Most respondents didn't suggest any administrative changes. Specific comments:**

- **KDOT should distribute more information to the public about the program.**
- **Our agency would support any administrative changes suggested by the short line serving this community.**

### 3.5 Other States Short Line Railroad Assistance Programs

There are other state DOT's that to one extent or another, are involved in providing assistance to short line railroads. KDOT may want to consider some elements of these other state DOT short line railroad assistance programs as it considers the future of the Program. These recommendations will be discussed in Chapter 8. Kansas currently has a constitutional prohibition from owing rail rights-of-way. Some experiences of State railroad ownership, particularly shortlines, are also noted below. Specific elements of some of the various state programs are included in Appendix C. Brief descriptions of those state programs that have been evaluated during this Study follow:

#### Colorado DOT

Colorado does not have an active program to provide short line railroad assistance. However, in 1997, Colorado enacted legislation that allows the State of Colorado to acquire an existing rail line or railroad right-of-way or an abandoned railroad right-of-way under certain conditions. Any such rail property acquired by the State of Colorado constitutes the State Rail Bank.

In 1998, the Colorado General Assembly enacted H.B. 1001 that created the State Infrastructure Bank (SIB). The SIB provides loans to communities throughout Colorado to help fund transportation projects. As project loans are repaid, more capital becomes available for new projects. The SIB contains four accounts, (i.e., highways, aviation, rail, and transit). However, the rail and transit accounts are inactive since no funding has been provided to these accounts by the General Assembly for loans for rail and transit projects.

#### Iowa DOT

Iowa DOT is currently in the process of developing the rules for a new combined program that was created by the Iowa Legislature during the 2005 session. This new program, currently referred to as the Rail Revolving Loan and Grant Program, will be a composite of the old Iowa Railway Finance Authority (IRFA), the Rail Economic Development (RED) program, and the Rail Assistance Program (RAP). The program, when brought on line in early 2006, will offer grants and low interest loans for both economic development and short line railroad rehabilitation. No formal rules to govern the new program are currently available and the application process is still to be developed.

The Intermodal Pilot Project Program (IPPP) is the one existing program that will continue as it has in the past. The Intermodal Pilot Project Program (see Appendix C) offers low interest loans for projects that promote the interaction of freight movements between modes of transportation (i.e., truck to train, train to barge, etc). Program requirements are that the project must demonstrate energy savings.

#### Oklahoma DOT

Oklahoma Department of Transportation (ODOT) does not have an all-encompassing program for short line railroad assistance. ODOT, in 2003, began a loan program, (Railroad Rehabilitation Act Loan Program) for Oklahoma's rail freight operators. Also, a tax credit program for reconstruction or replacement expenditures was created by the Legislature in 2005. This legislation is intended to assist the short lines in bringing their track and bridges up to the 286,000 load limits.

ODOT owns 867 miles of railroad track in Oklahoma. Short line companies operate 531.5 miles are operated by through long term track leases or lease-purchase agreements. Examples of these companies include Farmrail, AT&L, WT&J, Stillwater Central, and AOK companies. ODOT does provide annual assistance to short lines on state-owned properties based on maintenance plans provided by the short lines. The Union Pacific operates 325 miles of state-owned track that are under lease-purchase agreements.

#### Washington DOT

The State of Washington's constitution allows Washington DOT to provide grants to rail lines owned by public entities like ports or cities, and give 10 to 15 year loans at zero interest to other private short lines (see Appendix C). However, the legislature has lately taken to earmarking over 90 percent of the funds, so this is not a very important part of Washington's process any longer.

The State of Washington also provides other forms of assistance to short line railroads. The state has 94 100-ton used grain hoppers in the Washington Grain Train program for short lines, 18 of which are owned by the Port of Walla Walla. Washington DOT has also funded

long term loans to buy two used locomotives for short lines, and some track maintenance equipment was bought in earlier years.

The State of Washington also owns railroad rights-of-way and leases them to short line railroads. The State owns 300 miles of the Palouse River & Coulee City RR's right-of-way and leases it to Watco. Washington also owns another short line which is currently dormant.

### Wisconsin DOT

The State of Wisconsin has a grant program, Freight Rail Preservation Program (FRPP) and a loan program, Freight Rail Infrastructure Improvement Program (FRIIP) for short lines. The FRPP is Wisconsin's original rail assistance program. It was created in 1977 to help preserve freight rail service during an era when widespread railroad bankruptcies and line abandonments threatened the availability of rail service in Wisconsin.

Initially, the program was limited to grants to local governments because of constitutional restrictions on state assistance to railroads. But in 1992, Wisconsin voters approved a constitutional amendment that allowed state money to fund railroads as a type of infrastructure improvement.

In 1992, the original rail assistance grant program was replaced by the current FRPP which provides grants to local units of government, industries, and railroads for the purpose of preserving essential rail lines and rehabilitating them following purchase.

Since 1980, under both the original rail assistance program and FRPP, some \$80 million in grants have been awarded for rail acquisition and rehabilitation projects. The 2003-2005 state budget provides \$4.5 million in bonding authority for the program.

The Freight Railroad Preservation Program provides grants up to 80 percent of the cost to:

- Purchase abandoned rail lines in an effort to continue freight service, or for the preservation of the opportunity for future rail service;
- Rehabilitate facilities, such as tracks or bridges, on publicly-owned rail lines.

Also in 1992 the FRIIP loan program was added to the state's rail assistance program. FRIIP loans enable the state to encourage a broader array of improvements to the rail system, particularly on privately owned lines. It also provides funding for other rail related projects such as loading and trans-loading facilities.

Since 1992, \$58 million in FRIIP loans have been awarded. The 2003-05 state budget provides \$11.1 million for the FRIIP. The available funding is from repayments of prior loans.

The FRIIP provides up to 100 percent loans for rail projects which:

- Connect an industry to the national railroad system;
- Make improvements to enhance transportation efficiency, safety, and intermodal freight movement;
- Accomplish line rehabilitation; and
- Develop the economy.

Wisconsin DOT also owns approximately 550 miles of rail right-of-way. Most of this right-of-way is jointly owned with local units of government or groups of local governments, primarily counties. The local governmental unit is responsible for contracting for railroad operation.

## 4.0 DETAILED BREAKDOWN OF PROGRAM EXPENDITURES AND USES

The Program was established to provide short line railroads operating in Kansas with low-interest loans and grants to be used primarily for track rehabilitation.

The Program is part of Kansas' Comprehensive Transportation Program (House Bill 2071) that was signed into law in May 1999. The Program was funded for an eight-year period beginning with state fiscal year 2000. The Program provides \$3 million per year for those eight years and was intended to become self-sustaining through the railroads' repayment of principal and interest on the rail improvement loans.

Early in the life of the Program, the State faced the potential abandonment of the Central Kansas Railway's (CKR) 725 miles of rail lines which primarily served agricultural areas in central and western Kansas. To prevent this abandonment, funds were granted to assist Watco Companies, Inc. with the purchase of the CKR and continued operation of rail service. The benefits of this action are further discussed in Chapter 6.

The following sections provide a detailed summary of the Program and the use of funds during state fiscal years 2000-2005.

### 4.1 Program Expenditure Summary

Eight of the sixteen short line railroads in Kansas have participated in the Program. Table 4-1 notes these railroads, their portion of the overall short line system, their volume of freight, and the funding they have received during state fiscal years 2000 through 2005. The percentage of Program loans and grants received by each railroad roughly corresponds to the percentage of the overall short line system operated and freight handled by that railroad.

**Table 4-1**  
**SFY 2000 - 2005: Railroads Participating in SRSIF <sup>1</sup>**

Short Line Railroad Participating in SRSIF Program (Rehabilitation Projects) <sup>1</sup>	SRSIF Funds <sup>1</sup> (\$)	SRSIF Funds <sup>1</sup> (%)	Branch Lines Owned <sup>3</sup> (miles)	Branch Lines Owned (%)	Freight Volume <sup>4</sup> (carloads)	Freight Volume (%)
Boothill & Western	431,459	3.5	26	1.5	700	0.5
Victoria & Southern	232,927	1.9	21	1.2	1500	1.1
Kansas Southwestern <sup>2</sup>	435,812	3.5	----	----	----	----
NKC RailNet	443,098	3.6	122	7.3	1700	1.3
New Century Air Center	790,166	6.4	5	0.3	1800	1.4
Kyle	2,368,711	19.2	271	16.1	23,000	17.6
South Kansas & Oklahoma	3,652,996	29.7	305	18.1	46,500	35.6
Kansas & Oklahoma	3,949,982	35.6	616	36.6	55,300	42.4
Totals (Rail Rehab. Projects)	12,305,151	100	1366	100	130,500	100

<sup>1</sup> Table 4.1 provides information for rehabilitation projects; the SRSIF also provided \$8.5 million to assist with the acquisition of the CKR lines to prevent abandonment

<sup>2</sup> Part of the CKR system later acquired by the K & O Railroad

<sup>3</sup> KDOT *Rail Plan 2003-2004*

<sup>4</sup> PB interviews of short line railroads (2004 data), Boothill & Western from KDOT *Rail Plan 2003-2004*

## 4.2 Program Expenditures, by Railroad Line, and Type of Investment (ties and ballast, ROW acquisition, acquisition of CKR, etc.)

The Program is a good example of a public/private partnership working together to improve transportation in Kansas. Table 4-2 provides a breakdown of the Program expenditures by railroad. The railroads total contribution is nearly 30 percent of the Program total. For each project, the state funded loan and/or grant amount(s) are listed along with the railroad's matching share of the project costs.

**Table 4-2**  
**SFY 2000 – 2005: SRSIF Program Expenditures by Railroad <sup>1</sup>**

Short Line Railroad Participating in SRSIF Program	Project Number	Loan Amount <sup>1</sup>	Grant Amount <sup>1</sup>	Total State Share <sup>1</sup>	Railroad Share	Grand Total
Boothill and Western	8019-21	246,548	184,911	431,459	184,911	616,370
Victoria & Southern	8024-51	232,927	0	232,927	99,826	332,753
Kansas Southwestern	8028-01	435,812	0	435,812	130,744	566,556
NKC RailNet (8049)	8049-01	443,098	0	443,098	189,899	632,997
New Century Air Center	8072-01	210,000	0	210,000	90,000	300,000
	8072-31	217,197	162,898	380,095	162,898	542,993
	8072-41	0	200,071	200,071	0	200,071
	<b>NCAC Total</b>	427,197	362,969	790,166	252,898	1,043,064
Kyle	8033-01	386,002	0	386,002	165,430	551,432
	8033-11	226,985	170,239	397,224	170,239	567,463
	8033-21	266,514	199,885	466,399	199,885	666,284
	8033-31	406,930	305,197	712,127	305,197	1,017,324
	8033-41	232,548	174,411	406,959	174,411	581,370
<b>Kyle Total</b>	1,518,979	849,732	2,368,711	1,015,162	3,383,873	
South Kansas & Oklahoma	8054-01	249,616	0	249,616	106,978	356,594
	8054-02	225,834	0	225,834	96,786	322,620
	8054-21	251,100	188,325	439,425	188,325	627,750
	8054-22	300,120	225,090	525,210	225,090	750,300
	8054-31	55,281	41,461	96,742	41,461	138,203
	8054-33	190,118	142,588	332,706	142,588	475,294
	8054-35	247,207	185,405	432,612	185,405	618,017
	8054-37	163,721	122,791	286,512	122,791	409,303
	8054-38	178,076	133,557	311,633	133,557	445,190
	8054-42	83,916	62,937	146,853	62,937	209,790
	8054-51	409,711	0	409,711	175,591	585,302
	8054-52	252,784	0	252,784		
	8054-53	196,142	0	196,142	84,061	280,203
<b>SK&amp;O Total</b>	2,550,842	1,102,154	3,652,966	1,565,570	5,218,566	
Kansas & Oklahoma	8029-22	395,250	296,438	691,688	296,438	988,126
	8029-23	148,800	111,600	260,400	111,600	372,000
	8029-32	183,681	137,761	321,442	137,761	459,203
	8029-33	175,077	131,307	306,384	131,307	437,691
	8029-42	170,032	127,524	297,556	127,524	425,080
	8029-43	150,442	112,831	263,273	112,831	376,104
	8029-44	178,390	133,793	312,183	133,793	445,976
	8029-45	208,127	156,095	364,222	156,095	520,317
	8029-52	1,132,834	0	1,132,834	485,500	1,618,334
<b>K&amp;O Total</b>	2,742,633	1,207,349	3,949,982	1,692,849	5,642,831	
<b>SRSIF Program Total</b>		8,598,036	3,707,115	12,305,151	5,131,859	17,437,010

<sup>1</sup> Loan and grant amounts shown are for railroad rehabilitation projects and do not include the acquisition of the CKR system.

The following sets of photographs provide a feel for the before and after conditions of several rail lines that were improved through the Program.



Before  
SK & O rail line between Cherokee and Sherwin.



After  
Project replaced ties, ballast, and surfacing



Before  
K & O rail line between Frontier and Conway.



After  
Project replaced ties, ballast, and surfacing.



Before  
Kyle rail line between Yuma and Scandia.



After  
Project replaced ties, ballast, and surfacing.

The majority of the projects funded through the Program have been for the rehabilitation of existing rail lines to improve service to businesses and communities in Kansas. The acquisition of rail lines that otherwise may be abandoned are also eligible for funding.

Rehabilitation projects include cross-tie replacement, ballast replacement, surface improvements, and other track materials. Definitions for these items are as follows:

- **Rail:** A road composed of parallel heavy metal bars supported by ties, which are connected by metal plates and fasteners and provide a track for locomotive-drawn trains or wheeled vehicles to travel. Rail weights are from 60 to 155 pounds per yard. The length of rail is from 30 feet to 78 feet, with 39 being the standard.
- **Crossties (or Ties):** Crossties are made of wood or concrete. Crossties rest in a bed of gravel ballast and directly support the railroad tracks that are attached to them.
- **Ballast:** Crushed rock or gravel used in railroad beds to provide a foundation for the tracks and to give the railcars stability.
- **Surface:** The surface condition of the railroad track relating to vertical evenness or smoothness. This mechanized surfacing activity is conducted to properly align the rails following tie and ballast improvements.
- **Switch:** The connection between two lines of track to permit cars or trains to pass from one track to the other.
- **OTM:** Other track materials

Table 4-3 shows the projects that were programmed during state fiscal years 2000 through 2005 and provides a summary of the types of improvements.

**Table 4-3**  
**SFY 2000 - 2005: SRSIF Program Expenditures by Type**

State Fiscal Year	Entity Receiving Funds	Loans (\$) <sup>2</sup>	Grants (\$) <sup>2</sup>	Loans & Grants Total (\$) <sup>2</sup>	Purpose	Total Miles
2000	KSW RR	435,812	0	435,812	Ties, Ballast, Surface, OTM	22.2
	Kyle RR	386,002	0	386,002	Ties	62.0
	NKC RR	443,098	0	443,098	Ties, Ballast, Surf, Rail, OTM	73.2
	SK & O RR	249,616	0	249,616	Ties, Ballast, Surface	28.4
	SK & O RR	225,834	0	225,834	Ties, Ballast, Surface, OTM	23.6
	NCAC RR	210,000	0	210,000	Ties, Ballast, Surf, Rail, OTM	5.0
	Total	1,950,362	0	1,950,362	Total Miles Rehabilitated	214.4
2001	Kyle RR	226,985	170,239	397,224	Ties, OTM	59.0
	K & O RR	0	2,000,000	2,000,000	Acquisition of CKR/KSW	725.0 <sup>1</sup>
	Total	226,985	2,170,239	2,397,224	Total Miles Rehabilitated	59.0
2002	BHW RR	246,548	184,911	421,459	Ties, Ballast, OTM	9.0
	K & O RR	395,250	296,438	691,688	Ties, Surface	50.0
	K & O RR	148,800	111,600	260,400	Ties, Ballast, OTM	10.0
	K & O RR	0	2,000,000	2,000,000	Acquisition of CKR system	725.0
	Kyle RR	266,514	199,885	466,399	Ballast, Surface	85.0
	SK & O RR	251,100	188,325	439,425	Ties, Surface	27.0
	SK & O RR	300,120	225,090	525,210	Ties, Ballast, OTM	29.8
	Total	1,608,332	3,206,249	4,814,581	Total Miles Rehabilitated	210.8

State Fiscal Year	Entity Receiving Funds	Loans (\$) <sup>2</sup>	Grants (\$) <sup>2</sup>	Loans & Grants Total (\$) <sup>2</sup>	Purpose	Total Miles
2003	K & O RR	0	1,500,000	1,500,000	Acquisition of CKR system	725.0 <sup>1</sup>
	K & O RR	183,681	137,761	321,444	Ties, Ballast, OTM	17.0
	K & O RR	175,077	131,307	306,384	Ties, Ballast, Surface	13.5
	Kyle RR	406,930	305,197	712,127	Ties, Ballast	36.0
	SK & O RR	55,281	41,461	96,742	Ties, Ballast, Surf, Rail, OTM	0.3
	SK & O RR	190,118	142,588	332,706	Ties, Ballast, Surface, OTM	26.7
	SK & O RR	247,207	185,405	432,612	Ties, Ballast, Surface, OTM	37.2
	SK & O RR	163,721	122,791	286,512	Ties, Ballast, Surface, OTM	20.0
	SK & O RR	178,076	133,557	311,633	Ties, Ballast, Surface, OTM	18.1
	NCAC RR	217,197	162,898	380,095	Ties, Ballast, Surf, Rail, OTM	5.0
Total		1,817,288	2,862,966	4,680,253	Total Miles Rehabilitated	173.8
2004	K & O RR	0	1,500,000	1,500,000	Acquisition of CKR system	725.0 <sup>1</sup>
	K & O RR	170,032	127,524	297,556	Ties, Ballast, Surface, OTM	16.4
	K & O RR	150,442	112,831	263,273	Ties, Ballast, Surf, Rail, OTM	1.2
	K & O RR	178,390	133,793	312,183	Ties, Ballast, Surface, OTM	15.0
	K & O RR	208,126	156,095	364,221	Ties, Ballast, Surface, OTM	17.5
	Kyle RR	232,548	174,411	406,959	Ties, Ballast, Surface, OTM	14.0
	SK & O RR	83,916	62,937	146,853	Ties, Ballast, Surface, OTM	8.0
	NCAC RR	0	200,071	200,071	Switches, Ballast, OTM	5.0
	Total		1,023,454	2,467,662	3,491,116	Total Miles Rehabilitated
2005	K & O RR	0	1,500,000	1,500,000	Acquisition of CKR system	725.0 <sup>1</sup>
	K & O RR	1,132,834	0	1,132,834	Ties, Ballast, Surface, OTM	64.0
	SK & O RR	409,711	0	409,711	Ties, Ballast, Surface, OTM	19.0
	SK & O RR	196,142	0	196,142	Ties, Ballast, Surface, OTM	11.1
	V & S RR	232,927	0	232,927	Ties, Ballast, Surf, Rail, OTM	10.0
Total		1,971,615	1,500,000	3,471,615	Total Miles Rehabilitated	105.3
2000-2005 Program Grand Total		8,598,036	12,207,116	20,805,152	Miles Acquired (CKR) Miles of Rail Rehabilitation	725.0 839.2
<u>Summary of Rehabilitation Projects</u> State Fiscal Years 2000 – 2005 Miles of Improvement by Type				12,305,151	Ties Ballast Surface Rail Other Track Materials	749.2 700.2 673.4 94.7 577.8

<sup>1</sup> Funding to assist with the acquisition of the 725-mile CKR system is spread over a number of years

<sup>2</sup> Funding amounts have been rounded to the nearest whole dollar

### 4.3 Program Expenditures Relative to Capital Needs

Through the first six years of the Program approximately one half of the short line rail system has received basic improvements to ties, ballast, and surface. While these improvements have significantly improved service in some areas, other needs remain.

As the Class I railroads increase the number of 286,000 pound rail cars in their fleets, consideration should be given to upgrading at least some of the short line rail system to accommodate these heavier loads must be made. To support the 286,000 pound rail cars, there must be an adequate combination of rail, crossties, and ballast. Class I railroads suggest that 112 to 115 pound rail (weight per three foot section) be the minimum used. Studies by Zeta-Tech (2000) and Casavant and Tolliver (2001) concluded that 90 pound rail can not withstand the stress of 286,000-pound rail cars and should be replaced with heavier weight rail. Class I railroads also indicate that 9-12 inches of ballast are needed to support the 286,000 pound cars.

A September 2004 study prepared by Kansas State University (KSU) addressed the impacts of these “jumbo hopper” cars on Kansas short line railroads. As part of that study, five of the railroads comprising 89 percent of the short line system were interviewed regarding the condition of their lines. These railroads indicated that approximately 70 percent of the tracks they own or operate would need to be upgraded to handle the 286,000 pound rail cars as well as 86 percent of their bridges.

Table 4-4 provides information from the KSU study regarding track miles (owned and leased) of major Kansas short lines by rail weight and rail type as of summer 2003. Approximately 69 percent of jointed track and 13 percent of the continuous welded rail was 90 pounds or less.

**Table 4-4**  
**Miles of Track by Rail Weight and Rail Type<sup>1</sup>**

Rail Weight (Pounds Per Yard)	Rail Type		Total Miles
	Jointed	Continuous Welded	
Less than 70	0	0	0
70-89	370.0	0	370.0
90	815.1	71.9	887.0
91-111	352.3	5.4	357.7
112	80.3	192	272.3
115	23.0	119	142.0
116-131	0	0	0
Greater than 131	68	155.0	223.0
Total Miles	1,708.7	543.3	2,252.0

<sup>1</sup> Data supplied by representatives of the five Kansas short line railroads (89 percent of short line system).

Table 4-5 provides information from the KSU study regarding the miles of Kansas short line track by rail weight and percent of good cross ties. This information indicates that 35 percent of the overall track miles have fewer than 45 percent good cross ties. Another 36 percent of the total track miles have 45 percent to 64 percent good cross ties. For rail weight of 90 pounds or less, three-fourths of the track miles have 64 percent or less good cross ties.

**Table 4-5**  
**Miles of Track by Rail Weight and Percent of Good Cross Ties<sup>1</sup>**

Rail Weight (Pounds Per Yard)	Percent of Good Cross Ties				Total Miles
	Less than 45%	45% to 64%	65% to 85%	Greater than 85%	
Less than 70	0	0	0	0	0
70-89	80.0	285.0	5	0	370.0
90	346.0	235.0	306.0	0	887.0
91-111	257.7	75.0	25.0	0	357.7
112	31.3	91.0	150.0	0	272.3
115	0	42.0	100.0	0	142.0
116-131	0	0	0	0	0
Greater than 131	74.0	90.0	49.0	10.0	223.0
Total	789.0	818.0	635.0	10.0	2,252.0

<sup>1</sup> Data supplied by representatives of the five Kansas short line railroads (89 percent of short line system).

Table 4-6 contains information from the KSU study regarding the depth of ballast on the short line rail system. Approximately 58 percent of the track miles have 8 inches or less ballast under the rails.

**Table 4-6**  
**Miles of Track by Rail Weight and Ballast Depth<sup>1</sup>**

Rail Weight (Pounds Per Yard)	Ballast Depth				Total
	Less than 6"	6 to 8"	9 to 12"	13 to 17"	
Less than 70	0	0	0	0	0
70-89	160.0	210.0	0	0	370.0
90	390.0	267.0	230.0	0	887.0
91-111	40.0	30.0	287.7	0	357.7
112	45.0	36.0	191.3	0	272.3
115	0	23.0	0	0	23.0
116-131	0	0	4.0	0	4.0
Greater than 131	13.0	82.0	124.0	119.0	338.0
Total	648.0	648.0	837.0	119.0	2,252.0

<sup>1</sup> Data supplied by representatives of the five Kansas short line railroads (89 percent of short line system).

While general information has been collected, a detailed inventory of the conditions of the entire short line rail system is not available, but would be useful to KDOT in developing a vision or long range plan for improvements. The inventory should include the weight of rail, percent of good cross-ties, the amount of ballast, and the condition of the bridges. A long range plan should identify priority routes on the short line system and provide input into the Program.

## 5.0 IMPACTS ON RAILROAD OPERATIONS

The Program was put in place by the State legislature to address the rehabilitation needs of Kansas' short line railroads. The Study Group that made the programmatic recommendations for the various transportation modes recognized the importance of short line railroads in the transportation of agricultural and other products, and the effects to the State's highway maintenance budgets if the short line railroads were not supported.

### 5.1 Operational/Service Improvements

The Program projects that have been completed over the past 6 years have in many cases provided quantifiable service improvements for the short lines whose railroad was being rehabilitated. As stated in Chapter 4, the majority of the Program projects have been for rehabilitation of short line railroad mainlines and have primarily included tie and ballast replacement and associated line and surfacing work.

These types of projects in many cases occurred on railroad tracks that were in a deteriorated enough condition as to require 'slow orders'. In these instances, the operating short line requires its railroad engineer to operate any trains through this area at less than the posted operating speed. For example, a section of railroad that has a maximum operating speed of 25 miles per hour may have slow orders restricting speeds to 10 miles per hour on a section of track in poor condition. Following the completion of the Program rehabilitation projects, the tie and ballast condition has been upgraded to eliminate these slow orders.

This type of improvement allows the railroad to average higher speeds, which has several tangible benefits. Customers' cars are returned more quickly, thereby reducing the number of rail cars that a particular customer may require to move his product from one point to another. Also, the railroad benefits from reduced labor costs since the trains complete operations in a shorter amount of time. The interviews conducted as a part of this study have identified car turn around improvements from 2.1 round trips per month to 2.7 round trips per month. Such savings were identified by shippers benefiting from speed improvements after many of the Program projects.

There are projects where the improvement does not improve operating speed, but it does allow that particular section of track to continue to be operating at a particular speed for perhaps several additional years. If the project hadn't been completed, the track might soon be downgraded from 25 miles per hour to 10 miles per hour or possibly abandoned at some point in the future.

There have been several projects completed by the Program where other operational improvements occur. Examples of these projects are adding additional track and switches in a yard area that improves a short line's operational efficiency and creates additional rail capacity.



**Clean Up of a Grain Hopper Derailment**

The ability of a short line railroad to reduce the number of derailments on a line as a result of a rehabilitation project is also of great benefit to the railroad as well as the shipper. The dependability of rail shipments reaching the destination with a reduced risk of derailment was mentioned by numerous shippers and short line railroads as a definite benefit of the Program projects.

## 5.2 Short Line Railroad Abandonments Avoided

The above Section discusses operational improvements that can be the result of Program projects. The assumption that each and every project funded by the Program eliminates a future abandonment cannot always be considered valid. In most cases, projects have provided operational savings to the railroad. In other cases, the project extends the life of the rail line being rehabilitated while allowing the railroad to continue operating at the levels of service that are acceptable and have come to be expected by the shippers on that rail line.

The only time in the history of the Program where an abandonment was clearly prevented due to Program funding was in 2001 when the State of Kansas and the KDOT were faced with the pending abandonment of the Central Kansas Railway (CKR) within Kansas. That short line railroad owned and operated approximately 900 miles of rail line within the state. Watco Companies, which was operating the South Kansas and Oklahoma Railroad in southeast Kansas at that time, approached KDOT about the possibility of receiving State assistance in its attempt to acquire the CKR and keep critical short lines within the State from being

abandoned. In order to prevent the abandonment of this mileage, Watco Companies and KDOT reached agreement on using a portion of the Program funds for grants to Watco Companies newly formed Kansas and Oklahoma Railroad to assist with the acquisition of the CKR from its parent company, OmniTRAX Inc. of Denver, Colorado on June 29, 2001.

The information obtained throughout the interviews of not only the shippers, but also the Class I railroads, indicates that without the Program the CKR would have been abandoned and the current K&O rail network, which carried over 55,000 carloads in 2004 would not exist today. A separate analysis of the economic benefits of that use of the Program is discussed in more detail in Chapter 6.

### 5.2.1 Underlying Causes of Short Line Railroad Abandonments

There are many reasons why short line railroads are abandoned. In many cases, the infrastructure that has been acquired by the short line railroad has had a considerable amount of deferred maintenance by the previous railroad operator, often a Class I railroad. The railroad industry, even the profitable Class I railroads, struggles to earn the cost of capital. This makes it very difficult to properly maintain lines that aren't generating much revenue. In many cases, a short line assumes that it will be able to generate revenues that the Class I railroad was unwilling to pursue due to the short lines ability to provide more flexible and more efficient rail service. In some cases these projected revenue increases do not materialize and the short line inevitably has significant operating losses which necessitate abandonment of the line.

### 5.2.2 Short Line Railroad Abandonment Trends and Currently Planned Abandonments

Short line railroads have been active partners with the Class I railroads in recent years in the Class I railroads' program to rationalize their networks. As an example, the BNSF only abandoned 335 mile of railroad across the entire BNSF system from 1995 to 2002. However, and additional 4,426 miles of BNSF track was either sold or leased. Most of these sales or leases were to short line railroads. In certain instances, the revenue anticipated by the short line has failed to materialize and the short line is forced to either sell to another short line, or abandon the unprofitable route.

A unique situation regarding the potential for a future Kansas short line railroad abandonment has been identified. The Mid-States Port Authority bonds, which were used to acquire the former Rock Island Railroad in Kansas between the Colorado line near Kanorado and the Nebraska state line near Mehaska, are to be fully paid in 2009. At that time, the Kyle Railroad has the opportunity to buy the property currently owned by Mid-States Port Authority for \$1. It is most likely that the Kyle will exercise its option to acquire the 275 miles of railroad it currently leases from Mid-States in 2009.

The Kyle Railroad has a special authority from the Interstate Commerce Commission/Surface Transportation Board to operate because of the Rock Island Railroad bankruptcy. Kyle Railroad would have the authority to abandon this line after 30 days notice to the public. Due to the record high prices of scrap steel that currently exist, Kyle Railroad could potentially attempt to abandon and salvage the 275 miles of railroad in Kansas currently owned by Mid-States. Kyle Railroad has acknowledged that while the authority to do so does exist because of the previous Rock Island bankruptcy, the likelihood of such an action is practically non-

existent due to quality of rail business currently on the line and the new businesses on this line that are in the planning stages.

The potential for another acquisition project of a very important Kansas short line rail property (similar to the Watco Companies, Inc. acquisition of the Central Kansas Railway in 2001) should be taken into account by KDOT and the Kansas Legislature when considering whether or not to reauthorize the Program.

### 5.2.3 Impact of Program on Avoidance or Delay of Short Line Railroad Abandonments

As was noted in Section 5.2, the one case in which the Program can be specifically credited with the avoidance of an abandonment was the use of Program grant funds by the K&O to acquire the Central Kansas Railway. In the event there are future lines that are eventually abandoned, it could be assumed that the use of the Program funds postponed or delayed the eventual abandonment and allowed the shippers on that line the benefits of railroad service for some additional length of time.

The Program contracts between the short line railroad and KDOT require that the rail line receiving Program funding continue to be operated for 10 years following the completion of the rehabilitation project. In the event Program assistance to the short line railroad was in the form of a loan, the loan must be repaid. If the contract included a grant component, a pro rata share of the grant, based on the time the line remained in operation following the completion of the project, must be repaid to KDOT.

## 5.3 Neighboring States Rail Issues Affecting Kansas Short Line Rail Operations

There are rail activities in states adjacent to Kansas that are projected to have an influence on future Kansas short line railroad operations and short line freight flows. Because railroads are most efficient when moving commodities and products long distances, it is normal to expect that any rail transportation related activities in a particular area would have long distance impacts on rail transportation related operations in adjacent regions, including neighboring states. The information provided below was obtained through conversations with Railroad program staff in Kansas' neighboring states as well as from the interviews conducted (see Chapter 3) as a key element of this Study.

### Colorado –

In 1998, the Colorado Legislature instructed the Colorado Department of Transportation to purchase the 121 mile Towner Railroad Line in Southeastern Colorado from the Union Pacific Railroad. The purpose of the statute was to ensure the continued operation of rail service on the line by a financially responsible railroad operator. In December 1999, pursuant to agreement with the State of Colorado, the Towner Line was leased to and operated by the Colorado, Kansas & Pacific (CK&P) Railway Company. The operator went into default in 2001 and there is currently a new RFP in process to obtain a new operator for the line.

CDOT is currently in negotiations with V & S Railway Inc. to purchase the Towner Line. The final terms of the agreement may impact operations with the K&O. However, at this time the terms are not finalized, so we cannot specifically report on the potential impact.

In addition, the State of Colorado has just completed and released the findings of its study examining the public and private benefits and costs of improving certain railroad facilities and relocating through-freight trains to new facilities to the east of the Front Range. One of the benefits associated with this creation of a new north Class I rail line in eastern Colorado would be the opening of new markets, particularly for producers of grain in western Kansas. The results of the study indicate the public would receive a number of measurable benefits should the railroad relocation project move forward. In addition, 2 million dollars in federal funds have been made available for additional work on the next steps. Plans for this phase are on-going. More information can be found at <http://www.dot.state.co.us/RailroadStudy/default.asp>

#### Missouri –

There are capacity issues in Kansas City that will affect all rail lines leading there in terms of delays and congestion that will only increase in future years. Although there have been some improvements and recent projects that have helped alleviate some of this Kansas City congestion, it is doubtful that there will be more money dedicated for further projects of this nature and both UP and BNSF have stated they predict higher rail volumes for Kansas City in the near future. These increased Class I volumes in the Kansas City gateway could potentially have a negative impact on car turn around times and interchanges with the Class I railroads short line partners.

#### Nebraska –

BNSF has been abandoning or selling off portions of their line between Table Rock and Oxford Jct. in the southern part of Nebraska. This could possibly result in some additional truck traffic on highways in northern Kansas.

Also, transition of railroad operations should be monitored by Kansas DOT following the recent sale of the Nebraska Kansas Colorado Railnet, with property in the states of Nebraska, Colorado and Kansas to OmniTrax, which previously owned the central Kansas Railway (CKR) in Kansas.

#### Oklahoma –

The rail line from Blackwell, Oklahoma to Wellington, Kansas is currently without an operator. This 34-mile line, is split between Oklahoma and Kansas and does not have adequate business on the line to support it. The line could be considered a candidate for abandonment in both Oklahoma and Kansas. Due its lack of rail volume in recent years (217 carloads in 2002) the 18 miles of this railroad in Kansas would appear to be a candidate for abandonment.

## 5.4 Possible Future Short Line Rationalization/ Consolidation

Short line railroads would be expected to continue to abandon non-profitable Kansas rail line segments in the future. 413.3 miles of short line railroads in Kansas were abandoned in the 5-

year period between 2000 and 2004. There are currently 10.6 miles of short line railroad in Kansas for which an abandonment application has been filed with the Surface Transportation Board. Another 20.4 miles have been identified as “under study for abandonment”.

Four of the larger short line railroads in Kansas are subsidiaries of three of the largest and most successful short line railroad holding companies in North America. These holding companies have all been actively seeking additional rail properties in recent years. OmniTRAX (Nebraska Kansas and Colorado Railway), RailAmerica (Kyle Railroad), and Watco Companies (K&O Railroad and SK&O Railroad) have all made significant acquisitions in this geographical area of the U.S. in recent years and would all appear to be in a position to consider adding additional rail mileage to their networks in the event of future short line, or even Class I abandonments in Kansas and/or neighboring states.

Based on the Service Agreement entered into between K&O and KDOT as a result of the CKR acquisition, K&O contractually agreed to provide rail service to the lines from June 29, 2001 forward. K&O must get KDOT’s approval to abandon and 25% of abandonment proceeds go to KDOT.

The Class I railroads have indicated they anticipate that traffic will increase from 5 to 10 percent on a line that has been taken over by a short line. However, not all such ‘takeovers’ are, or continue to be, profitable. Therefore the possibility of abandonment will continue to exist.

Finally, there is potential future consolidation of the existing short line network in Kansas. The interviews of the short line railroads indicated that four short lines envisioned a scenario in which their short line railroad, or specific line segments, could be acquired by another short line company.

## 5.5 Possible Future Class I Rationalization

The interviews of the three Class I railroads conducted during this study did not reveal any immediate plans by any of the Class I railroads to rationalize their systems within the State of Kansas. However, all Class I railroads have an ongoing process of evaluating the profitability of their networks, especially those lines carrying less than 10 million gross ton miles per mile per year. Such Class I lines do exist within Kansas.

Looking at the Class I railroad industry as a whole in the United States and Canada, the picture is one of focusing investment in upgrading the capacity of mainlines through second and third tracks, signal and communications improvements, and expansion of major yards. The triple tracking of Union Pacific’s route across Nebraska is a prime example. This enables the railroad to carry the combined east-west intermodal traffic and the unit coal trains from the Powder River Basin totaling over 100 trains per day. BNSF is making a similar investment in their Transcon route between LA-Long Beach and Chicago, including the portion through Kansas. BNSF has invested close to \$100 million to expand and modernize the Argentine Yard in Kansas City, Kansas. Both the UP and BNSF have benefited from the Alameda Corridor project, a public/private undertaking connecting the ports of Los Angeles and Long Beach with their east-west mainlines and providing added capacity and yard facilities while eliminating dozens of highway grade crossings.

The “rationalization” process is continuing throughout the United States as Class I railroads continue to shed more secondary lines, either through sale or lease to short lines, or through abandonment. BNSF recently leased 171 miles on two branch lines in Montana to the

Yellowstone Valley Railroad of Watco. CSX is leasing 125 miles in Indiana and Illinois to the Paducah and Louisville Railway, and 43 miles in Indiana and Ohio to the Indiana Eastern. CSX, in the meantime, is boosting capital spending for new mainline capacity. Even Kansas City Southern is leasing five branch lines in four states to Watco. North of the border in Canada, Canadian Pacific has announced plans to abandon 412 miles of branch lines in Manitoba, Saskatchewan and Alberta. (Source-Trains, October and November 2005).

According to the American Association of State Transportation Officials (AASHTO) Freight Rail Bottom Line report of 2004 ([www.transportation.org/bottomline/overview.html](http://www.transportation.org/bottomline/overview.html)) “the Class I railroads currently are investing around \$2 billion annually for improvements above and beyond repair and maintenance. This is not sufficient to meet the needs of the base case scenario (maintaining the current railroad market share of the nations freight)...it means that freight rail will lose market share, thereby increasing transportation and highway system costs over the next 20 years.” With the limited availability of private financing, the railroads are focused on improvements to their main service lines where, for example, intermodal traffic is up over 10 percent in 2005 as compared to 2004. On such lines, returns on investment in the 20 percent range are common, and pay back the cost of borrowing.

## 6.0 ECONOMIC ANALYSIS

### 6.1 Earlier Economic Studies of Short Line Rail Program Benefits

Substantial research has been conducted over the past several years on the subject of short line railroad abandonment, the associated costs and benefits, and the role of the Kansas short line railroads in goods movement in Kansas.

For the most part, these studies have been carried out by researchers at Kansas State University.<sup>31</sup> These analyses attempt to model the economic impacts of the hypothetical abandonment of all short line railroads operating in the western two-thirds of Kansas. Utilizing the results of various interviews, as well as models of wheat transportation patterns and logistics, and also an econometric model of the impacts of truck travel on highway maintenance costs and highway safety in Kansas, the following conclusions were drawn.

- If the four shortlines serving the study area were abandoned, there would be a large diversion of wheat shipments from railroads to trucks, and traffic would increase beyond the capacity of county roads and highways.
- Transportation and handling costs of grain would increase, resulting in an income loss to Kansas farmers of \$20.5 million.
- Highway damage costs would increase in Kansas by an estimated \$57.8 million.

In addition to this research, KDOT has implemented its own benefit/cost methodology for evaluating applications to KDOT by the short line railroads for program funding. This methodology takes as a starting assumption that in the absence of the particular project, the particular short line railroad branch would be abandoned. Accordingly, the methodology includes expansive estimates of highway damage costs avoided, as well as transportation cost savings resulting from a shift of freight carried by the short line railroad to truck.

### 6.2 Economic Analysis Methodology

#### 6.2.1 Overall Approach and Basic Assumptions

The economic analysis of the current Kansas Short Line Loan Grant Program, which was initially authorized in 1999 and will require reauthorization this year in order to continue, is comprised of a number of distinct sub-components, which include:

1. Analysis of shipper cost savings due to operational (primarily speed) improvements brought about by individual rehabilitation projects.
2. Analysis of the shipper cost savings due to the Kansas & Oklahoma's acquisition of the Central Kansas Railway, which would otherwise have been abandoned. Had the CKR been abandoned, a large percentage of former users of the railroad would have shifted their transport of inbound and outbound goods to truck – generally a more costly transportation choice for those firms whose logistics patterns and location had previously

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<sup>31</sup> Economic Impacts of Railroad Abandonment on Rural Kansas Communities.

avored local rail transport. This is supported by the study's shipper interviews, which asked about the likelihood of using trucks in the event of abandonment of their railroad.

3. Analysis of the impacts of the Program on local economic activity, including employment and wage earnings. These local economic benefits are assumed in the economic model to result from shipper cost savings, which translate into direct and indirect increases in farm and other business income, wages and employment. In addition, information collected during the study indicates that rescuing the former CKR system from certain abandonment allowed some rail dependent short line customers to continue operation. According to our shipper surveys, a small but significant percentage of K&O customers (around 17 percent, it is estimated) say they would be forced to cease operation or relocate in the absence of the railroad. It is assumed that such business closures would have occurred in the absence of the purchase of the CKR by K&O.
4. Analysis of the public sector benefits of the Program, including lower highway maintenance costs due to more truck traffic had the CKR been abandoned, and State and local tax revenues associated with increased business and wage earnings, including sales and income tax revenues.

Underlying this organization of the economic impact assessment is the assumption that the economic benefits of individual rehabilitation projects are best evaluated conservatively, in terms of their operational improvements. This is in contrast with previous analyses methodologies (including the current KDOT project selection methodology), in which it is assumed that rehabilitation projects, by definition, prevent the short line railroad from being abandoned. In fact, the causes of short line railroad abandonment are complex, and include many factors in addition to the condition or operational performance of the railroad. Such factors include:

- density of traffic on the short line rail line
- macro economic conditions and export demand
- market behavior of the Class I Railroads
- truck versus rail prices
- changes in the logistics of transporting wheat to market, including the increased prevalence of Class I RR shuttle loader facilities
- increasing ownership of trucks by individual farmers and farm co-ops.

Accordingly, it is viewed in this analysis as incorrect to assume that the rehabilitation projects financed by the Program have by themselves been responsible for preventing the abandonment of these lines, or indeed, that the lines are in imminent danger of abandonment within, say, the next ten years. Such assumptions are believed to result in an overstatement of project benefits.

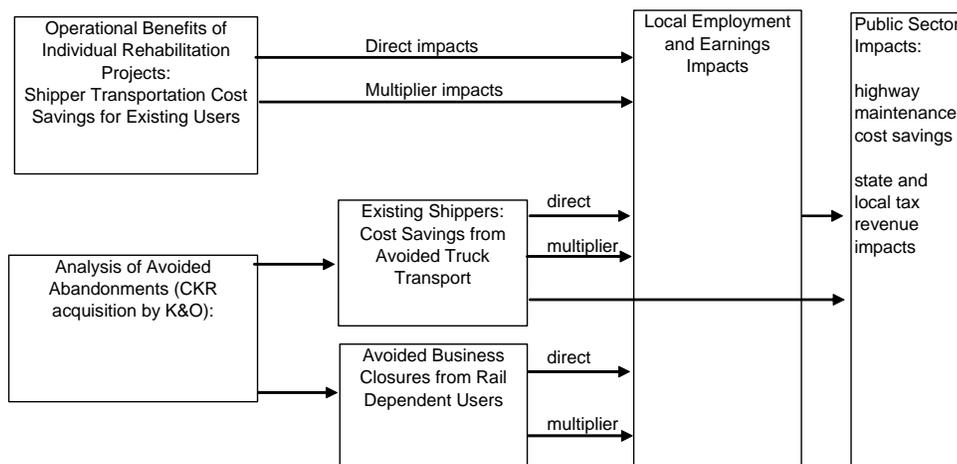
By contrast, the Program *unarguably* resulted, via a \$11.5 million phased grant to the Watco Company, in the continuation of short line rail road service on the former CKR system. Thus, the K&O system may be evaluated using many of the same approaches used in previous analysis, which assume abandonment of all short line railroads. These approaches include transport cost savings arising when rail-borne cargoes are *NOT* shifted to truck; as well as the avoidance of some business closures for rail customers unable to operate without short line railroad service.

### 6.2.2 Economic Model – Modeling Procedures

The basic logic of the entire economic model, including functional interrelationships, may be understood from the following flow chart. The model components and interrelationships are described, from left to right.

1. Operational benefits (shipper transport cost savings) of individual rehabilitation projects are estimated, for existing short line railroad users.
2. Impacts associated with preventing the abandonment of the CKR (via acquisition by K&O) are estimated. Two types of benefits are derived:
  - Transport cost savings for existing K&O shippers (who would otherwise have had to shift to higher cost truck transport, absent acquisition of the CKR by the K&O).
  - Economic benefits due to avoided business closures, which would likely have occurred in small but significant numbers, absent the acquisition of the CKR by the K&O.
3. Local employment, business earnings, and wage income benefits are estimated based on output of the previous two benefit elements. Direct and multiplier impacts are computed for all benefit categories in order to derive the total local economic impact
4. Public sector benefits are estimated, including:
  - highway maintenance cost savings resulting from the acquisition of the CKR system, which otherwise would have been abandoned. Acquisition of the line translated into a major savings in truck vehicle miles traveled on Kansas’ state and local roads, and corresponding maintenance cost savings.
  - State and local tax revenues from local employment and earnings impacts, including income and sales tax benefits.

These individual model components and their interrelationships are further described in subsequent sections.



## 6.3 Economic Benefits of Improved Short Line Service for Existing Customers – Rehabilitation Projects

In this section, the direct shipper benefits (shipper cost savings) are estimated for individual rehabilitation projects. Virtually all of these projects have entailed replacement of ties and ballast, and for the most part were intended to eliminate slow orders on deficient segments of the railroad, and to improve safety and reliability. These benefits accrue to those existing short line railroad customers who directly gain from the operational improvements, as measured in terms of speed increases and travel time improvements. Operational benefits are derived in the model based on estimated speed increases, and the resulting reductions in transportation costs. Pre and post rehabilitation project speeds have been provided by the railroads (Watco and the Kyle) to the consultants.

In fact, speed increases and transport time reductions are but one aspect of a more complex set of operational improvements to short line performance that result from rehabilitation projects. Other outcomes include better reliability (e.g., on time performance and car delivery time) and improved safety (e.g., fewer derailments). However, consistent and reliable data quantifying the before and after results for these projects does not allow for these other variables to be reliably measured. Accordingly, the speed improvements and transport time reductions may be viewed as partial “proxies” for other operational benefits, although this probably understates the total operational benefit.

### 6.3.1 Shipper Cost Savings for Existing Customers

As indicated, individual rehabilitation projects are assumed, conservatively, to result in operational improvements, which are measured and quantified in terms of speed increases and time savings on the railroad. These time savings are assumed further to result in operational cost savings which are “passed on” to shippers in the form of higher grain prices or, for non-agricultural commodities, in the form of lower rail tariff rates and thus, higher net business earnings.

In fact, some transportation cost savings would undoubtedly not be passed on, but rather would be retained by the railroads themselves, resulting in some increase in railroad net earnings. The extent to which transportation cost savings would be passed on to shippers versus retained by railroads is unpredictable. In essence, this problem is determined by the relative market power of the shippers and the railroads. Unlike Class I railroads, which exercise substantial market power, the short line railroads are more vulnerable from competition from the trucking industry. Thus, it is reasonable to assume that a substantial share of the savings is passed on to shippers. Indeed, wheat and other farm commodity prices are typically paid to producers *net of* transportation costs. Thus, the connection between prices received by farmers and farm-to-market transportation cost is immediate and direct.

#### Specific Analysis Assumptions

- Individual project analyses are based primarily on the data for rail car and train volumes across rehabilitated segments, as provided in individual grant applications to KDOT by the railroads.
- Time savings are based on operational input from the individual railroads concerning the before and after effects of the rehabilitation projects on average speeds across rehabilitated sections.

- Time savings are valued according to estimates of average variable operating expenses for short line railroads, expressed on a ton-hour basis.
- Ton hour savings are estimated by converting rail cars, as estimated in the individual grant applications, to tons, and then tons to ton-miles and ton-hours based on the length of the segments rehabilitated and speeds across the segment. Specifically, ton hour savings across rehabilitated segments are calculated pre and post improvement, according to the following conversion formula:
  - Annual tons across the rehabilitated section x miles of rehabilitated section ÷ average speed prior to the rehabilitation = pre-rehab ton hours
  - Annual tons across the rehabilitated section x miles of rehabilitated section ÷ average speed after the rehabilitation = post-rehab ton hours
  - Ton hour savings = pre rehab ton hours – post rehab ton hours

#### Unit Costs and Other Operational Data Assumptions

- Average payload per rail car is assumed to be 100 tons per car, based on United States Department of Agriculture, June 17, 2004 Grain Transportation Report.
- Average total variable cost per ton hour set at \$1.20, based on data from the Surface Transportation Board's Uniform Rail Cost System (URCS), Phase III, as reported in the Annual Data Profile of the American Short Line and Regional Railroad Industry, which reports a short line railroad variable operating cost per ton mile of 6 cents. Ton hour variable cost derived based on the following formula :
  - Average operating cost of 6 cents per ton mile x 20 mph = \$1.20
- 40 percent of average variable cost per railroad ton hour is assumed to be variable with railroad operating hours.

#### Results

Operational benefits, measured in terms of shipper cost savings, are summarized in Table 6-1 below. Overall, there were 35 individual projects, distributed among the different Short Line Railroads as follows. The number of projects is shown in parenthesis.

- Boothill and Western Railroad, Inc. (1)
- V & S Railway, Inc. (1)
- Kansas Southwestern Railways, L.L.C. (1)
- Kansas & Oklahoma Railroad (K&O) (10)
- Kyle Railroad Company (5)
- Nebraska Kansas Colorado RailNet (NKC) (1)
- South Kansas & Oklahoma (SKO) (13)
- Johnson County Airport Commission/Johnson County Industrial Airport (3)

**Table 6-1  
Operational Benefits – Shipper Cost Savings**

	<b>Total Operational Benefits - annual</b>	<b>Total Operational Benefits - 10 Year PV</b>	<b>Project Capital Cost</b>	<b>Benefit/Cost Ratio (based on operational improvements)</b>	<b>KDOT Benefit Cost Ratio (based on abandonment)</b>
Boothill & Western	\$9,720	\$78,838	\$616,370	0.13	4.13
V & S Railway Inc.	\$192,000	\$1,557,292	\$332,753	4.68	2.11
Kansas Southwestern Railways, L.L.C.	\$182,674	\$1,481,652	\$566,556	2.62	23.67
Kansas & Oklahoma (K & O)	\$6,296,234	\$51,068,101	\$5,642,831	9.05	18.46
Kyle Railroad Company	\$6,447,877	\$52,298,058	\$3,383,873	15.45	36.44
Nebraska Kansas Colorado RailNet (NKC)	\$473,628	\$3,841,548	\$632,997	6.07	12.91
South Kansas & Oklahoma (SKO)	\$5,401,777	\$43,813,252	\$5,218,566	8.40	54.68
Johnson County Airport Commission/Johnson County Industrial Airport	\$94,200	\$764,046	\$1,043,064	0.73	10.10
<b>Total</b>	<b>\$19,098,111</b>	<b>\$154,902,788</b>	<b>\$17,437,009</b>	<b>8.88</b>	<b>31.44</b>

The summary results of individual project analyses were “rolled up” by short line railroad by summing the benefits and costs of individual rehabilitation projects to arrive at subtotals for each railroad. Total operational benefits are shown on an annual (2004) basis, as well as on a ten year Present Value basis (2004 dollars). The ten year period was selected, as it is thought to be a reasonable estimate of the life cycle interval between road bed rehabilitation projects. The ten year Present Values are then compared with the capital costs of rehabilitation, and benefit-cost ratios for each railroad are computed.

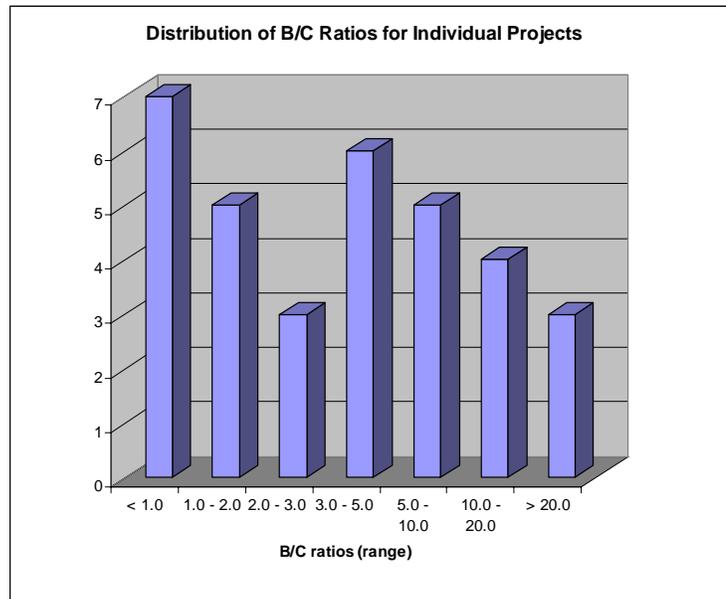
As seen, the ten year (direct) operational benefits associated with rehabilitation projects (\$154.9 million) are approximately 6.6 times the total capital cost of rehabilitation. Overall, the three major short line railroads (Kyle, K&O, SKO) which received the majority of the program funding all exhibit good aggregate economic benefits.

For comparison purposes, the Benefit-Cost ratios which were derived for each project application, using the KDOT application approval formula, are shown in red in Table 6-1. Because the KDOT B/C formula, which is based on the FRA’s LRFA Program B/C analysis guidelines, assumes that without the individual rehabilitation project, the railroad line would have been abandoned, the KDOT B/C ratios are on average substantially higher than the B/C ratios estimated for rehabilitation projects by the consultants.

The bar chart below, which shows the distribution of B/C ratios for individual rehabilitation projects, as derived by the consultant, indicates that while the overall performance of most rehabilitation projects has been good, there are a significant number of projects which score less than 1.0 (i.e., whose operational benefits do not outweigh their costs). Not surprisingly, these low performing projects tend to be those with low traffic densities. They are also the shortest lines in terms of route miles.

These results suggest that a more realistic economic evaluation process may be advisable if the program is reauthorized. While benefit cost is but one criterion for approving rehabilitation projects, benefit cost analysis should not unduly bias selection in favor of

projects which perform poorly, particularly in selecting projects with high costs and low traffic densities. Other selection criteria would include, for example, geographic balance, community preservation and development, or desire to nurture new emerging industries or technologies, such as ethanol production.



## 6.4 Economic Benefits Resulting from Avoidance of Short Line and Branch Line Abandonment - Acquisition of the Central Kansas Railroad

As noted previously, the economic benefits from continuing to operate the CKR system rather than abandoning it (as almost certainly would have occurred in the absence of the KDOT grant to the K&O) may be disaggregated into three parts: 1) the transport cost savings for existing customers/shippers, who would otherwise have had to transport goods to and from their facilities by truck; 2) highway maintenance cost savings resulting from reduced truck VMT; and 3) retention of businesses, and associated local wages and employment, for those (non-farm) businesses that would likely have ceased operation (or relocated to other areas or states). It is assumed that agricultural enterprises (either individual farms or farm coops) would not have ceased operation or moved, but would simply have proceeded to ship by truck.

### 6.4.1 Shipper Cost Savings for Existing Customers – Acquisition of the CKR

The transport (shipper) cost savings for existing shippers resulting from the acquisition of the CKR by K&O are derived from the cost differential between rail and truck transport. These differentials are most pronounced in the case of agricultural and other bulk commodities, which derived price benefits from more efficient transport, less handling, and in some cases, direct connectivity to grain shuttle loaders.

## Assumptions:

- Information on rail cars by commodity, obtained from Watco, are the basis for estimating transport cost savings, as described below.
- Rail cars by commodity are converted to rail car miles, based on various assumptions about the average rail trip distance for wheat versus other agricultural and non-agricultural commodities.
- Rail car miles are converted to rail ton miles, based on an assumption of an average hopper car payload of 100 tons.
- Rail cars for each commodity are converted to “truck equivalents”, assuming an average truck payload of 20 tons per truck.
- For each commodity which would have been shifted to truck from rail (due to abandonment of the line), truck ton miles are estimated based on estimated truck trip distances and compared with estimated rail ton miles. The transport costs associated with truck and rail movements are then compared, and the differential between truck and rail costs are assumed to represent the transport (shipper) cost savings.

## Derivation of Unit Costs and Other Operational Data Assumptions

- Assumes average length of line haul for short line railroads in the Central Region of the US of 59 miles, based on “Annual Data Profile of the American Short Line Railroad Association”.
- Estimated average rail distance for wheat shipped by rail in Kansas to grain elevators equals 140 miles, based on Kansas Grain Transportation, Kansas Agricultural Statistics Service, Table "Major Destinations by Rail, June 1, 2000-May 31, 2001.
- Assumes average truck payload of 20 tons, based on Washington State Freight Truck Study; and on Comprehensive Truck Size and Weight Study; FHWA Comprehensive Truck Size and Weight Study Summary Report.
- Assumes average truck trip of 67.9 miles for truck trips in Kansas, based on “2002 Vehicle Inventory and Use Survey”, US Census Bureau; and "Development of Trustworthy Intermodal Traffic Measurement", Yunlong Zhang, et al, Mississippi State University Department of Mathematics and Statistics.
- Average rail operating cost per ton mile = 6 cents per ton mile, from Association of American Short Line Railroads, Annual Data Profile.
- Average truck operating cost per ton mile = 12 cents per ton mile, from FHWA Comprehensive Truck Size and Weight Study, Phase I Synthesis, "Truck Costs and Size and Weight Regulations", Working Paper 7, February 1995, Batelle.

The last two assumptions – 6 cents per ton mile for rail and 12 cents per ton mile for truck – are consistent with the national transportation cost figures cited in Section 2.3.1, Table 2-4. There, national data from the U.S.DOT indicate an average truck operating cost of between 5 cents and 10 cents **per pound** (2000 dollars), and an average rail cost of between 1 and 3 cents **per pound**. Thus, truck costs for any given trip may be anywhere from 1.7 to 10 times the cost of rail. Using the per pound cost figures in Table 2-4, costs for rail transport can range from 2.5 cents per ton mile to 7.4 cents per ton mile for an average rail trip of around 890 miles. The costs per ton mile for truck and rail that are used in the benefits analysis are derived from more specific information, but fall well within the ranges of the national averages in Chapter 2.

## Results

The results of the transport cost savings analysis for the K&O acquisition of the CKR are shown in Table 6-2 below. On a single year basis (2004), total transportation cost savings for all commodity/industry sectors is about \$35 million. It is important to note that, based on the rail car data provided by Watco, wheat alone comprises about 45 percent of K&O traffic. On average, this would be a reasonable approximation of the share of benefits accruing to one single commodity – wheat. (Wheat is a lower share of rail car volume for the SK&O railroad). Together, wheat, corn, soy, and sorghum garner 58 percent of the total volume.

On a ten year Present Value basis, the total shipper cost savings are close to \$284 million – substantially greater than the \$11.5 million investment made by KDOT. (In a subsequent section, the public sector benefits of this and the other KDOT program spending are compared.) This figure represents a reasonable approximation of the direct boost to wheat farming income resulting from the acquisition, rather than the abandonment, of the CKR system.

**Table 6-2**  
**Avoided Abandonment – Shipper Cost Savings**

2004	K&O Rail Cars by Commodity	K&O Rail Tons by Commodity (2004)	K&O Rail Ton Miles by Commodity	Estimated Truck Ton Mile Equivalents	Shipper Transport Costs - Rail (6 cents/ton mile) rail operating expense/ton-mile = 6 cents	Shipper Transport Costs - Truck (12 cents/ton mile) truck operating expense/ton-mile = 12 cents	Transportation (Shipper) Cost Savings
2004 Agriculture Output							
Wheat	24,896	2,489,600	349,744,088	349,744,088	20,984,645	\$41,969,291	\$20,984,645
Soy	1,211	121,100	7,144,900	8,219,897	428,694	\$986,388	\$557,694
Sorghum	4,180	418,000	24,662,000	28,372,561	1,479,720	\$3,404,707	\$1,924,987
Corn	1,836	183,600	10,832,400	12,462,206	649,944	\$1,495,465	\$845,521
Chemicals/Petrol Products	18,044	1,804,400	106,459,600	122,477,151	6,387,576	\$14,697,258	\$8,309,682
Rock/Ballast/Other Minerals	512	51,200	3,020,800	3,475,299	181,248	\$417,036	\$235,788
Timber/Lumber	743	74,300	4,383,700	5,043,257	263,022	\$605,191	\$342,169
Metals	1,404	140,400	8,283,600	9,529,922	497,016	\$1,143,591	\$646,575
Other	2,512	251,200	14,820,800	17,050,687	889,248	\$2,046,082	\$1,156,834
Total	55,338	5,533,800	529,351,888	556,375,069	31,761,113	\$66,765,008	\$35,003,895
10 Year Present Value of Benefits							\$283,912,944

### 6.4.2 Avoided Business Closures from Acquisition of the CKR

Direct evidence and comprehensive data relating to the potential for business failures that might have followed from the abandonment of the CKR is less than ideal. However, certain information is available which can lead to a reasonable order of magnitude estimate of these effects.

First, the shipper surveys conducted as part of this study provide some evidence as to the probable behavior of K&O's customers, were the K&O (formerly the CKR) to be abandoned. Six of the 27 shippers interviewed indicated that they would go out of business. (Others

indicated they would relocate, although many of these would likely move to other Kansas locations.) Given that 34 total responses were received concerning this question, “going out of business” represented about a 17.5 percent response rate. At the same time, it is reasonable to assume that wheat and other grain producers (farmers and agricultural Co-ops) would not go out of business (at least not directly, although some small coops might eventually succumb if farmers began transporting by truck directly to larger elevators).

KDOT has provided a comprehensive list of current K&O rail customers to the consultant team. The list indicates approximately 70 shippers, not including small and mid-sized agricultural Co-op enterprises. Some of the major non-farm/farm Co-op customers include:

- Mudco
- PG&I
- R-Con
- Star Lumber
- Vulcan Chemicals
- Weyerhaeuser
- Wichita Iron
- Williams Underground

This information may be used to estimate the total number of employees and wage income which would have been lost to abandonment of the CKR. This is done by combining number of non-farm shippers with average enterprise sizes for manufacturing firms in Kansas. According to information from the US Census’ Statistics of U.S. Business (2001)<sup>32</sup> the average number of employees per manufacturing enterprise in Kansas (for firms with less than 500 employees, which would not be representative of rural manufacturers in Kansas) is 23 employees. These factors, combined with an assumption of an annual wage of \$20,000 per year (approximately equal to average hourly wage for full time manufacturing workers in Kansas of \$10 per hour) yields a total payroll for potentially closing firms, as follows:

- 70 firms x 23 employees per firm x .175 = @ 282 employees. At an average wage of \$20K, this translates into approximately \$ 5.64 million in lost yearly wages.

Furthermore, information from the US BEA Survey of Current Business<sup>33</sup>, indicates that employee compensation comprises about 58 percent of Gross State Product in Kansas. Using this as a proxy for the average share of firms’ earnings paid to workers, the total lost business earnings (which includes wages paid to workers) would equal about \$11.28 million per year.

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<sup>32</sup> U.S. Census Bureau, Statistics of U.S. Businesses: 2001: Manufacturing, Kansas, at [www.census.gov/eped.sush/2001/ks/KS31.HTM](http://www.census.gov/eped.sush/2001/ks/KS31.HTM)

<sup>33</sup> US Bureau of Economic Analysis, Survey of Current Business, Richard Beemiller and George Downey, “Gross State Product by Industry, 1977-96.

## 6.5 Total Economic Benefits – Rehabilitation Projects and CKR Acquisition

Total economic benefits, as estimated by the economic impact model, are summarized in Table 6-3 below. Following the logic flow chart in Section 6.1.2, the model takes the direct impacts for both rehabilitation projects and for the acquisition of the CKR (avoided abandonment) and applies various sector-specific wage and output multipliers to derive both direct and indirect business earnings, wage income, and employment benefits from the Program.<sup>34</sup>

As seen in Table 6-3 which follows, total direct and indirect (i.e., multiplier) benefits of all types (i.e., shipper cost savings from operational improvements, shipper cost savings and prevention of business closures by rescuing the CKR system from abandonment) on a single year basis equal about \$156 million in total business earnings, \$63.3 million in personal wage income, and about 3200 jobs (annual basis). The bulk of direct business earnings benefits are in the form of shipper cost savings. It is important to note that the business earnings and wage income benefits are *not* additive; rather, wage income benefits are a *subset* of total business earnings benefits. On a 10 year Present Value basis, the benefits amount to over \$1 billion in business earnings, and \$425 million in personal wage income.

On a 10 year Present Value basis, the benefits amount to over \$1 billion in business earnings, and \$425 million in personal wage income.

### 6.5.1 Shipper Cost Savings for Existing Customers

Shipper cost savings for existing customers were estimated previously and presented in Sections 6.2.1 and 6.3.1.

Section 6.2.1, which reports on shipper cost savings stemming from operational improvements from the 35 rehabilitation projects financed by KDOT, indicates an annual (2004) cost saving of about \$19 million, and a ten year (Present Value) savings of \$154.9 million.

Section 6.3.1, which reports on shipper cost savings from the “rescue” of the CKR system from abandonment, indicates an annual (2004) cost saving of about \$35 million, and \$284 million (Present Value) over the ten year period.

Combined, direct shipper transport cost savings for the entire Program (including rehabilitation projects and the acquisition of the soon-to-be abandoned CKR system), equal \$54.0 million for a single year, and \$437.5 million (Present Value) over the ten year period.

### 6.5.2 Local and State Income and Employment Impacts

The summary table above includes local and state income and employment impacts from the KDOT Loan-Grant Program. As indicated, when direct and multiplier effects are considered, annual employment benefits to local communities in Kansas from the Program amount to as much as \$63 million in wage income, and 3,200 jobs.

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<sup>34</sup> Multipliers derived from “The Kansas Input-Output Model: A Study in Economic Linkages”, Bulletin 655, Agricultural Experiment Station, Kansas State University.

**Table 6-3  
Direct And Indirect State And Local Income And Employment Benefits**

Source of Benefit	Direct Impacts			Indirect (Multiplier) Impacts			Total (Direct and Indirect) Impacts		
	Total Direct Business Earnings	Direct Wage Income	Direct Employment (net of truck drivers)	Total Indirect Business Earnings	Indirect Personal Wage Income	Indirect Employment	Business Earnings	Personal Wage Income	Employment
2004									
Shipper Cost Savings From Operational Improvements									
Agriculture	\$7,045,083	\$2,616,907	131	11,333,578	\$4,198,530	210	\$18,378,660	\$6,815,437	341
Manufacturing and Other Sectors	\$12,053,028	\$5,332,931	267	15,906,549	\$6,956,628	348	\$27,959,578	\$12,289,559	614
Total	\$19,098,111	\$7,949,839	397	27,240,127	\$11,155,158	558	\$46,338,238	\$19,104,997	955
Shipper Cost Savings From Avoided Abandonment (avoided rail to truck shift)									
Agriculture	\$24,312,847	\$8,229,166	411	40,040,593	\$14,685,257	734	\$64,353,440	\$22,914,423	1146
Manufacturing and Other Sectors	\$10,691,048	\$4,851,273	243	12,827,424	\$5,585,998	279	\$23,518,472	\$10,437,271	522
Total	\$35,003,895	\$13,080,439	654	52,868,017	\$20,271,255	1014	\$87,871,912	\$33,351,694	1668
Total, Shipper Savings (2004)	\$54,102,006	\$21,030,278	1052	80,108,143	\$31,426,413	1,571	\$134,210,149	\$52,456,690	2,623
Avoided Non-Agricultural Business Closures	\$11,270,000	\$5,635,000	282	10,403,337	\$5,201,669	260	\$21,673,337	\$10,836,669	542
Total, All Impacts (2004)	\$65,372,006	\$26,665,278	1,333	\$90,511,480	\$36,628,081	1,831	\$155,883,486	\$63,293,359	3,165
10 Year Present Value									
Total, All Impacts (10 year PV)	\$438,815,732	\$170,574,390	n.a.	649,748,802	254,896,359	n.a.	1,088,564,534	425,470,749	n.a.

\* Includes earnings distributed to wage earners, profits, retained earnings

Employment effects are *net of* increased employment associated with additional demand for truck transport, which would have occurred had the CKR been abandoned. In the case of employment and income effects from the CKR acquisition, the analysis estimates that approximately 60 additional truck drivers would be required to meet the additional truck demand. These 60 additional employees are deducted from the direct employment and wage income benefit totals.

## 6.6 Impacts by Industry Sector

The distribution of benefits by agricultural and non-agricultural sectors may be approximated based on the detailed commodity data provided by the Watco-owned railroads. The sectoral distribution of direct benefits was included in previous tables. Table 6-4 shows the dollar amounts and percentage breakdown of *direct* benefits across industry sectors.

**Table 6-4**  
**Direct Benefits Across Industry Sectors**

Sector	Shipper Cost Savings (Millions) (Operational Improvements)	Shipper Cost Savings (Avoided Abandonment – K&O System)	Avoided Business Closures	Total, All Direct Private Benefits
Agriculture (Total)	\$7.0	\$24.3	--	\$31.3 (48%)
Wheat	\$5.1	\$21.0	--	\$26.1 (40%)
Other Agriculture	\$1.9	\$ 3.3	--	\$ 5.2 (8.0%)
Chemical/Petrol	\$3.2	\$ 8.3	--	--
Rock/Ballast/Minerals	\$4.7	\$ 0.2	--	--
Wood Products	\$0.2	\$ 0.3	--	--
Metal	\$0.5	\$ 0.6	--	--
Other Non-Agriculture	\$3.5	\$1.2	--	--
Total Non-Agriculture	\$11.9	\$10.7	\$11.3	\$33.9 (52.0%)
Total	\$18.9	\$35.0	\$11.3	\$65.2

It is important to note that the distributional breakdown of benefits for indirect impacts (i.e., multiplier impacts) is difficult to estimate in the absence of detailed input-output inter-industry transaction matrices. However, it is reasonable to assume that approximately half of all indirect benefits accrue to households in the form of increased wage income. The remainder of indirect benefits is distributed in large proportion to firms that supply goods and services to agriculture, such as producers of farm equipment, agricultural fertilizer and feed, fuel distributors, and corn producers, who provide substantial input to the livestock production regions of western Kansas.

## 6.7 Public Sector Benefits

For this analysis, public sector benefits are assumed to include two components: 1) highway maintenance cost savings, which are a combination of state and local spending; and state and local income and sales tax levies, which would otherwise have not been earned in the absence of the Loan/Grant program.

In the case of highway cost savings, while a substantial proportion of these savings would occur on interstate and other NHS system roads, which are substantially funded by federal

gasoline taxes, these federal highway funds represent an opportunity cost to the state, so the benefits may be assumed to accrue to the State of Kansas.

### 6.7.1 Highway Rehab/Maintenance Cost Savings

Previous studies of the potential economic consequences of short line railroad abandonment in Kansas (i.e., the earlier studies of Kansas State University) have largely focused on the increased highway maintenance costs that would occur, should freight now carried by the railroads be shifted to truck. For purposes of this analysis, a more straightforward and simple approach to estimation of these impacts has been employed. In this case, the focus is on the reduction (the avoided increase) in truck VMT resulting from the acquisition of the CKR system by the K&O.

Specifically, highway maintenance cost savings are estimated by applying an average maintenance cost per truck mile from definitive FHWA sources to estimates of truck VMT that would be incurred had the CKR system been abandoned.

The analysis draws upon the same information, in terms of (avoided) truck ton miles, as was presented earlier in Section 6.3.1. The cost savings estimates assume an average highway maintenance cost per truck ton mile of \$0.00265. This is derived utilizing information from the Federal Highway Administration.<sup>35</sup>

As seen in Table 6-5, highway maintenance and rehabilitation cost savings are estimated to equal \$1.47 million per year, or \$12.0 million Present Value over a ten year period.

**Table 6-5**  
**Highway Maintenance Cost Savings**

	<b>K&amp;O Rail Cars by Commodity</b>	<b>K&amp;O Rail Tons by Commodity (2004)</b>	<b>K&amp;O Rail Ton Miles by Commodity</b>	<b>Estimated Truck Ton Mile Equivalents</b>	<b>Highway Maintenance Cost Savings (public sector costs) @ \$0.00265/ton mile***</b>
2004					
2004 Agriculture Output					
Wheat	24,896	2,489,600	349,744,088	349,744,088	\$926,822
Soy	1,211	121,100	7,144,900	8,219,897	\$21,783
Sorghum	4,180	418,000	24,662,000	28,372,561	\$75,187
Corn	1,836	183,600	10,832,400	12,462,206	\$33,025
Chemicals/Petrol Products	18,044	1,804,400	106,459,600	122,477,151	\$324,564
Rock/Ballast/Other Minerals	512	51,200	3,020,800	3,475,299	\$9,210
Timber/Lumber	743	74,300	4,383,700	5,043,257	\$13,365
Metals	1,404	140,400	8,283,600	9,529,922	\$25,254
Other	2,512	251,200	14,820,800	17,050,687	\$45,184
<b>Total</b>	<b>55,338</b>	<b>5,533,800</b>	<b>529,351,888</b>	<b>556,375,069</b>	<b>\$1,474,394</b>
10 Year Present Value of Benefits					\$11,958,656

<sup>35</sup> U.S. Federal Highway Administration, 2000 FHWA Federal Highway Cost Allocation Study, Summary Report.

## 6.7.2 State and Local Tax Revenues

State and local tax revenue benefits are estimated here based on the additional economic earnings, personal wage income and retail sales associated with the state and local benefits assessment.

Estimated tax revenues are summarized in Table 6-6 below. As seen in Table 6-6, state income tax benefits equal \$2.2 million per year; state sales tax benefits equal \$1.2 million per year. On a 10 year Present Value Basis, state tax benefits for sales and income taxes combined equal approximately \$22.8 million. The 10 year Present Value of local tax benefits equals \$8.9 million.

State tax benefits do not include additional motor fuels taxes that would have been collected had the CKR system been abandoned. These collections would have resulted from the additional truck VMT associated with that outcome.

**Table 6-6**  
**Total (Direct and Indirect) Impacts**

2004	Business Earnings	Personal Wage Income	Estimated State Income Tax (3.5%)	Estimated Retail Spending	Estimated Retail Sales Tax	
					State	Local
Shipper Cost Savings From Operational Improvements						
Total	\$46,338,238	\$19,104,997	\$668,675	\$6,686,749	\$354,398	\$401,205
Shipper Cost Savings From Avoided Abandonment (avoided rail to truck shift)	\$87,871,912	\$33,351,694	\$1,167,309	\$11,673,093	\$618,674	\$700,386
Total, Shipper Savings (2004)	\$134,210,149	\$52,456,690	\$1,835,984	\$18,359,842	\$973,072	\$1,101,590
Avoided Non-Agricultural Business Closures	\$21,673,337	\$10,836,669	\$379,283	\$3,792,834	\$201,020	\$227,570
Total, All Impacts (2004)	\$155,883,486	\$63,293,359	\$2,215,268	\$22,152,676	\$1,174,092	\$1,329,161
10 Year Present Value	1,088,564,534	425,470,749	\$14,891,476	\$148,914,762	\$7,892,483	\$8,934,886

\* Includes earnings distributed to wage earners, profits, retained earnings

### Assumptions

- The Kansas State income tax has several brackets. The lowest bracket, applicable to incomes up to \$30,000, is 3.5 percent.
- Kansas' State retail sales tax rate is 5.3 percent.
- Local sales tax rates vary from locale to locale, but average about 6 percent for all local governments.
- Based on US Bureau of Labor Statistics data, taxable retail spending in Kansas is about 35 percent of income.<sup>36</sup>

<sup>36</sup> U.S. Bureau of Labor Statistics, Consumer Expenditure Survey, 2000-2001.

## 6.8 Economic Impacts of Future Rail Program Business Model Options

In this section, we consider the potential economic costs and benefits of three different Program reauthorization scenarios:

- Scenario 1: No reauthorization.
- Scenario 2: Reauthorization at current funding levels (about \$3 million per year), with most Program expenditures focused (as before) on continued rehabilitation of mainline track.
- Scenario 3: Enhanced Funding - Reauthorization at approximately twice the current funding level, with half devoted to continued rehabilitation of mainline track, and a second tier of approximately the same annual amounts devoted to rail replacement and structure improvements to upgrade load bearing capacity to 286,000 lbs in selected locations, and possibly also for equipment acquisition.

**Scenario 1 – No Reauthorization – Limited Funding Level:** If the Program is not reauthorized, there could continue to be some residual funds available, derived from the short line railroads' payback of principal on Program loans currently outstanding (estimated to be between \$1 million and \$3 million).

Without specific information about precisely which rehabilitation projects would be undertaken in the future, it is nevertheless reasonable to assume that the past rehabilitation program is representative of the future program. Thus, the costs (i.e., the foregone benefits of not reauthorizing the program) may be extrapolated directly from the previous program analysis, as follows:

- Direct Shipper Cost Savings (i.e., Transportation Cost Savings) from improved efficiencies of about \$20 million per year (assuming no change in current traffic levels on the short line railroad system) that would not be achieved;
- About \$46 million per year in direct and indirect business earnings, of which \$19 million would be wage income (assuming operational savings are passed on to shippers) that would be lost;
- \$1.4 million per year in State taxes, and another \$0.8 million in local taxes from sales taxes not paid.

These estimates assume no change in rail-truck mode split as a result of Program-funded rehabilitation projects, and also assume that short line railroad abandonments would *not* be accelerated in the absence of the program. These assumptions are predicated on the satisfaction expressed in our interviews by most short line railroad customers with the current short line railroad service, as well as current short line management and marketing practices. Whether customer satisfaction would be significantly degraded without the benefits of continued rail rehabilitation is unknown.

While these assumptions are useful for assessment of future scenarios, it hardly assures that shipper volumes will not decline, or that abandonment will not occur at some time in the future. However, as noted previously, there are many factors that contribute to short line railroad abandonment, in addition to speed and even reliability of operations.

It should be noted that, as the Program has evolved into primarily a loan (as opposed to a pure grant) program, KDOT will continue to have some residual program funding after expiration. However, with a relatively small capitalization of about \$8.6 million (the total volume of loans issued by KDOT), this will limit the flexibility and size of any future loans.

**Scenario 2 – Reauthorization at Current Funding Levels:** Although a comprehensive inventory of short line railroad capital needs in Kansas is not currently available in detail, it is reasonable to assume that there remains more than enough rehabilitation needs to fully absorb the \$3 million in funding per year.

The benefits of Program reauthorization are implicit in the Scenario above, which indicates the “foregone” benefits from failure to reauthorize, and thus failure to continue the short line rehabilitation program begun under the previous Program.

Needless to say, in order to maintain the “purchasing power” of a reauthorized program, some adjustment for past and anticipated future inflation would be required. An average “mid-year” adjustment factor would be sufficient to maintain the program in constant dollars. For example, anticipating a 3 percent annual inflation in rail costs per year over a 6-year program would result in an average annual program level of about \$3.3 million. Failure to adjust for inflation would result in a real decline in the Program of about 9 percent, assuming 3 percent yearly rail cost inflation.

**Scenario 3 – Enhanced Funding:** The current Program does not cover a number of critical short line investments that our interviews determined would result in key operational improvements. It has been proposed elsewhere in this Report that one of the capital improvement programs that should be considered for funding as part of an enhanced program would be the upgrade of track/rail and structures on selected sections to accommodate 286,000-lb railcars, as compared to the 263,000 (or less) which characterize most short line railroads. Selected line segments would benefit from these line and structure upgrades. The heavier 286,000-lb. freight cars have become the standard for the Class I industry – particularly for unit train service which the Class I Railroads now virtually require for movement of grain and coal.

Where volumes are sufficient on short line railroads to justify the investment to upgrade to 286,000-lb capability, significant economic benefits may be incurred, including:

- Increased operating efficiency and lower marginal costs per ton mile for short line railroad operations.
- Improved interconnectivity between the Short Line railroads and the Class I Railroads, whereby short lines may be able to assemble and move loaded 286,000 car sections to major Class I sites, where the Class I Railroads can assemble 100 car or more unit trains for long distance transport to ports or other major rail facilities. This significantly reduces handling costs, and improves the direct market reach of farmers and farm Co-ops to intermediate and final markets.
- Improved shuttle loader efficiencies across the railroad network.

While specific information have yet to be developed on where such upgrades would be merited, and what types and volumes of freight would be transported via the larger cars, previous research has estimated significant marginal cost savings from upgrade of the rail from 263,000 to 286,000-lb capability. As has been stated earlier in the report, while general information has been collected, a detailed inventory of Kansas short line rail weights, rail age

and structure ratings is not currently available. It is clear that much of the short line mileage has rail weights less than 100 pounds and lacks welded rail. These two factors make use of 286,000 pound cars very problematic. In particular, it has been found that:

- Crew costs decrease by more than 10 percent.
- Fuel costs decrease by 2.6 percent.
- Car maintenance costs decrease by 10.5 percent (fewer cars results in greater economies of scale in maintenance)
- Overall, total transport costs fall by about 2.1 percent.<sup>37</sup>

On the downside, it should be added that upgrade to heavier cars has implications on the maintenance cost side. As wheel loads increase, track maintenance expenses increase and the ability of a given rail weight, ballast depth, and tie configuration to handle prolonged rail traffic decreases. Moreover, the ability of a given bridge to handle prolonged rail traffic also decreases as wheel loads increase.

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<sup>37</sup> North Dakota Strategic Freight Analysis, Item IV. Heavier Loading Rail Cars, Upper Great Plains Transportation Institute, North Dakota State University, Fargo, North Dakota, prepared by John Bitzan and Denver Tolliver, October 2001.

## 7.0 PUBLIC INVOLVEMENT

Chapter 3 identified the significant amount of Program-user involvement in this Study through the interviewing of short line railroads, Class I railroads, shippers utilizing Kansas' short line railroads as well as other individuals representing chambers of commerce, port authorities and regional councils of government.

In addition to those interviews, KDOT sponsored two public information Open House meetings in August, 2005 to allow members of the general public to obtain information about the progress of this study as well as to learn about the Program in general.

The Open Houses were held in Phillipsburg on August 2 and in Wichita on August 3. KDOT's Bureau of Public Involvement prepared and released a Press Release in July announcing the meetings.

Both sessions were conducted between 3 p.m. and 7 p.m. There was a presentation made by the consultant's Project Manager at 4 p.m. and 6 p.m. at each location followed by questions and answers. There were also display boards, including maps and graphics in addition to handouts of the presentation. KDOT Rail Affairs Unit staff was present at both meetings.

Twenty-two individuals attended the Phillipsburg meeting and there were six individuals that participated in the Wichita meeting.

Appendix D contains a copy of the Open House presentation and also copies of the sign-in sheets from both Phillipsburg and Wichita meetings. Also included in Appendix D are copies of written comment sheets filled out by individuals attending the Open House meetings.

## 8.0 CONCLUSIONS AND RECOMMENDATIONS

### 8.1 Conclusions

**The Kansas Short Line Loan/Grant Program has been a good investment of State dollars, and the Program should be continued after the final year of funding in fiscal year 2007.**

**The economic analysis of Program expenditures from 2000 – 2005 has identified significant benefits to both the public and private sectors. For example, the combined ten year present value of public sector benefits for state and local tax revenues and highway maintenance cost savings is \$43.7 million. The combined ten year present value of private sector benefits, both direct and indirect, from rehabilitation projects and acquisition of the CKR by the K&O, is over \$1 billion in business earnings and \$425 million in personal wage income.**

**Also, the Class I railroads, are unanimous in their support of the Program and the financial support the Program provides to the Class I railroads key transportation partners, the short line railroads. Healthy short line railroads are absolutely vital to the Class I railroads, which are the lifeline for moving more than 330 million tons of agricultural products, coal, automobiles, aircraft parts, food products, sand/gravel/cement, and other commodities within and through the State of Kansas each year.**

**Significant infrastructure requirements, rehabilitation of track and structures, still face the Kansas short line railroads in order for the short lines to be able to provide safe, dependable, and efficient service to the hundreds of Kansas businesses that rely on short line railroads to transport their products and goods. The magnitude of this infrastructure need is sufficient to warrant a multi-year extension of this effective Program.**

#### 8.1.1 Economic Analysis

The economic analysis indicates that economic benefits substantially exceeded the Program costs, both in total and in terms of public sector expenditures.

First, under a set of *conservative* assumptions about the impact of the Program on short line railroad operations and abandonments, it was found that the 35 rehabilitation projects supported by the Program delivered direct benefits in excess of costs by a factor of more than six times, when evaluated *conservatively* in terms of operational (i.e., speed) improvements.

Second, the other major Program expenditure – the grant to the K&O for acquisition of the soon-to-be abandoned Central Kansas Railroad – was found to have leveraged *very* substantial benefits to shippers and the local private Kansas economy including an estimated \$46 million in direct business earnings, \$19 million in yearly personal wage income, and about 936 jobs (annual basis). The bulk of direct business earnings benefits are in the form of shipper cost savings, which are internalized by farmers and other shippers through lower business costs and higher business earnings.

When direct and indirect (multiplier) benefits are included for all Program expenditures (rehabilitation projects and acquisition of the CKR by K&O), private sector economic benefits were found to have amounted to over \$1 billion in business earnings, of which about \$425 million were disbursed in the form of personal wage income. These benefits are far in excess of Program costs.

In terms of public sector benefits (measured only in terms of highway maintenance cost savings and state and local tax revenues), combined public sector benefits have amounted to about \$4 million on an annual basis; on a ten year Present Value basis, combined public sector benefits amount to nearly \$29 million. This is well in excess of the grant component of the Program. Of course, the \$29 million represents a narrow definition of public sector benefits, as it is restricted to public budgetary outlays and reflects agency cost-revenue considerations. In a broader sense, the wages and employment benefits derived from the Program, delivered to the citizens of Kansas, are far in excess of Program spending.

### 8.1.2 Other Findings

Short line railroads do currently and should continue in the future to provide an essential element of freight transportation movement within the State. As freight movement nationwide is expected to nearly double over the next twenty years, short line railroads will be performing a growing role in the movement of freight. This national experience will also occur in Kansas.

The Class I railroads are consolidating their networks to focus on high volume, high speed mainlines moving unit trains long distances. The Class I railroads acknowledge that the short lines do a better job of handling carload products and should continue to expand that business. Also acknowledged by the Class I railroads are the superior customer service and customer relationships that short lines provide. New business development often occurs more easily on a short line than it might on a Class I high density, high-speed mainline. "It is not desirable to add curb cuts on an Interstate highway" is the analogy used by one Class I railroad representative meaning that adding sidings to a high speed/high volume mainline can cause serious service delays. Also, short line railroads continue to provide more switching for the Class I railroads in the larger cities.

Shuttle train elevators have had a role in changing the way grain is transported; however, the grain elevators and the short line railroads on which they are located continue to transport a significant amount of grain. The theory that the shuttle train loaders will capture all of the grain business from the short lines has not been validated during the railroad and shipper interviews conducted as a part of this study.

The increasing use of 286,000 pound rail car equipment by the Class I railroads is expected to be focused more on grain hauling than on other commodities, at least in the immediate future. The overall infrastructure of the short line railroads, both track and bridges/structures is not adequate to handle this larger equipment. The Program in the future should consider limited, targeted financial assistance in regard to the 286,000 car issue for those line segments requiring the heavier cars to serve major users.

There will continue to be rationalization of the Class I railroads both nationally and within Kansas. The BNSF and UP in 2005 have abandonment applications pending in Kansas for 123.2 miles of railroad on five different segments of track. Those two railroads abandoned 231.3 miles in Kansas in the five-year period between 2000 and 2004. It is expected that as the

Class I railroads continue to move more toward a business plan focusing on high speed, high density mainlines, some additional abandonments or sales will inevitably occur.

## 8.2 Recommendations

### 8.2.1 Program Continuation

The Program has focused over the past six years on rehabilitation projects on short line mainlines. This was the emphasis of the legislation and of the *Transportation 2000 Study Group* which recommended the Program “assist Kansas short line railroads with track rehabilitation”. Throughout the course of the program, the majority of funding has been used for ties, ballast and related surfacing and lining. Occasionally the projects have included switches and crossovers and some additional yard track improvements when efficiencies could be demonstrated from the benefit/cost analysis of the proposed project.

Program funds were also used for the acquisition of the Central Kansas Railway properties by the K&O Railroad. The economic analysis related to the utilization of Program grants to the K&O Railroad showed a very positive benefit/cost ratio for the use of these public funds. Also, there was overwhelming support in the interview process for the KDOT decision to use these grant funds to save these hundreds of miles of critical short line railroad track in central Kansas from abandonment.

This study has confirmed that the Program has been an effective use of State funds. There also continues to be a considerable amount of unmet need in regard to assisting Kansas’ short line railroads in the effort to rehabilitate their infrastructure. This unmet need is similar to the needs of the State of Kansas regarding its state highway system infrastructure. State funding of the highway network supports the infrastructure used by the motor carrier industry. In the same fashion, State funding of the Program has supported short line railroad infrastructure to maintain modal choices for shippers.

***It is recommended that KDOT conduct a “Short Line Infrastructure Inventory Assessment” to identify the magnitude of the infrastructure needs of the Kansas short line railroads. This analysis should evaluate track, ties, ballast and structures. The results would allow KDOT to develop a plan to guide future Program fund distribution.***

***The Program should be continued beyond the current statutory deadline of the end of fiscal year 2007. As was originally envisioned, the Program should continue to emphasize “assisting Kansas short line railroads with track rehabilitation”. In addition, there should be consideration for additional program eligibility as described in the recommendation below***

### 8.2.2 Project Eligibility and Criteria

The Program to date has emphasized projects that rehabilitate short line railroad mainline tracks. There have also been some projects where turnouts and crossovers have been added in addition to small amounts of new track construction to improve the effectiveness and efficiency of short line rail operations. All of these projects have undergone the benefit/cost analysis required in the guidelines of the KDOT program. Such analyses are very appropriate in that public funds are being used in either the loan or grant portion of the Program.

For all of the additional types of projects mentioned below, ***it is recommended that in each project category, KDOT develop relevant criteria that would be applied to the new areas of project eligibility.*** In every case, a project should show that the benefits of using public funds will exceed the public costs of the project being proposed.

A more conservative benefit-cost (B/C) methodology is also proposed. Currently, the KDOT B/C methodology assumes that for any rehabilitation project the particular short line railroad would be abandoned absent the project. While a constant decline of the physical condition of the railroads will lead to abandonment, individual rehabilitation projects have a more narrow purpose and should be evaluated in this way. In the past, the projects have typically been for the replacement of ties and ballast on specific sections where slow orders are largely in place, and which inhibit railroad function, speed, reliability, safety, and on time performance. Moreover, causes of short line railroad abandonment are complex, so that the individual project is but one of many factors in long term abandonment prospects. Even utilizing this conservative approach, most rehabilitation projects (although not all) were found to have B/C ratios well in excess of 1.0.

It is proposed that in the future, the benefit-cost methodology focus on the specific goal and purpose of the project. In the case of the evaluation performed by the consultants, this evaluation focused on the speed improvements, which deliver benefit to shippers in terms of transportation cost savings. The cost savings are largely passed on to the shippers themselves, particularly for shippers of wheat and other grains. It is proposed that this methodology be continued in the future. As the program takes on new purposes in the future, such as the upgrade of some sections to 286,000 pound rail car capability, that criteria be incorporated into the KDOT B/C methodology to specifically reflect this.

The study identified several additional categories that should be considered for project eligibility. The issue of 286,000 pound rail car capability was identified. There is enough of a need to provide specific key grain shipping corridors with 286,000 pound capability that the State should consider adding this project category to the list of eligible projects in a future Program.

Railroad car availability was also identified as a key shortcoming by many short lines and shippers alike. The State of Kansas is constitutionally prohibited from acquiring rail equipment. Therefore, KDOT cannot provide this type of short line assistance, as does the Washington Department of Transportation. However, it may be possible for the port authorities within the state that already are involved in various elements of support for Kansas short line railroads to acquire such equipment to be made available to short lines providing rail service to their geographic areas.

The ability for rail sidings (often referred to as 'house tracks') to be improved utilizing Program funding was also recommended by many shippers and short lines during the interviews. It was suggested that agreements could be reached whereby the existing partnership of the state and short line railroads could be expanded to include the shipper as a participant in the overall project. The ability to get loaded rail cars safely on to or off of industry sidings without derailment was often mentioned as an element of short line service reliability that could be enhanced. Safety was particularly emphasized when the handling of hazardous materials was involved.

Lastly, other forms of rail equipment, such as back-up locomotives and grain hopper car fleet availability, were identified as areas in which the Program eligibility could be expanded if the

appropriate benefit /cost analyses were conducted and positive results from those analyses confirmed that the project would be an effective use of public funding.

The following Policies/Strategies are recommended for KDOT's consideration:

***Additional project eligibility should be added to the Program.*** The precedent of completing projects other than traditional "rehabilitation" projects took place in June of 2001 when an agreement was reached between KDOT and Watco Companies for a Grant to the K&O for acquisition of the Central Kansas Railway. Additionally, projects such as turnouts, limited track construction, and rehabilitation of weigh scales have been funded by the program. ***It is recommended that KDOT Program guidelines include the flexibility to include the following additional project categories:***

- ***Structure replacement and other track infrastructure improvements for upgrading to handle 286,000 pound loads.***
- ***Upgrading/extending industrial sidings and "house tracks".***
- ***Acquisition of grain car fleets by partnering with Kansas port authorities.***
- ***Acquisition of back-up locomotive or other rail motive power.***

***All such additional projects should also be subject to the benefit/cost methodology test used to evaluate Program projects funded by KDOT.***

### 8.2.3 Program Funding

The study has determined sufficient effectiveness of the use of State dollars for assisting short line railroads with rehabilitation of their infrastructure to warrant the continuation of this Program.

The economic analysis element of the study has documented that very high levels of benefit have accrued to the public and shippers on those short lines participating in the Program projects. Therefore, the study recommends the following in regard to future Program funding:

***Funding Issues:***

- ***The amount of funding for the track rehabilitation element of the Program should be continued at \$3 million per year for another eight year period.***
- ***Re-instate a grant component to the Program. The program worked effectively in its early years and other states are providing grants effectively in their assistance to address the unmet needs of the short line railroad infrastructure in other states. Continue to include an appropriate requirement to repay a pro-rata share of any grant in the event of loss of rail service.***
- ***Additional funding, not to exceed \$3 million per year, should be considered to accomplish specific, stated objectives in the following areas:***
  - ***286,000 pound load capability on specified grain corridors.***
  - ***Industry siding upgrades and extensions.***
  - ***Acquisition of rail related equipment (rail cars and back-up locomotives).***

*These expenditures should be consistent with a pre-determined plan, as identified in the above Rail Plan update recommendation.*

- *Consideration should be given to expanding the existing partnership of State and short line railroads to include shippers. Such partnerships were requested by many shippers during the interviews conducted during this study. The ability to leverage additional funding would be consistent with the overall move in this decade to an expansion of public/private partnerships. These types of projects would be especially appropriate for the “industry siding” and “acquisition of rail related equipment” project categories noted above.*

#### 8.2.4 Program Administration by KDOT

The administration of the Program by KDOT was a point of discussion in the interviews conducted during the Study. There were several representatives of shippers and chambers of commerce that were not familiar enough with the Program to comment on KDOT's administration of the Program. However, those interviewed that had extensive familiarity with the Program were very complimentary of KDOT and its staff's administration of Program.

In reviewing various elements of the Program, there are areas that could be improved in order to make what is a very effective program even better. The study recommends the following items for KDOT's consideration:

##### *Project Documentation:*

- *The use of digital photos taken before and after the Program projects is an excellent documentation tool. However, the use of photos could be improved by taking the before and after photos at the exact same location. This would better document the significance of the improvement.*
- *Put the KDOT project number in a prominent location on the cover of the Application for Funds once the project has been approved.*
- *Several instances were noted in the applications where in Exhibit 6 – Timetable Speed, the language of 25 mph etc., was used when in fact the project was occurring on excepted or Class I track, which is limited to 10 mph.. Any slow orders that restrict speeds to less than 25 mph should be noted on all applications.*

##### *Application Process:*

- *Update the “Short Line Railroad Loan Guidelines” as appropriate to incorporate any changes that may be made to the program if it is re-authorized beyond fiscal year 2007. Attach a copy of these guidelines to the applications for Program funding.*
- *Revise the benefit/cost methodology. The current methodology assumes abandonment in every case. This is an overestimation of the result of a “do-nothing” scenario and should be revised to better reflect the reality of the situation.*

**Economic Evaluation:**

- *Revise the benefit/cost methodology used in the Application Process. Currently, the KDOT B/C methodology, which is based on FRA LRFA guidelines, assumes that, for any rehabilitation project, the particular short line railroad would be abandoned absent the project. While a constant decline of the physical condition of the railroads may eventually speed abandonment, causes of short line railroad abandonment are complex, so that the individual project is but one of many factors in long term abandonment prospects. Individual rehabilitation projects have a more narrow purpose and should be evaluated assuming a more conservative approach with regard to future abandonment of the line.*
- *In the past, rehabilitation projects have typically been for the replacement of ties and ballast on specific sections where slow orders are largely in place, and which inhibit railroad function, speed, reliability, safety, and on time performance. In focusing the benefit cost analyses on operational improvements (rather than abandonment,) most rehabilitation projects (although not all) were still found to have B/C ratios well in excess of 1.0. It is proposed that in the future, the benefit cost methodology focus on the specific goal and purpose of the project. In the case of the evaluation performed by the project team, this evaluation has focused on speed improvements, which deliver benefit to shippers in terms of transportation cost savings, which are largely passed on to the shippers themselves, particularly for shippers of wheat and other grains. It is proposed that this more conservative methodology be continued in the future to evaluate rehabilitation projects. In the event the Program takes on new purposes in the future, such as upgrading some sections of railroad to carry 286,000 pound loads, methodologies should be incorporated into the KDOT B/C methodology to specifically reflect new program objectives. Methodologies for assessing the benefits of 286,000 pound upgrade, for example, may be developed based on factors such as potential operating cost efficiencies, improved interlining with Class I railroad services, and potential for expanding the market reach of existing shippers.*

**State Rail Plan Update:**

- *KDOT's next update to the Kansas Rail Plan should include an analysis of the level of need for any possible expansion of the Program beyond the current \$3 million per year. This would apply to issues such as the 286,000 pound capability of the short line network, industry siding upgrades/extensions, and equipment acquisition (rail cars or back-up locomotives).*
- *Future Rail Plan updates should include an annual submittal of carload information by line segment by the Class III railroads. Such information is currently provided to the state by the Class I railroads on a system-wide basis. Class III information submitted by line segment would be valuable support information in the Program project selection process.*

**State Rail Advisory Committee:**

- *KDOT should re-convene its State Rail Advisory Board. This group should include representatives of the short line and Class I railroads and possibly shippers or members of trade/industry associations that have vital interests in rail transportation. The Advisory Board would provide KDOT Executive Management*

*and Rail Affairs Unit staff with guidance regarding rail issues affecting the state of Kansas. This Advisory Board would also bring about opportunities for better communication and co-operation between the short line and Class I railroads. This need was an often mentioned issue in the interviews conducted for this study.*

*It would also be a mechanism for KDOT to continue with its objective to be more open with its constituents regarding its programs.*

## APPENDIX A

INTERVIEW FORMS (SHORT LINE RAILROAD,  
SHIPPER, CLASS I RAILROAD, OTHER)

KDOT Rail Program, Short Line Railroad Interview Questions  
Questions

1. Are you familiar with the Kansas Short Line Rail Assistance Program?  
If so, there will be additional questions throughout this interview discussing various specifics about the Program. If not, do you have any questions regarding the program that I could answer at this time before proceeding with the interview?
2. Have you been a participant in the program at any point since its beginning in 1999? If so, there are more questions regarding the program near the end of this questionnaire.
3. If not, what are the reasons that your railroad has not participated?
  - a. Is there no need for the program for your short line?
  - b. Is there something about the program which discourages your participation?
  - c. Other – please specify
4. Under what circumstances would you participate in the future?
5. Please briefly describe the type of services your short line is engaged in. (i.e. shipper to destination, shipper to Class I, both, other)
6. What is the frequency of your service?
7. What are your major points for originating and terminating traffic?
8. What are your short line's Operating Characteristics by "Segment, or possibly sub-division" (i.e. Colby to Kanorado)
  - a. Gross ton-miles per year
  - b. Trains per Day (or Week)
  - c. Carloads per month/by commodity
  - d. Major customers, and volume of business with your major customers; in tonnage
9. What are the Infrastructure characteristics of your short line by "Segment, or possibly sub-division" (see above)
  - a. FRA Track Class
  - b. Jointed or welded rail
  - c. Rail Weight
  - d. Rail Age
  - e. Structure Sufficiency data (capable of handling 286,000 pound cars)

Can you return the information requested in this and the previous question by mail within the next two weeks?
10. Is your business constrained due to:
  - a. Slow speeds due to track/tie condition (please describe)
  - b. Bridges not capable of handling 286,000 pound rail cars (please describe)
  - c. Other (please describe)
11. Does your company make projections as to future growth in your business?
  - a. If so, are these by tonnage or # of carloads
  - b. If so, what is the basis for these projections?
  - c. What are your most recent projections?

12. Are there shippers in your area that could use your railroad but do not? How much would your business increase if those potential customers used your railroad?
13. What factors do you think may enter into local shipper's decisions to use truck (for those who use truck) as opposed to your short line rail service? Does the shipper himself or a third party make that decision?
14. The Class I's and trucking firms are creating partnerships for certain traffic moves. Do you have, or anticipate, similar partnerships with trucking companies and/or Class I railroads? If you do, what are these partnerships and what are the anticipated results? If you do not; please describe why not.
15. Are you aware of any utilization of trucks by any of your customers instead of using your rail service? If so how much of your potential business with that customer is going by truck?
16. What are the strengths of your short line?
17. What are your short line's weaknesses? How are you attempting to address these weaknesses?
18. Are there scenarios in which you could foresee the abandonment of your railroad, or specific line segments?
19. Are there scenarios in which you could foresee your short line, or specific line segments, being acquired by another short line company?
20. What would your customers do if your short line railroad, or specific line segments, were abandoned?
  - a. Switch all shipments to for hire-trucking firms
  - b. Purchase their own truck fleet
  - c. Move their business to another rail served location if possible.
  - d. Go out of business
  - e. Other?
21. What capital improvements to your railroad would be beneficial to continued rail operations? (please elaborate; in what ways would those improvements be beneficial?)
  - a. How are you currently financing infrastructure improvements to your railroad? Please identify by type (i.e. normalized maintenance, KDOT program, RRIF, others)
22. What other changes or improvements in your short line's service would you like to see that would benefit your customers? (please elaborate; in what ways would those improvements be beneficial to your customers?)
23. How would these improvements encourage your customers to make more extensive use of your short line rail services?
24. How does your railroad communicate with your shippers? (phone, e-mail, face-to-face contacts) How often? (daily, weekly, etc.)
25. How does your short line market its services to new customers?

26. Do you have direct connections to other short lines or Class I railroads?
  - a. If so, which ones?
  - b. How do these inter-connections support or hinder your operations? Please explain how they could be improved?
  - c. How do these inter-connections benefit your customers?
27. How have projects you have completed using the KDOT Short Line Loan/Grant program affected your operations? (i.e., increased speed, increased service frequency, etc.)
28. How have projects you have completed using the KDOT Short Line Loan/Grant program affected your service to customers?
29. Has your railroad experienced increased business since, and directly related to, your KDOT Short Line Loan/Grant project(s)?
30. Have derailments decreased since the completion of your KDOT Short Line Loan/Grant funded project(s)? If so, what has been the number (or percentage) of decreased derailments?
31. Are there future projects for which your short line would apply to a future KDOT Short Line Program? If so, please describe some of those projects and why they would be important. Are there other funding assistance programs that you might also be eligible for, or might apply for, in the future?
32. What improvements to the program would you recommend to KDOT and the Kansas State Legislature?
33. What are the positive aspects of how the state rail program is currently being administered by KDOT?
34. What changes, if any, in the administration of the state rail program would you recommend?

## KDOT Rail Program, Shipper Interviews

### Interview Questions

#### Questions

1. Were you familiar with the KDOT Short Line Loan/Grant Program prior to this interview? Are you aware of any improvements made by your short line Railroad as a result of funding from the KDOT Short Line Loan/Grant Program? Please specify. Do you know if such improvements were completed with funding from this Program?
2. Please briefly describe your type of business. What does your company produce? What raw materials and other products do you require? Where are your major markets, and (if applicable) where do you obtain raw materials and other products you use in your business.
3. Can you provide us with information on the tonnage or number of railcars and types of goods you transport in and out via your short line RR? Specifically, can you provide us with:
  - a. Inbound raw materials and outbound final product rail tons by type of commodity.
  - b. The origins and destinations of freight (e.g., to local or regional grain elevator, etc.)
  - c. Frequency of service provided by your short line RR

- d. Frequency of your inbound and outbound shipments.
  - e. Number of cars per week (month), inbound and outbound.
  - f. Type of rail cars used; i.e. flat cars, tank cars, covered hoppers, etc.
4. Assuming that your short line railroad continued to provide you with the same level of service as now, would you anticipate that volumes and types of shipments you make via your short line RR will change in the future (for example, would you anticipate increased or decreased volume, change in the mix of commodities, change in destinations)? Over what time frame would you anticipate these changes?
  5. In addition to your use of the short line railroad, do you also use trucks to ship some of your raw materials and final products? What share of your product is shipped via truck vs. rail?
  6. What factors enter into your decision to use short line RR vs. truck? Do you, as the shipper, or a third party (for example, a logistics firm or freight forwarder) select the mode of transport?
  7. What are the strengths and weaknesses of your short line RR? How does this help/hinder your ability to ship in a timely manner?
  8. Would you like to see more short line rail service? What would be the best frequency of short line service for your company? Is that more than you now receive? How would your business be affected if you had more frequent rail service?
  9. What would your business do if your short line RR were abandoned?
    - a. Switch all shipments to for hire-trucking firms
    - b. Purchase your own truck fleet
    - c. Move your business to another location if you could
    - d. Go out of business
    - e. Other (please specify)
  10. If your short line railroad were closed, how many trucks would you need to ship your products? How many trucks would be needed to ship in raw materials and other products?
  11. What other factors can you identify (either related to the railroad or other factors) that might cause you to switch your business from rail to trucking?
  12. Were the improvements made using Short Line Loan/Grant Program funds beneficial to the service provided by your short line railroad service? Please briefly explain why or why not.
  13. What future physical improvements to your railroad would be beneficial to your business? What other changes or improvements in your short line's service would you like to see, and that would benefit your business?
  14. What future improvements to your short line RR might encourage you to make more extensive use of their service?
  15. Do you have your own direct side track or do you use a common team (a common siding used by more than one shipper) track?
  16. If your business is a grain elevator, are you able to qualify for unit train rates? Also, are farm producers switching to larger elevators that can accommodate unit trains?

17. Does your short line consolidate grain cars into unit trains? If not, would you utilize such a service if it were available?
18. What are the positive aspects of how the state rail program is currently being administered by KDOT?
19. What changes, if any, in the administration of the state rail program would you recommend?

KDOT Rail Program, Class I Railroad Interview Questions

## Questions

1. Have you sold or leased any of your branch lines to short lines in Kansas in the last five years? If yes, what branch line(s) and to what short line railroad(s).
2. Are you familiar with the Kansas DOT's Short Line Rail Program? If not, is there another individual within your company that is familiar with the KDOT Short Line Program? Please elaborate on your knowledge of the program.
3. Have short line improvements made as a result of the KDOT Program's helped short line railroads to provide additional traffic to your railroad? If yes, please provide examples. Do you know if such improvements were made using funding from this Program?
4. Is the inability to handle 286,000 pound rail cars a problem affecting Kansas short lines? If so, is the problem more related to bridges and structures, or to track condition? Please elaborate. What do you feel are the long term impacts on Kansas short lines as they relate to 286,000 pound rail cars?
5. What interchange-related issues could be improved between your company and short lines in Kansas? If there are any, please elaborate.
6. Do you generally support Kansas' Program of support to its short line railroads? Please elaborate...if "yes," why...if "no," why not?
7. Has the Program been a good use of public funds for the State of Kansas? If so, would you recommend that the Program be continued and perhaps expanded? Please elaborate, if "yes,"...why...if "no," why not?
8. What changes to the Program would your company recommend?
9. Are you aware of any other state programs that promote the similar objective of improving a state's short line rail infrastructure? What is your opinion of the effectiveness of those programs?
10. Kansas' program does not currently allow for funds to make improvements to house tracks or team tracks. Is this an area of the program that should be revisited? (If "yes," why...if "no," why not?)
11. As the Class I railroads continue to evaluate the profitability of their networks, short line railroads may be required to provide Class I's with additional rail traffic. The KDOT Program has in recent years provided grants for the acquisition of a significant amount of mileage of a short line that was to be abandoned. Should the Program provide funding for the future acquisition of any Class I mileage that may be rationalized? (Please elaborate on both "yes" and "no" answers).
12. Is there any of your railroads' track within Kansas that may be subject to rationalization or abandonment within the near future (next 3 – 5 years)? If "yes" can you elaborate on those line segments?
13. Would a decision to eliminate any segment of your system be affected by the potential for a short line railroad to continue to provide service to existing customers and to interchange that traffic to your railroad? Please elaborate.

14. Do you believe that fewer grain shipments are being made to local grain elevators served by the short line railroads, with more coming directly via truck to the elevators served by your railroad? Please elaborate.
15. Is there any of your railroads' track in adjacent states that may be subject to rationalization in the near future (next 3 – 5 years) that might affect the future of short lines operating in Kansas? If "yes" can you elaborate on those line segments?
16. What do you foresee for the future of short line railroads within Kansas? Please elaborate.
17. Is the "future" identified in the question above unique to Kansas because of its short line Program or does that "future" apply to short lines in the other states in which you operate as well? If it is unique to Kansas, why is that so?
18. Do you enter into any agreements that permit short lines to consolidate shipments into unit trains to take advantage of your unit train rates? What advantages does the present for your railroad, the short line, and customers?
19. Do short lines complement your long haul freight business? (If "yes,"...why....if "no,"...why not?)
20. Which short lines in Kansas would you rate as superior in their service? Why is their service superior? What about inferior service?
21. What are the positive aspects of how the state rail program is currently being administered by KDOT?
22. What changes, if any, in the administration of the state rail program would you recommend?

KDOT Short Line Rail Program, Economic Development/Local  
Government/Chambers of Commerce Representatives Interviews  
Interview Guidelines/Questions

Questions

1. Were you familiar with the KDOT Short Line Loan/Grant Program prior to this interview? Are you aware of any improvements made by the short line Railroad in your area as a result of funding from the KDOT Short Line Loan/Grant Program? Please specify. Do you know if such improvements were completed with funding from this Program?
2. Please describe the role and importance of your area's short line railroad in the local/regional economy.
3. What business sectors and individual businesses are most reliant on short line RR service in your area?
4. What upcoming changes in local or state economic conditions or transportation would either reduce or increase the need for short line rail service in your area?
5. Please talk about the quality of the area's short line railroad service?
6. What would be the economic consequences of major service cuts or outright closure of the short line railroad serving your area?
7. What specific economic/business sectors or individual railroad customers would be most seriously harmed as a result of short line railroad closure. What impacts would you expect: (for example: outright business closure or move out of the area, increased transportation costs from shifting business to truck, other).
8. By contrast, what specific economic/business sectors or individual railroad customers would benefit from enhanced or expanded short line rail service? What benefits would you expect (for example, expanded output, more businesses moving in to the area, lower transportation costs, other)?
9. What promising local area economic development *opportunities* would be missed if the short line railroad substantially reduced service or closed entirely?
10. By contrast, what promising local area economic development *opportunities* would benefit from enhanced or expanded short line rail service?
11. What improvements, if any, to the area's short line railroads would most benefit the local/regional economy.
12. Describe the ability of the area's highways and roads to absorb increased truck traffic that might result from abandonment of the area's short line railroad(s). Please identify any specific problems in the highway and road network that would need to be improved to absorb additional truck traffic.
13. How has the KDOT Short Line Loan/Grant Program benefited your area's short line railroad? What improvements in service have the railroads realized as a result of the program? What specific examples can you describe?

14. Describe the impact and importance of the KDOT Short Line Loan/Grant Program to the area's economy.
15. What changes, if any, in the program would be most beneficial to the area's economy? For example, more funding, funding available for different purposes or additional purposes, different program requirements and incentives, etc.)
16. What are the positive aspects of how the state rail program is currently being administered by KDOT?
17. What changes, if any, in the administration of the state rail program would you recommend?

APPENDIX B  
LIST OF INTERVIEWS

## APPENDIX B: LIST OF INTERVIEWS

Short Lines					
First Name	Last Name	Company	City	State	Servicing Short Line RR
Tom	Willis	Boothill & Western Railway	Wright	KS	BH&W
Henry	Hale	Cimarron Valley Railroad	Santanta	KS	CV
Shane	Cullen	Garden City Western Railway	Peoria	IL	GCW
Charlie	McLean	Kansas & Oklahoma Railroad	Wichita	KS	K&O
Steve	Coomes	Kyle Railroad	Phillipsburg	KS	KYLE
Steve	Helsel	New Century AirCenter Railroad	New Century	KS	NCAC
Mike	Ogborn	OmniTRAX	Denver	CO	NKC
Ed	McKechnie	South Kansas & Oklahoma Railroad	Pittsburg	KS	SKO
Steve	VanWagenen	Victoria & Southern Railway	Medicine Lodge	KS	V&S
Shippers					
First Name	Last Name	Company	City	State	Servicing Short Line RR
Jeff	Bechard	Ag Mark	Beloit	KS	KYLE
Dick	Barsness	Catoosa Fertilizer	Catoosa	OK	SKO
Norbert	Gerstenkorn	Farmer's Co-op Grain Association	Conway Springs	KS	K&O
Joanie	Wilson	Northern Sun Sunflower Seed Processing	Goodland	KS	KYLE
Brad	Cowan	Frontier Equity	Goodland	KS	KYLE
Russ	Paz	Kog Marketers	Goodland	KS	KYLE
Tom	Steward	Mueller Grain Company	Goodland	KS	KYLE
Carol	Bauer	Monarch Cement Company	Humbolt	KS	SKO
Chris	Schroeder	Farmway Co-op	Hunter	KS	K&O
Charles	Swayze	Farmers Coop Equity	Isabel	KS	K&O
Clayton	Mantz	Coffeyville Resources	Kansas City	MO	SKO
Mike	Barrett	DeBruce Grain, Inc.	Kansas City	MO	WATCO
Bill	Fellows	Bartlett Flour Mill	Kansas City	MO	WATCO
Von	Farenbrook	F&F Iron & Metal Co.	Norton	KS	KYLE
Del	Princ	Midway Co-op Assn.	Osborne	KS	KYLE
Jake	Simon	Ash Grove Cement	Overland Park	KS	WATCO
Jerry	Meyer	Tamko Roofing Products, Inc.	Phillipsburg	KS	KYLE
Chuck	Elsea	Scoular Grain	Salina	KS	K&O
Gary	Freisen	Scott City Co-op	Scott City	KS	K&O
Gary	Beachner	Beachner Grain	St. Paul	KS	SKO
Steve	Younger	Stratton Equity Co.	Stratton	CO	KYLE
Dan	Thompson	Vulcan Chemicals	Wichita	KS	K&O
Steve	Hatfield	Richey Sand	Wichita	KS	K&O
Tom	Willis	Right Co-op	Wright	KS	BH&W
Ken	Smazal	Kerry Ingredients	New Century	KS	NCAC
Dwane	Smith	De Elliotte Company, Inc.	New Century	KS	NCAC
Steve	Baldwin	Danisco Ingredients USA, Inc.	New Century	KS	NCAC

<b>Class I Railroads</b>					
<b>First Name</b>	<b>Last Name</b>	<b>Company</b>	<b>City</b>	<b>State</b>	<b>Servicing Short Line RR</b>
Mark	Schmidt	BNSF Railway Co.	Ft Worth	TX	na
Tim	Befort	Kansas City Southern	Kansas City	MO	na
Warren	Wilson	Union Pacific Railroad	Omaha	NE	na
<b>Agencies</b>					
<b>First Name</b>	<b>Last Name</b>	<b>Company</b>	<b>City</b>	<b>State</b>	<b>Servicing Short Line RR</b>
Karen	Strimple	Coffeyville Area Chamber of Commerce	Coffeyville	KS	SKO
Courtney	Warden	Goodland Kansas Chamber of Commerce	Goodland	KS	KYLE
John	Golden	Mid-States Port Authority	Goodland	KS	KYLE
Janet	Seibert	Great Bend Chamber of Commerce	Great Bend	KS	K&O
Jackie	Swatzen	Phillipsburg Chamber of Commerce	Phillipsburg	KS	KYLE
Bryan	Jones	Pittsburg Chamber of Commerce	Pittsburg	KS	SKO
Mark	Werner	City of Pittsburg Port Authority	Pittsburg	KS	SKO
Mary Jo	Downey	East Central Council of Govts.	Stratton	CO	Kyle
Bob	Alderson	Mid-States Port Authority	Topeka	KS	KYLE
Bernie	Cook	Wichita Chamber of Commerce	Wichita	KS	K&O

## APPENDIX C

### OTHER STATES SHORT LINE PROGRAMS

## Freight Rail Assistance Application Packet

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As authorized by the Washington State Legislature, the Washington State Department of Transportation (WSDOT) provides loans and grants to:

- Support light density rail lines
- Improve rail access to ports
- Preserve or restore rail corridors and infrastructure

WSDOT can provide:

- Loans for essential rail projects (including locomotives and rolling stock) on private property
- Grants or loans for essential rail projects on public property

Application packets will be accepted from June 15, 2004 to August 16, 2004. Selection for projects will be announced November 1, 2004.

Application packets must be post marked August 16, 2004. WSDOT Rail Office addresses are listed on page 7 of this packet. Application packets submitted by facsimile will not be accepted.

Your application packet will consist of the information you provide responding to each category below. Use a separate page (or pages) for each item. Beginning on page 8, detailed explanations follow to help you understand what is needed.

1. Contact information
2. Project description
3. Project timetable
4. Project costs worksheet
5. Safety or emergency situation information
6. Preservation of rail line information
7. Project benefits worksheet
8. Economic vitality of rail line information
9. Annual federal income tax return
10. Traffic history
11. Future project cost increases due to special factors
12. Efficiency description
13. Shippers list

### Why should I read these instructions first?

The following information will help you assess whether you qualify for these funds and, if so, more successfully apply.

## **What about confidentiality?**

All successful applications are subject to public records disclosure laws for the state of Washington. If any information contained in the application is confidential/proprietary, please identify those components clearly. Please note that specific information may be marked as proprietary; it is not acceptable to mark the whole application. The state of Washington will protect information to the extent allowable by law. If there is a public records request, the Rail Office will notify the applicant that such information will be released on a specified date. If the applicant wants to keep the information confidential, it is the applicant's responsibility to obtain a court injunction within 10 days of the notice to protect proprietary data. If the applicant fails to obtain the court order prohibiting disclosure, the Rail Office will release the requested information on the date specified.

## **How much money is available?**

The amount of money available is determined by the Washington State Legislature.

WSDOT's current proposal for freight rail assistance totals approximately \$4 million for the 2003-2005 biennium, or roughly \$2 million per year. These funds will be allocated based on the prioritization process described later in this document.

## **How are the limited freight rail assistance funds allocated?**

The state legislature has mandated a number of rules that WSDOT must follow in prioritizing freight rail assistance applications and allocating the limited funds. These are mainly based on existing federal rules (the Federal Railroad Administration's Local Rail Freight Assistance program, or LRFA) with some Washington State modifications where they make sense. For example, the federal program heavily discounts the benefits of new or preserved jobs, whereas these are some of the most important outcomes when Washington State makes freight rail investments.

## **What is the benefit to cost ratio requirement?**

There is a statutory requirement that all freight rail assistance projects must be analyzed to determine benefits and costs. With the exception of situations where continued rail service is in immediate jeopardy, every funded project must deliver more benefits than costs when the benefits are discounted at the federal rate over a 10-year period. The Federal Railroad Administration determines this rate each federal fiscal year and, for 2003, the discount rate is 4.33 percent.

Once a project is determined to have a benefit to cost ratio greater than 1.0, the benefit to cost ratio becomes an important component of the project prioritization process. The higher the benefit to cost ratio, the more likely it is that your project will be funded.

### **How does state benefit/cost analysis differ from the federal model?**

The most significant difference is that the state legislature is very interested in the use of the freight rail assistance program as a means to stimulate economic development. This makes saving or creating jobs very important, whereas the federal approach tends to de-emphasize their value. Washington State counts directly affected jobs for the first two years of the project, whereas the federal rules require that only new jobs can count and then only for the average number of weeks of unemployment in that area.

### **How is the benefit/cost ratio calculated?**

WSDOT will perform the calculations for the benefits, benefit/cost analysis, net present value, and annual discount rate, after the completed packet is received from the applicant.

Please see the last section of this document, “**Components of the application packet and how they are scored.**”

### **How is a project’s priority calculated?**

Once a project is determined eligible due to its benefit/cost ratio, its priority is calculated according to your answers to the questions shown at the end of this document. The maximum scores for each question reflect the relative importance placed on that issue over time by legislators and the community. The maximum possible total is 100 points.

### **How are projects scored?**

Points are awarded based on the information you provide. Two items, geographic equity and local economic need, are based on information WSDOT either has on file or obtains from other state sources. WSDOT will also calculate and add in the benefits of avoided highway damage, if any, using the data you supply:

14 points	local funding percentage	(question 4)
20 points	safety or emergency situation	(question 5)
20 points	preservation of rail line	(question 6)
16 points	benefit/cost ratio	(questions 4 & 7)
14 points	gain in economic vitality	(question 8)
10 points	local economic need	(provided by WSDOT)

6 points      future cost increases      (question 11)

These scoring categories are explained in the section below called “**Components of the application packet and how they are scored.**” More detailed explanations about the categories are available from WSDOT.

### **How does WSDOT calculate local economic need?**

Counties located along the rail line and officially listed as economically depressed under the Washington State Community, Trade and Economic Development - Business Development rules will receive ten points in the prioritization process, zero if they are not.

You can view the eligible counties and criteria at [www.oted.wa.gov/ed/busdev/tax](http://www.oted.wa.gov/ed/busdev/tax). If you do not have Internet access, call the Rail Office and they can fax the information to you.

### **Will funds always be allocated on the project’s priority score?**

Not always. Previous versions of the freight rail laws and the work of the 1995 Freight Rail Policy Development Committee did give some direction as to how a given project might be prioritized. The point method is an attempt to try and quantify project priorities according to those directions. However, state law allows WSDOT considerable latitude in allocating freight rail assistance funds in order to allow for unusual or critical circumstances.

For example:

- if a rail line is abandoned, the state can railbank it to preserve the corridor even if its immediate economics are not viable
- the state can fund a project that would have an extraordinary benefit to the state, for example, if it were to preserve or create an extraordinary number of jobs

### **What importance does major economic benefit have in the prioritization process?**

One common occurrence is that an economic development opportunity of great importance appears unexpectedly. Projects of that kind can easily generate scores of new jobs, which would recoup the total amount of their public funding in new public revenues over just the first few years. Funding such a project ahead of others would certainly be “of benefit to the state.” Again, the prioritization score is a guide to assist the funding allocation process, not the sole means to determine it.

## **What is the “of benefit to the state” provision?**

According to RCW 47.76.240, “lines that provide benefits to the state and local jurisdictions, such as avoided roadway costs, reduced traffic congestion, economic development, environmental protection, and safety, should be assisted through the joint efforts of the state, local jurisdiction, and private sector.”

## **What happens after the initial prioritization?**

### **Getting into the official Capital Improvement Projects and Programs (CIPP) book**

Assuming a project’s benefit/cost ratio (explained previously) is greater than 1.0, and its priority score has been determined and validated by the state, the project will appear in WSDOT’s book of Capital Improvement Projects and Programs (CIPP). As funds become available for each biennium, WSDOT will use the list of rated projects in the CIPP to best allocate the available funds. It is possible that a lower ranked project might be funded ahead of one with a better score if the legislature so directs or under the railbanking rules previously explained.

### **How are loan terms and conditions set?**

Terms and conditions for loans will be determined on a project-by-project basis by WSDOT. This is determined primarily on financial need.

### **What happens if my project is not funded this biennium?**

Projects stay on the CIPP lists indefinitely or until they are funded by other means, private or public. However, an effort will be made at the beginning of each new biennium to refresh the validity of the analysis that went into their ranking.

### **What is railbanking?**

The Washington State Legislature and the Washington Transportation Commission have made it very clear that they do not want to lose rail lines that could be economically viable in the future. If it appears that a line could become economically viable within ten years, the line can be “railbanked”—purchased by the state to prevent its loss as a rail corridor. A railbanked line can be used as a trail on a temporary basis. Maintenance or changes on a railbanked line used as a trail must always preserve the ability to again use the line as a railroad in the future.

## **Why are there so many questions to answer?**

State statutes allow many different reasons to make a freight rail assistance loan to a private railroad or a grant to a public entity. The questions in the application attempt to capture anything that might make your request stand out from the others. No project is likely to have a good answer for every question, and you may mark many questions “not applicable” (N/A). But it is worth the time to fill out the items that do apply to your project because projects that show true value in multiple areas will generally rank higher.

Another reason to gather so much data is that it is important for the future of the freight rail assistance program. WSDOT, the railroads, and any public entities that own them must demonstrate ongoing benefits resulting from the state’s investment. To do that effectively, baseline economic and operational data are needed. WSDOT can then compare results against this data after projects are completed. If you don’t already have data about local businesses, perhaps your local chamber of commerce could help. You could also consider calling businesses located on or near your rail line.

## **Where can I get help completing the packet?**

State law allows WSDOT to provide technical assistance for freight rail projects and operations. Some help is available even if you are only thinking about a potential project. There are both business analysts and professional engineers available on staff with the necessary expertise. However, WSDOT cannot complete the packet for you. Please contact the WSDOT Rail Office at 360-705-7901 or [rail@wsdot.wa.gov](mailto:rail@wsdot.wa.gov) for further information.

## Where do I send my completed application packet?

Your project doesn't officially exist until your completed freight rail assistance application packet is received in the WSDOT Rail Office. You will then receive a letter of confirmation. The mailing address is:

WSDOT Rail Office  
PO Box 47387  
Olympia, WA 98504-7387

If you wish to use express or private mail delivery, please use the address below:

310 Maple Park Ave SE, Rm SA17  
Olympia, WA 98501-2361

The application packet **must** be post marked August 16, 2004.

## What happens after the application is received?

WSDOT staff will first review your proposed plan to be sure it meets the minimum eligibility requirements of statute RCW 47.76. If it does, WSDOT staff will determine if the proposed plan is financially and physically possible. We will contact you to discuss proposed operating procedures and details if they are unclear. In addition, a site visit may be required from WSDOT's rail engineers and analysts.

At the same time, the Federal Railroad Administration (FRA) environmental checklist will be applied where applicable to see what environmental issues are relevant. The FRA checklist would mostly apply where federal funds and new (rather than maintenance or replacement) construction are involved, although environmentally sound construction practices are obviously required for all freight rail assistance projects. Finally, your application will be prioritized following the process described on the following pages.

## Components of the application packet and how they are scored

You must answer each item below marked as “required.” Please answer as many of the other items as possible or state that there is “no response.”

### 1) Contact information (required)

Include contact name, company name, address, phone and fax numbers, and e-mail address (if applicable).

### 2) Project description (required)

Please describe the project. What are you proposing to do? What is the intended outcome? Is another organization, government, or company involved in a partnership for this project?

### 3) Project timetable (required)

Describe the project timetable. Are there some critical dates involved?

### 4) Project costs worksheet (required)

State policy requires that non-emergency loans or grants are available for projects that have a benefit to cost ratio greater than 1.0. This occurs when all the costs and benefits for the ten years following the project are discounted at the annual discount rate and summed. This section provides the details of the costs and projected sources of funding.

Determine the costs and funding needed to complete this proposed project throughout the 10-year evaluation period, showing the details of the various elements that went into each total. You will need to determine three amounts:

- Total cost of the project
- Local funding (includes funding or in-kind contributions from any source other than WSDOT’s freight rail assistance program)
- Amount of state assistance needed (assumed to be total cost minus the amount of local funding)

How is the annual discount rate calculated? (calculated by WSDOT)

The annual discount rate is the freight rail assistance version of net present value calculations, which are common in the financial world. This rate is a key element in benefit/cost analysis of proposed rail projects. Use of this rate is a standard procedure under federal freight rail assistance calculation methods.

The benefits in future years out to the 10-year limit are discounted by the value of the Federal Railroad Administration's published discount rate (4.33 percent currently).

**Please note, WSDOT calculates this value for all applicants. This information can be provided on request.**

### Local funding

Contributions of local funds are not legally required. However, the percentage of local funding is a good indication of how strongly the community will work to ensure the project succeeds.

Local funding can be in-kind contributions as well as direct cash. For example, one sawmill offered to donate the ties if the line out to their mill was restored to operation. A county put its county prisoners to work. The minimum wage value of their labor was part of the in-kind match. A short-line railroad had the spikes and track hardware at a sister railroad, but not the ties and rail, so the value of the spikes and hardware became the match.

Federal or state economic development funds or other sources are excellent forms of local funding and will be counted dollar for dollar as such.

Up to 14 points will be awarded based on the percentage of local funding compared to the total cost of the project.

## **5) Safety or emergency situation information**

The freight rail assistance program isn't designed to help with acute emergency situations, like rerailling trains or stopping fire or flood damage. But if a line is serving active customers, a prolonged shutdown could damage the local economy or drive a current customer away from rail use. In such a case, WSDOT may be able to make an emergency grant to help get a line back into operation.

Otherwise, an imminent safety or emergency situation gives the project up to 20 points in prioritization scoring. These are situations where a safety or emergency situation clearly could occur due to a known problem, for example, a tunnel whose roof is badly weakened or an old swing bridge that could get stuck in one position.

## 6) Preservation of rail line

Explain what will result if the project is not funded this year. If the rail line will be immediately abandoned or if the project will restore service on an inactive rail line, the project will receive 20 points.

## 7) Project benefits worksheet

State policy requires that non-emergency loans or grants are available for projects that have a benefit to cost ratio greater than 1.0. This occurs when all the costs and benefits for the ten years following the project are discounted at the annual discount rate and summed. (See page 8 for an explanation of the annual discount rate.) This section provides the details of the costs and projected sources of funding.

### Avoided highway impacts (calculated by WSDOT)

Studies have shown there is a net benefit to the public in avoiding highway damage through the use of rail freight. WSDOT will calculate the net public benefit from these diversions based on published and reviewed academic research.

### Opportunity costs

The profit from ongoing business operations is considered to be a benefit to the local and state economy. Is there additional/different freight or passenger traffic that would move on this line if the proposed project were completed? For example, if the existing track is too light to support modern 286,000-pound railcars, how much gross profit is being lost to online businesses because they must use smaller railcars? What extra gross profit would a short-line railroad receive if it can capture new business?

Are there competitive savings in transportation costs that would be lost if the line ceases operation or that could be obtained if the proposed project is completed?

### Employment impacts

State policy now allows employment impacts to be counted for the first two years following the completion of the project. What is the current payroll of jobs that would be saved with this project? What is the projected payroll of jobs that would be created, both on the railroad and in the industries it would serve?

For each group of jobs that could be saved or created, please provide the name of a contact person, the company's name, and a phone number.

### Business relocation costs

If the rail line were closed, what costs would the shippers on the line incur in finding and moving to a new location?

### Shipper costs

If an industry losing rail service starts using trucks at their current location, how much would their transportation costs increase?

### Environmental impacts

If existing or future businesses move by truck rather than rail, both fuel usage and pollution increase. Are there any other environmental benefits or concerns that we should consider?

### Reduced operating expenses

Would the proposed grant/loan reduce railroad operating expenses? For example, if track is improved, do crew costs go down because they can get their work done more quickly? If the rail line gets a new locomotive, will that reduce rental or maintenance expenses?

## **8) Economic vitality of the rail line**

Various Transportation Research Board studies for the Federal Railroad Administration have established that the long-term viability of a rail line can be roughly determined by computing the annual carloads per route mile. The reasoning is that there must be enough carloads each year to generate sufficient free cash in order to maintain the rail line's infrastructure.

All projects should result in the line carrying a minimum of 20 carloads per mile per year. Once that condition is satisfied, the larger the percentage gain in the line's number of annual carloads per mile, the greater the number of points that will be awarded. Maximum 14 points.

## **9) Annual federal income tax return (required)**

Provide a copy of your most recent annual federal income tax return and a copy of your most recent year revenues and expenses. Include amount (if any) of reserve funds as of December 31 of the most recent year.

## **10) Traffic history (required)**

Provide the traffic history for the most recent two calendar years. Include carloads and commodities by shipper. Provide projected car count for each of the next ten years.

### **11) Future project cost increases due to special factors**

Are you aware of any special factors that would greatly increase the cost of the project if delayed two years or more? Routine inflation is not considered. Please explain.

Examples of special factors include:

- a) If a bridge is not repaired, it may become unusable within the 2-year period and have to be entirely replaced.
- b) A rail line needs to be built in conjunction with a road or other construction project. Without coordinated construction, the rail project will be dramatically more expensive in the future.

If delays cause the project costs to increase by 25 percent or more of the original cost, up to 6 bonus points will be awarded.

### **12) Efficiency description (required)**

Please describe how the project will make the rail line operational or more efficient to operate.

### **13) Shippers list (required)**

List the shippers that use the rail line or facility today. Include contact person name, company name, and phone number. In addition, provide evidence of local support and shipper commitment for this project. Examples include letters of support from shippers.

## INTERMODAL

CHAPTER 201  
INTERMODAL PILOT PROJECT PROGRAM**761—201.1(72GA,Ch230) General information.**

**201.1(1) Scope of chapter.** This chapter establishes procedures for an intermodal pilot project program using funds transferred to the department by 1987 Iowa Acts, chapter 230, for grants and loans for one or more pilot projects of intermodal transportation facilities.

**201.1(2) Information.** Information about the program, project guidelines, requests for assistance, and answers to questions about the preparation and submission of project applications for funding may be obtained by contacting: Rail and Water Division, Iowa Department of Transportation, 800 Lincoln Way, Ames, Iowa 50010; telephone (515)239-1367.

**761—201.2(72GA,Ch230) Definitions.** The following terms when used in this chapter shall have the following meanings:

*“Demonstration project.”* A pilot project that demonstrates a commercially available energy conservation technique or technology to a target audience.

*“Iowa shipper.”* A freight originator or receiver located within Iowa. This term does not include a shipper whose freight passes through Iowa without originating or terminating in Iowa.

*“Present value.”* The current worth of a future cash flow, determined by discounting the future cash flow by an assumed percentage per year factor.

*“Target audience.”* The audience which a demonstration project is intended to reach. A target audience may be an industry, a public agency, a legislative body, or other group which may use or benefit from the concepts or technologies demonstrated by the pilot project or influence the spread of the concept or technology.

**761—201.3(72GA,Ch230) Eligibility.**

**201.3(1) Applicant.** An applicant is an individual, partnership, firm, company, cooperative, corporation, association or governmental entity and is the proposed recipient of financial assistance. The applicant shall have, where applicable, authority from its board of directors or other governing body to seek financial assistance for the proposed pilot project, to enter into a commitment to repay any loan awarded, to pledge any security offered for the loan, and to proceed with the pilot project if the requested financial assistance is granted.

**201.3(2) Pilot project.** A pilot project is eligible for financial assistance if it meets all of the following conditions:

a. It is a specific plan for a new intermodal transportation facility or for the improvement, restoration, conservation, repair, rehabilitation or expansion of an existing intermodal transportation facility.

b. It is a site, a structure, or equipment that accomplishes or aids in the transfer of freight from one mode of transportation to another, including but not limited to ports, terminals, freight distribution centers, intermodal rolling stock, bulk-breaking facilities, and loading facilities.

c. It is located within Iowa. An eligible pilot project may involve freight and equipment which travels beyond Iowa, provided that any permanently located facility is located within Iowa.

d. It complies with Iowa Code section 473.11 and with 10 CFR section 420.12.

**201.3(3) Costs.**

a. *All projects.* All costs of the pilot project are eligible except the following:

(1) Preparation of the application.

(2) Acquisition of land, a building or structure or any interest therein.

(3) Conducting or purchasing equipment to conduct research, development or demonstration of conservation techniques or technologies not commercially available.

*b. Nondemonstration projects.* The following are additional prohibited costs for a pilot project which is not a demonstration project:

- (1) Construction.
- (2) Construction or repair of buildings or structures.
- (3) Purchase or installation of equipment or materials for energy conservation building retrofits or weatherization.
- (4) Purchase of office supplies, library materials, or equipment in excess of 20 percent of project costs.

*c. Demonstration projects.* A demonstration project is not subject to the additional cost prohibitions in paragraph 201.3(3) "b." For example, demonstration projects may include costs for construction and equipment purchases.

**761—201.4(72GA,Ch230) Financial assistance.**

**201.4(1) Grants.** The department may award to an applicant a grant for up to 80 percent of the eligible costs of the pilot project.

**201.4(2) Loans.** The department may loan money to an applicant for up to 90 percent of the eligible costs of the pilot project. The department shall determine all loan terms based upon an evaluation of the application.

**201.4(3) Combination of grants and loans.** The department may award a combination of a grant and a loan to an applicant. The total of all grants and loans awarded for one pilot project shall not exceed 90 percent of the eligible costs of the pilot project.

**761—201.5(72GA,Ch230) Application procedure.**

**201.5(1) Request.** The rail and water division shall supply all necessary information for submitting an application for financial assistance for a project to any person requesting the information.

**201.5(2) Application.** The applicant shall submit an original and four copies of an application for financial assistance to the rail and water division at the address given in subrule 201.1(2). The application shall include, but not be limited to, the following information:

*a.* A complete description of the applicant, including (where applicable) the officers, directors, major stockholders or partners (those holding more than 4 percent of the equity), the chief executive and financial managers of the applicant, the applicant's articles of incorporation and bylaws, and a description of all subsidiaries or parent companies. The description of the applicant shall include the applicant's current (not more than three months old) balance sheet, and the applicant's balance sheets, income statements, statements of changes in financial position, and cash flow statements for each of the three fiscal years preceding the application or for all years since incorporation or formation if the applicant has not been in existence for three years.

*b.* A description of the proposed pilot project and its purpose, including all of the following:

- (1) A complete physical description of the project.
- (2) Cost estimates for all material components of the project.
- (3) A description or map of all real property, if any, upon which the project facilities will be located, the name and address of the owner or lessor of the real property, and a copy of all lease agreements, encumbrances and interests in or affecting the real property.
- (4) An operating plan including employee and equipment utilization.
- (5) A marketing and traffic plan projecting the quantities and major origins, destinations or overhead transfer points of potential and committed freight traffic that will use the project. The plan shall distinguish between potential freight and committed freight.

*c.* If financial assistance is sought for a demonstration project, a detailed description of the target audience for the project and the applicant's plans to inform the target audience about the project, to make the project accessible for the target audience to visit, to provide technical assistance to the target

audience to help implement the techniques demonstrated by the project, and to determine if the concepts and practices in the project are being used by the target audience.

*d.* A cash flow projection for the project including operating revenues and costs, capital costs, debt repayments of principal and interest, and profit distributions. The cash flow projection shall cover at least the number of years requested by the applicant to repay any loan.

*e.* A projection of total annual dollar savings of freight transportation, handling, and other costs to Iowa shippers from use of the project.

*f.* A projection of total annual ton-miles of freight in Iowa to be diverted from highway to non-highway modes as a result of the project.

*g.* A projection of annual energy savings from the project. The projection shall show methods of calculation and show how the projected energy savings are consistent with the projected operating plan and the marketing and traffic plan.

*h.* A description of agreements to permit transportation companies to have reasonable competitive access to the project to maximize the use of, and the energy savings from, the proposed project.

*i.* A written statement by the applicant acknowledging that all of the information in the application is public information, and a release of the department from liability for its disclosure.

*j.* A detailed request for financial assistance, including the dollar amount of any proposed grant and the dollar amount, loan term, interest rate and proposed amortization schedule of any proposed loan. If a loan is requested, a description of the security (including an appraisal of any real estate) to be offered to the department shall be included.

*k.* A certification by the applicant under penalty of perjury, that any award of financial assistance, any subsequent letting of contracts for project costs, or the furnishing of materials therefor, shall not involve direct or indirect interest, prohibited by Iowa Code section 314.2, 362.5, or 331.342, of any state, county, or city official, elective or appointive. The certification shall also state that any award of financial assistance or any letting of any contract in violation of the foregoing provisions shall invalidate the award of financial assistance and authorize a complete recovery of any funds previously disbursed.

**201.5(3) *Review and acceptance of application.***

*a.* The department shall determine and notify the applicant of the completeness of the application.

*b.* If the application is incomplete, the department shall specify the additional information needed.

(1) The department shall establish a deadline for submission of the additional information.

(2) The department may grant an extension for good cause if requested by the applicant.

(3) If all the requested information is not received by the deadline, the department shall return the incomplete application to the applicant, who may resubmit it as a new application.

*c.* If the department determines that the application is complete, the department shall notify the applicant by certified mail within ten working days that the application is accepted and shall be processed.

*d.* An applicant may withdraw an application at any time.

**201.5(4) *Public announcement.*** The department shall publish an announcement of each complete application within 14 days of acceptance.

*a.* The announcement shall include a description of the project, the date on which the complete application was accepted, and the location where the public can view or obtain a copy of the application.

*b.* The announcement shall be published in one newspaper of statewide circulation and one newspaper circulated in the project area.

*c.* The department shall accept written comments for 20 days following the date of publication.

**201.6(1)** Department staff shall prepare an analysis of each complete application.

**201.6(2)** The analysis shall include but not be limited to:

- a. An evaluation of the projected energy savings from the project.
- b. If the project is a demonstration project, an evaluation of the project's target audience and the applicant's proposed efforts to reach the target audience.
- c. An economic analysis of the public benefits versus the public costs of the project. All benefits and costs shall be calculated for a period reflecting a reasonable life expectancy of the project, discounted to present value, using the following formula and terms:

$$\frac{\text{Public benefits}}{\text{Public costs}} = \frac{\text{Shipper benefits} + \text{highway authority benefits}}{\text{Public financial assistance}}$$

(1) Shipper benefits are the dollar savings of freight transportation, handling and other costs to Iowa shippers from use of the proposed project.

(2) Highway authority benefits are road and street maintenance, construction, and reconstruction costs projected to be avoided as a result of diversion of freight traffic from Iowa roads and streets because of the proposed project.

(3) Public financial assistance is the dollar amount of any grant, plus the present value of an interest subsidy for any loan provided by the department to the project.

d. A financial analysis of the project to determine whether it can reasonably be expected to succeed financially. The analysis shall include:

(1) An evaluation of whether the project will be able to repay a commercial interest rate loan, in which case department financial assistance may be unnecessary;

(2) An evaluation of what combination and type of loan or grant may be needed to provide the project with a likelihood of financial viability, if this is possible; and

(3) An evaluation of whether the project is so financially insecure that it cannot be expected to succeed even with department financial assistance.

**761—201.7(72GA,Ch230) Staff recommendation.**

**201.7(1)** Department staff shall prepare a recommendation for each complete application.

**201.7(2)** The staff shall not recommend approval of the application unless all of the following conditions, where applicable, are satisfied:

- a. The project shall have projected energy savings.
- b. If the project is a demonstration project, it shall have a specific target audience, the applicant's proposed efforts to reach the target audience shall be reasonable and adequate, the project shall be convenient for the target audience to visit, and there shall be a method to determine if the project is being accepted and used by the target audience.
- c. The present value of the public benefits from the project shall equal or exceed the present value of the public costs, or the energy savings shall be substantial enough to be judged by staff to outweigh an unfavorable economic analysis.
- d. The financial analysis shall show that the applicant is financially responsible and able to undertake the pilot project with the recommended financial assistance, so that the projected energy savings and public benefits can reasonably be expected to be achieved.

**201.7(3)** A staff recommendation for approval shall include the type and amount of assistance recommended.

**761—201.8(72GA,Ch230) Commission action.**

**201.8(1)** The staff shall present the complete application and the staff analysis and recommendation to the commission at a public meeting. The staff shall send to the commission and the applicant copies of the analysis and recommendation at least 14 days before the presentation date.

**201.8(2)** The commission may approve, reject, or modify the staff recommendation.

**201.8(3)** If financial assistance is approved by the commission, the project shall be submitted to the Iowa energy fund disbursement council for approval. If approved by the Iowa energy fund disbursement council, the project shall be submitted to the U.S. Department of Energy for approval.

**201.8(4)** If the commission denies financial assistance, the application may be submitted as a new application.

**761—201.9(72GA,Ch230) Contract preparation and execution.**

**201.9(1)** After the commission and other necessary authorities have approved financial assistance, the rail and water division shall negotiate a contract with the applicant which complies with all the approval terms and requirements specified. The contract shall require the applicant to indemnify the state and its officers and employees to the full extent permitted by law.

**201.9(2)** Prior to execution of the contract, the department may require a preaudit evaluation of the applicant. The preaudit evaluation may include, but shall not be limited to, the following:

*a.* An examination of the applicant's accounting methods and procedures to determine the applicant's ability to segregate and accumulate costs to be charged against the project.

*b.* An examination of the applicant's cost factors to assure their propriety and allowability.

*c.* An examination of any other information which may be pertinent or necessary to determine the applicant's auditability.

**201.9(3)** If the preaudit evaluation shows that revisions to the applicant's accounting procedures are necessary to assure that applicant's auditability, the revisions shall be made by the applicant prior to execution of the contract.

**201.9(4)** After any preaudit evaluation and at the conclusion of successful contract negotiations, the director of the rail and water division shall execute the contract.

**201.9(5)** If contract negotiations are not successfully completed within a reasonable period, the commission may withdraw its approval of financial assistance.

**761—201.10(72GA,Ch230) Monitoring.** The department shall monitor all contract provisions for compliance.

These rules are intended to implement Iowa Code section 473.11 and 1987 Iowa Acts, chapter 230, sections 1, 4, 5, 6 and 7.

[Filed emergency 11/24/87—published 12/16/87, effective 11/30/87]

[Filed 2/3/88, Notice 12/16/87—published 2/24/88, effective 3/30/88]

## APPENDIX D

PUBLIC INFORMATION OPEN HOUSE MEETINGS;  
POWERPOINT PRESENTATION, SIGN-IN SHEETS, AND  
COMPLETED COMMENT FORMS

**DRAFT PRESS RELEASE**

Rev. 7/5/05

**Date**

**For Immediate Release**

**News Contact: John Maddox, KDOT Rail Affairs Manager, 785-269-3228**

The Kansas Department of Transportation (KDOT) will sponsor two public information open houses in August for people interested in short line railroad service in Kansas. The purpose of the open houses is to review the progress of the six-month Short Line Railroad Study being conducted by the consulting firm of Parsons Brinckerhoff for KDOT.

KDOT is conducting the Short Line Rail Study to evaluate the effectiveness of its Short Line Railroad loan/grant program, which has been in effect since 1999. Through the program, KDOT provides \$3 million per year to short line railroads in Kansas to upgrade their tracks to provide more efficient rail service within the state.

The open houses are scheduled for the following locations:

Phillipsburg                      Tuesday, August 2, 2005  
3 – 7 p.m.  
McDill “Huck” Boyd Community Center  
860 Park Street

Wichita                              Wednesday, August 3, 2005  
3 – 7 p.m.  
Hughes Metro-Plex  
Near Corner of 29<sup>th</sup> and Oliver

Representatives from KDOT and Parsons Brinckerhoff will be available to discuss the study and short line railroad issues, as well as to answer questions. There will be displays available, including maps and graphics. There will also be two brief presentations at 4 p.m. and 6 p.m. each day.

For more information about the open houses, people are invited to contact John Maddox, KDOT’s Rail Affairs Manager, at (785)296-3228 or toll-free at 1-877-550-5368.

The open house locations are ADA accessible. Persons in need of a sign language interpreter, an assistive listening device, large print or Braille material, or other accommodation to attend this meeting, should notify KDOT at least one week prior to the open house. Address requests to Ron Kaufman, Bureau of Public Involvement, Kansas Department of Transportation, 700 SW Harrison, 2<sup>nd</sup> Fl West, Topeka, KS 66603-3754 or contact by phone 785-296-3585 (voice or TTY) or toll-free at 1-877-550-5368 (voice only).

###

This information can be made available in alternative accessible formats upon request.



Study of Kansas Short Line Railroad Program



August 2, 2005  
Open House  
Phillipsburg

NAME	ADDRESS	PHONE	E-MAIL
Doyle D. RAHJES	1798 E 900 Rd	785-638-2818	DRAHJES@RURALTTEL.NET
Denis Sweat	2032 255 Rd Cedar KS	785 476 2265	
John Rosacker	KNOT		
Dell Princ	Osborne, KS	785-346-5451	dprinc@midwaycoop.com
Dennis Bedore	Stockton KS	785-425-6511	stoccoop@ruraltel.net
Steve Coomes	Phillipsburg KS	785-543-9603	steve-coomes@railamerica.com



Study of Kansas Short Line Railroad Program



August 2, 2005  
Open House  
Phillipsburg

NAME	ADDRESS	PHONE	E-MAIL
Clayton Mantz	Coffeyville Resources Nitrogen Kansas City, KS Fertilizers, LLC	913-982-0463	cdmantz@coffeyvillegroup.com
Terry Hedinger	Coffeyville Resources Terminal	785-543-5246	thedinger@coffeyvillegroup.com
Jeff Hedinger		785-543-5809	PCED@RURALTEC.NET
Bob Streyer	PO Box 204	785-693-4597	bkstreyer@hotmail.com
Jim Milk	POB 162	785-543-5529	N/A
Downy	Box 660 Stratton CO 80866	719-548-5562	jdowny@prairie.net
Roger Strabe	Rooks County Econ. Dev. 115 N Walnut Stockton, KS	785-425-6881	rooksed@ruraltel.net
VINCE COMO	38 Railroad Ave Phillipsburg, KS 67661	785-543-9666	VINCE.COMO@RAILAMERICA.COM
Von Fahrenbruch	PO Box 310 Norton KS 67659	785-877-3830	vonfiron@ruraltel.net
Richard Chantier	725 Campbell Ave Clade KS, 66934	785 446-3299	
Martin Nelson	Countland KS P.O. Box 76	785-374-4345	
Jennie Gutteny	2443 Rayburn Wash DC 20003	202 225 2715	jennie.gutteny@mail.house.gov
Tammy Goorman	4201 E Arkansas Ave <sup>Denver</sup> CO	303/757-9811	tamela.goorman@dot.state.co.us
John Golden	Box 330 Goodland KS	785 899-5411	
Froy McGee	221 Pine St. Arriba CO	719-768-3311	arribagrain@ria.net



# Welcome!



To the KDOT Open House at Phillipsburg



*Study of Kansas Short Line Railroad Program*



## *Study of Kansas Short Line Railroad Program*

### **Study Purpose**

- Determine the Effectiveness & Success of the Short Line Railroad Loan/Grant Component of the 1999 Comprehensive Transportation Program
- Examine the Role & Future Trends of Short Line Railroads in Kansas
- Examine Future Directions for the Kansas Short Line Railroad Program



*Study of Kansas Short Line Railroad Program*



# Schedule

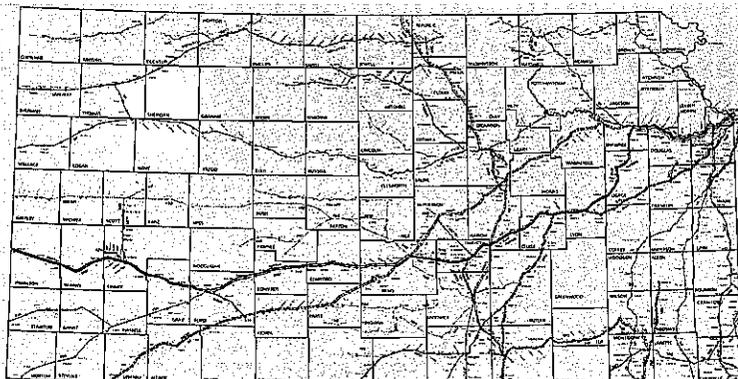
- May 1, 2005 Study Begins
- May/June Data Collection
- July Begin Railroad, Shipper, and Local Official Interviews
- August 2, 3 Open Houses in Phillipsburg and Wichita
- August Compile Interview Data  
Evaluate KDOT Program Data
- September 30 Draft Report
- October 31 Final Report Conclusions and Recommendations



Study of Kansas Short Line Railroad Program



# Kansas Railroad Map 2004



ABBREVIATIONS		ABBREVIATIONS		ABBREVIATIONS	
ADP	ATKINS & NORTH WALKER RAILROAD	18	MOBILE	19	MOBILE
APR	ATKINS & NORTH WALKER RAILROAD	19	MOBILE	20	MOBILE
BRN	ATKINS & NORTH WALKER RAILROAD	20	MOBILE	21	MOBILE
BLU	ATKINS & NORTH WALKER RAILROAD	21	MOBILE	22	MOBILE
GRN	ATKINS & NORTH WALKER RAILROAD	22	MOBILE	23	MOBILE
ORN	ATKINS & NORTH WALKER RAILROAD	23	MOBILE	24	MOBILE
PKT	ATKINS & NORTH WALKER RAILROAD	24	MOBILE	25	MOBILE
YEL	ATKINS & NORTH WALKER RAILROAD	25	MOBILE	26	MOBILE
IND	ATKINS & NORTH WALKER RAILROAD	26	MOBILE	27	MOBILE
WHT	ATKINS & NORTH WALKER RAILROAD	27	MOBILE	28	MOBILE
BLK	ATKINS & NORTH WALKER RAILROAD	28	MOBILE	29	MOBILE
GRY	ATKINS & NORTH WALKER RAILROAD	29	MOBILE	30	MOBILE
BRD	ATKINS & NORTH WALKER RAILROAD	30	MOBILE	31	MOBILE
BLU	ATKINS & NORTH WALKER RAILROAD	31	MOBILE	32	MOBILE
GRN	ATKINS & NORTH WALKER RAILROAD	32	MOBILE	33	MOBILE
ORN	ATKINS & NORTH WALKER RAILROAD	33	MOBILE	34	MOBILE
PKT	ATKINS & NORTH WALKER RAILROAD	34	MOBILE	35	MOBILE
YEL	ATKINS & NORTH WALKER RAILROAD	35	MOBILE	36	MOBILE
IND	ATKINS & NORTH WALKER RAILROAD	36	MOBILE	37	MOBILE
WHT	ATKINS & NORTH WALKER RAILROAD	37	MOBILE	38	MOBILE
BLK	ATKINS & NORTH WALKER RAILROAD	38	MOBILE	39	MOBILE
GRY	ATKINS & NORTH WALKER RAILROAD	39	MOBILE	40	MOBILE
BRD	ATKINS & NORTH WALKER RAILROAD	40	MOBILE	41	MOBILE
BLU	ATKINS & NORTH WALKER RAILROAD	41	MOBILE	42	MOBILE
GRN	ATKINS & NORTH WALKER RAILROAD	42	MOBILE	43	MOBILE
ORN	ATKINS & NORTH WALKER RAILROAD	43	MOBILE	44	MOBILE
PKT	ATKINS & NORTH WALKER RAILROAD	44	MOBILE	45	MOBILE
YEL	ATKINS & NORTH WALKER RAILROAD	45	MOBILE	46	MOBILE
IND	ATKINS & NORTH WALKER RAILROAD	46	MOBILE	47	MOBILE
WHT	ATKINS & NORTH WALKER RAILROAD	47	MOBILE	48	MOBILE
BLK	ATKINS & NORTH WALKER RAILROAD	48	MOBILE	49	MOBILE
GRY	ATKINS & NORTH WALKER RAILROAD	49	MOBILE	50	MOBILE
BRD	ATKINS & NORTH WALKER RAILROAD	50	MOBILE	51	MOBILE
BLU	ATKINS & NORTH WALKER RAILROAD	51	MOBILE	52	MOBILE
GRN	ATKINS & NORTH WALKER RAILROAD	52	MOBILE	53	MOBILE
ORN	ATKINS & NORTH WALKER RAILROAD	53	MOBILE	54	MOBILE
PKT	ATKINS & NORTH WALKER RAILROAD	54	MOBILE	55	MOBILE
YEL	ATKINS & NORTH WALKER RAILROAD	55	MOBILE	56	MOBILE
IND	ATKINS & NORTH WALKER RAILROAD	56	MOBILE	57	MOBILE
WHT	ATKINS & NORTH WALKER RAILROAD	57	MOBILE	58	MOBILE
BLK	ATKINS & NORTH WALKER RAILROAD	58	MOBILE	59	MOBILE
GRY	ATKINS & NORTH WALKER RAILROAD	59	MOBILE	60	MOBILE
BRD	ATKINS & NORTH WALKER RAILROAD	60	MOBILE	61	MOBILE
BLU	ATKINS & NORTH WALKER RAILROAD	61	MOBILE	62	MOBILE
GRN	ATKINS & NORTH WALKER RAILROAD	62	MOBILE	63	MOBILE
ORN	ATKINS & NORTH WALKER RAILROAD	63	MOBILE	64	MOBILE
PKT	ATKINS & NORTH WALKER RAILROAD	64	MOBILE	65	MOBILE
YEL	ATKINS & NORTH WALKER RAILROAD	65	MOBILE	66	MOBILE
IND	ATKINS & NORTH WALKER RAILROAD	66	MOBILE	67	MOBILE
WHT	ATKINS & NORTH WALKER RAILROAD	67	MOBILE	68	MOBILE
BLK	ATKINS & NORTH WALKER RAILROAD	68	MOBILE	69	MOBILE
GRY	ATKINS & NORTH WALKER RAILROAD	69	MOBILE	70	MOBILE
BRD	ATKINS & NORTH WALKER RAILROAD	70	MOBILE	71	MOBILE
BLU	ATKINS & NORTH WALKER RAILROAD	71	MOBILE	72	MOBILE
GRN	ATKINS & NORTH WALKER RAILROAD	72	MOBILE	73	MOBILE
ORN	ATKINS & NORTH WALKER RAILROAD	73	MOBILE	74	MOBILE
PKT	ATKINS & NORTH WALKER RAILROAD	74	MOBILE	75	MOBILE
YEL	ATKINS & NORTH WALKER RAILROAD	75	MOBILE	76	MOBILE
IND	ATKINS & NORTH WALKER RAILROAD	76	MOBILE	77	MOBILE
WHT	ATKINS & NORTH WALKER RAILROAD	77	MOBILE	78	MOBILE
BLK	ATKINS & NORTH WALKER RAILROAD	78	MOBILE	79	MOBILE
GRY	ATKINS & NORTH WALKER RAILROAD	79	MOBILE	80	MOBILE
BRD	ATKINS & NORTH WALKER RAILROAD	80	MOBILE	81	MOBILE
BLU	ATKINS & NORTH WALKER RAILROAD	81	MOBILE	82	MOBILE
GRN	ATKINS & NORTH WALKER RAILROAD	82	MOBILE	83	MOBILE
ORN	ATKINS & NORTH WALKER RAILROAD	83	MOBILE	84	MOBILE
PKT	ATKINS & NORTH WALKER RAILROAD	84	MOBILE	85	MOBILE
YEL	ATKINS & NORTH WALKER RAILROAD	85	MOBILE	86	MOBILE
IND	ATKINS & NORTH WALKER RAILROAD	86	MOBILE	87	MOBILE
WHT	ATKINS & NORTH WALKER RAILROAD	87	MOBILE	88	MOBILE
BLK	ATKINS & NORTH WALKER RAILROAD	88	MOBILE	89	MOBILE
GRY	ATKINS & NORTH WALKER RAILROAD	89	MOBILE	90	MOBILE
BRD	ATKINS & NORTH WALKER RAILROAD	90	MOBILE	91	MOBILE
BLU	ATKINS & NORTH WALKER RAILROAD	91	MOBILE	92	MOBILE
GRN	ATKINS & NORTH WALKER RAILROAD	92	MOBILE	93	MOBILE
ORN	ATKINS & NORTH WALKER RAILROAD	93	MOBILE	94	MOBILE
PKT	ATKINS & NORTH WALKER RAILROAD	94	MOBILE	95	MOBILE
YEL	ATKINS & NORTH WALKER RAILROAD	95	MOBILE	96	MOBILE
IND	ATKINS & NORTH WALKER RAILROAD	96	MOBILE	97	MOBILE
WHT	ATKINS & NORTH WALKER RAILROAD	97	MOBILE	98	MOBILE
BLK	ATKINS & NORTH WALKER RAILROAD	98	MOBILE	99	MOBILE
GRY	ATKINS & NORTH WALKER RAILROAD	99	MOBILE	100	MOBILE



Study of Kansas Short Line Railroad Program

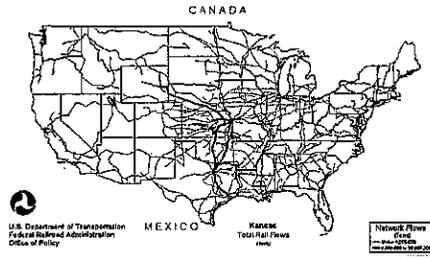


# Freight Flows & Forecasts

Freight Shipments To, From, and Within Kansas

	Tons (millions)			Value (billions \$)		
	1998	2010	2020	1998	2010	2020
State	248	342	410	162	297	457
Total by Mode						
Air	<1	<1	<1	3	7	12
Highway	190	261	311	144	264	406
Rail	58	80	98	15	26	39

Source: FHWA



Measured by ton-miles  
rail shipments = 42% of single mode commodity flows



Study of Kansas Short Line Railroad Program



# Freight Flows & Forecasts



Top Five Commodities Shipped To, From, Within Kansas

Commodity	Tons (millions)		Commodity	Value (billions \$)	
	1998	2020		1998	2020
Farm Products	80	108	Food/Kindred Products	29	98
Food/Kindred Products	32	66	Transportation Equipment	29	64
Nonmetallic Minerals	31	43	Farm Products	27	43
Petroleum/Coal Products	22	27	Secondary Traffic*	15	67
Secondary Traffic*	15	44	Chemicals/Allied Products	14	35

\* to/from distribution centers, intermodal facilities  
Source: FHWA

Farm products and Food/Kindred products  
- wheat, grain products, corn, other crops, livestock, meatpacking, dairy, others - constitute 40% of Kansas' shipments by weight, 23% by value.

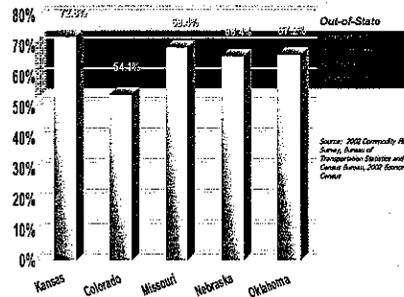


Study of Kansas Short Line Railroad Program



## Rail Transport & State & Regional Economy

- \* Rail carries 30% of Kansas' cereal grain exports
- \* Major non-agricultural commodities shipped predominantly by rail, e.g. , motorized & other vehicles/parts
- \* Value of Kansas out-of-state shipments (as % of total shipments) higher than neighboring states
- \* Transportation and handling costs key variables in farm income
- \* Fewer, larger farms; farm semi-tractor trailer truck ownership shifting some grain shipments away from Short Lines
- \* Short Line service provides lower cost for freight hauled over 250 miles



Study of Kansas Short Line Railroad Program



## Short Line Program History

- \* May 10, 1999 House Bill 2071 (Comprehensive Transportation Program Legislation) signed into law
- \* July 1, 1999 Short Line Program begins  
\$3 Million per year to Kansas Short Line Railroads in low interest loans
- \* 1999 – 2005 Program Funds to Kansas Short Line Railroads to rehabilitate infrastructure and assist in acquisition of Rail Lines in jeopardy of abandonment
- \* 2005 KDOT Study to determine Program effectiveness
- \* July 1, 2007 Program funding ends unless extended by Kansas Legislature



Study of Kansas Short Line Railroad Program



# Program Funding

## STATE RAIL SERVICE IMPROVEMENT FUNDS PROGRAM

State Fiscal Year	Entry Receiving Funds	Loans	Grants	Totals of Grants and Loans	Purpose	Total Miles
2000	CK Railroad	452,270.70			Rehabilitation	22.2
	Kyle Railroad	395,000.40			Rehabilitation	62.0
	NKC Railroad	443,000.10			Rehabilitation	73.2
	SK & O Railroad	249,616.00			Rehabilitation	29.4
	SK & O Railroad	225,334.00			Rehabilitation	23.6
	NCAC Railroad	210,000.00			Rehabilitation	5.0
				1,907,623.20		
2001	Kyle Railroad	226,985.00	170,239.00		Rehabilitation	59.0
	K & O Railroad		2,009,000.00		Acquisition	725.0
				2,209,239.00		
2002	BH & W Railroad	248,548.00	186,911.00		Rehabilitation	9.0
	K & O Railroad	395,250.00	295,439.00		Rehabilitation	50.0
	K & O Railroad	148,850.00	111,600.00		Rehabilitation	10.0
	K & O Railroad		2,000,000.00		Acquisition	
	Kyle Railroad	268,513.89	199,825.42		Rehabilitation	85.0
	SK & O Railroad	215,100.00	188,325.00		Rehabilitation	27.0
	SK & O Railroad	300,120.49	225,990.37		Rehabilitation	29.8
				4,778,581.87		
2003	K & O Railroad	183,681.36	137,761.02		Rehabilitation	17.0
	K & O Railroad	175,076.51	131,307.08		Rehabilitation	13.5
	K & O Railroad		1,500,000.00		Acquisition	
	Kyle Railroad	406,929.60	305,197.20		Rehabilitation	36.0
	SK & O Railroad	39,589.94	29,092.46		Rehabilitation	0.25
	SK & O Railroad	201,301.46	150,976.09		Rehabilitation	26.7
	SK & O Railroad	99,338.85	74,954.14		Rehabilitation	27.2
	SK & O Railroad	166,758.21	147,568.66		Rehabilitation	20.0
	SK & O Railroad	178,078.27	133,557.20		Rehabilitation	18.1
	NCAC Railroad	217,197.39	162,897.80		Rehabilitation	5.0
				4,472,461.45		
2004	K & O Railroad		1,500,000.00		Acquisition	
	K & O Railroad	170,031.75	127,523.84		Rehabilitation	16.4
	K & O Railroad	150,441.50	112,031.12		Rehabilitation	1.2
	K & O Railroad	178,390.19	133,702.01		Rehabilitation	15.0
	K & O Railroad	208,125.80	156,095.10		Rehabilitation	17.5
	Kyle Railroad	232,548.33	174,411.25		Rehabilitation	14.0
	SK & O Railroad	95,129.95	71,382.46		Rehabilitation	9.0
		NCAC Railroad		200,072.08		Rehabilitation
				3,510,276.97		
	<b>Grand Totals</b>	<b>\$ 6,508,179</b>	<b>\$ 10,626,488</b>	<b>\$ 17,126,567</b>	Rehabilitation	725
					Acquisition	725
					<b>Total</b>	<b>1,450</b>



## Major Factors Affecting Economic Analysis

- Where is the Kansas economy (especially farm economy) headed and how will this effect the demand for Short Line Railroad service in the future?
- How is the role of Short Line Railroad service changing relative to trucks, Class I Railroads? Will Short Line Railroads become more or less competitive in the future?



Study of Kansas Short Line Railroad Program



## Our Approach

- **Assess Impacts of the Program on Short Line Operations**
  - *Avoidance of abandonments*
  - *Improved service/operating efficiencies (e.g., faster operating speed, 286,000 lb hopper car capability)*
  - *Market share preserved (rail vs. truck)*
- **Assess Economic Considerations:**
  - *Lower transportation costs for shippers*
  - *Expanded market reach for shippers*
  - *Farm income and job preservation*
  - *Fewer trucks on Kansas highways = highway maintenance cost savings*
- **Build on previous studies, including 2002 analysis by Kansas State University economists**
- **Focus on Shipper and Railroad Interviews**

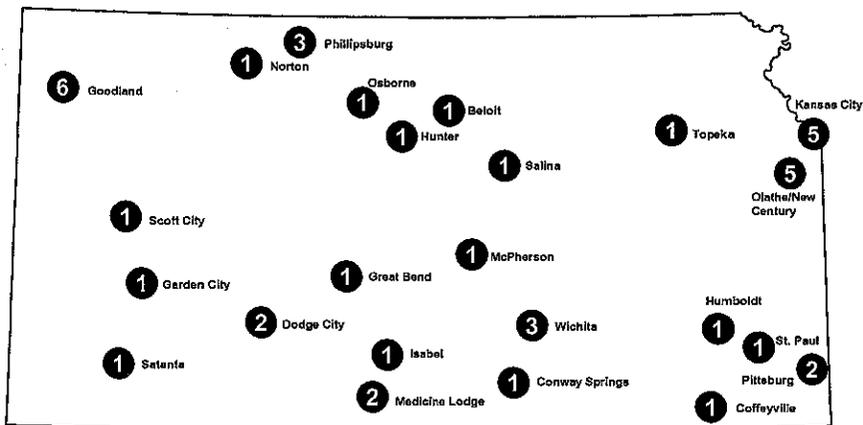


Study of Kansas Short Line Railroad Program



## Map of Interviews

③ Location and Number of Interviews



Study of Kansas Short Line Railroad Program



# Please Give Us Your Comments



*Study of Kansas Short Line Railroad Program*





AUGUST 2005 OPEN HOUSES

Attn: Randy Grauberger  
Parsons Brinckerhoff  
1660 Lincoln Street, Suite 2100  
Denver, CO 80264

COMMENT SHEET

Office Phone: (303) 390-5927  
Office Fax (303) 832-9096  
Email: grauberger@pbworld.com

NAME: Troy McCue  
ADDRESS: 221 Pine St.  
CITY, STATE, ZIP Arriba, CO 80804  
PHONE: 719-768-3311 EMAIL: arribayrain@ria.net

PLEASE CHECK LOCATION OF  
OPEN HOUSE YOU ATTENDED:

- Phillipsburg
- Wichita

Your comments on the Short Line Railroad Program are appreciated and will be considered. Please write your comments below and mail or fax to the address or number indicated. COMMENTS MUST BE RECEIVED BY AUGUST 10, 2005. Fold comment sheet in half, staple and include postage before mailing. Thank you.

Our experience and commerce in relation to the Kyle Railroad has an enormous effect on our lives. We rely heavily on the shortline railroad to move 90%+ of our outbound freight, and we have been able to broaden our economic base due to the acquisition of a REA Pole Yard and receiving large lots of timber in the form of poles for re-distribution by truck across the state of Colorado.

The Short Line Railroad Program is important to help shortlines like the Kyle Railroad, provide better infrastructure and service to shippers and receivers like ourselves. The upgrading and improvement of the railbed with new ballast, new ties, and heavy-load rail will directly assist the shortline industry to stay competitive with the Truck and Class I Railroad of

Although we are located in Eastern Colorado, every dollar spent on the Kyle Railroad has a direct and specific impact on our quality of service. We rely on Kansas Shortline Railroads, and the effectiveness of this program is felt. Kansas provides important leadership in freight railroading to Colorado, and we are much more connected to that concern than to our tourism-driven neighbors along the front range.

Thank you

Troy McCue  
ARB Crain, LLC





AUGUST 2005 OPEN HOUSES

Attn: Randy Grauberger  
Parsons Brinckerhoff  
1660 Lincoln Street, Suite 2100  
Denver, CO 80264

COMMENT SHEET

Office Phone: (303) 390-5927  
Office Fax (303) 832-9096  
Email: grauberger@pbworld.com

NAME: ROGER HRABE, Rooks Co. Econ. Dev.  
ADDRESS: 115 N Walnut  
CITY, STATE, ZIP Stockton KS 67669  
PHONE: 785-425-6881 EMAIL: rooksed@rvrattel.net

PLEASE CHECK LOCATION OF  
OPEN HOUSE YOU ATTENDED:

- Phillipsburg
- Wichita

Your comments on the Short Line Railroad Program are appreciated and will be considered. Please write your comments below and mail or fax to the address or number indicated. COMMENTS MUST BE RECEIVED BY AUGUST 10, 2005. Fold comment sheet in half, staple and include postage before mailing. Thank you.

To be blunt, the short line program was of no help to us in Rooks County trying to save the Kyle Line from Osburne to Stockton. It didn't seem to matter what proposal we put forth, nothing satisfied the Kyle. In fairness to KDOT, the program was offered, but according to their figures, it was not a high priority project.

Personally, I became totally frustrated by the fact that a lot of talk was given to the fact that we are losing short lines, and the consequences of that for our county roads. But when it came right down to willing shippers along the line, willing to pay out of the nose for improvements to save the line, NOTHING could be done. A lot of talk, with no action. We could do nothing, short of purchasing the railroad.

We are still hopeful that the line can be saved, but all our options seem to be gone.



AUGUST 2005 OPEN HOUSES

Attn: Randy Grauberger  
Parsons Brinckerhoff  
1660 Lincoln Street, Suite 2100  
Denver, CO 80264

COMMENT SHEET

Office Phone: (303) 390-5927  
Office Fax (303) 832-9096  
Email: grauberger@pbworld.com

NAME: Steve Coomes / Kyle Railroad  
ADDRESS: 38 Railroad Ave.  
CITY, STATE, ZIP Phillipsburg Ks 67661  
PHONE: 785-543-9603 EMAIL: steve.coomes@railamerica.com

PLEASE CHECK LOCATION OF  
OPEN HOUSE YOU ATTENDED:

Phillipsburg  
 Wichita

Your comments on the Short Line Railroad Program are appreciated and will be considered. Please write your comments below and mail or fax to the address or number indicated. COMMENTS MUST BE RECEIVED BY AUGUST 10, 2005. Fold comment sheet in half, staple and include postage before mailing. Thank you.

The requirement that a Railroad who leases line from Class I Railroads cannot access the program without a lien agreement from the Class I makes it very difficult for us to fully participate in the program.

Kyle currently has a 20 year lease on 185 miles of MP/UP line with a subsequent 3 additional automatic 20 year renewals. Furthermore the UP lines are the only Easterly route for Kyle traffic to access the UP. That gateway is not something that we or the UP is going to give up. Like all shortlines we need funds to rehab this portion of our line too. However the difficulty in finding someone or somebodys within the Class I's organization to allow the State to place a lien against there property is a huge challenge to say the least.

I understand the State needs to insure a certain level of commitment from the Railroad before spending taxpayers money but I believe the 70% the Railroad commits should be adequate. Certainly if the lease arrangements were not in the form of long term commitments or were potentially volatile, there could be some reasonable restriction implemented but in cases such as ours were it is quite obvious the Shortline can't survive without the track and the Class I doesn't want it back, there should be some level of compromise allowed

SC

## APPENDIX E

### GLOSSARY OF TERMS

## APPENDIX E: GLOSSARY OF TERMS

### **AAR**

Association of American Railroads

### **Ballast**

Crushed rock or gravel used in railroad beds as a foundation for the tracks to provide for drainage and to distribute the load. The ballast is firmly tamped around the ties to prevent movement and to maintain correct track alignment.

### **Class I Railroads**

Railroad carriers with annual gross revenues of \$250 million or more

### **Class III Railroads**

Railroad Carriers with annual gross revenues of less than \$20 million

### **Comprehensive Highway Program (CHP)**

Created by Kansas House Bill 2071 and designed to address multi-modal transportation needs in Kansas.

### **Crossover**

Two switches (turnouts) on parallel tracks that allow a train to move from one track to another

### **Crossties (or Ties)**

Crossties are made of timber or concrete and rest on ballast and directly support the rail that is attached to the ties, either by spikes or rail anchors.

### **FHWA**

Federal Highway Administration

### **FRA**

Federal Railroad Administration

### **Industry Track**

A privately owned rail siding used by an industry

### **Jointed Rail**

Normally 39 feet in length with sections fastened by bolted joint bars.

### **Rail**

Heavy steel bars that lay parallel, supported by railroad ties, connected by metal plates and fasteners, providing conveyance for rail cars and locomotives. Weight is measured in pounds per yard; i.e. 115 pound rail weighs 115 pounds for every three feet of length.

### **Rationalization**

The justification of the need to retain a section of a railroad's network as a part of that particular railroad's network. Justifying the downsizing a railroad's network, either through abandonment or sale/lease to a short line.

**Regional Railroads**

Generally refer to Class II Railroads (annual gross revenues of less than \$250 million and Greater than \$20 million)

**Rehabilitation**

Upgrading railroad infrastructure to include tie and ballast replacement, surface improvements, and other track materials.

**Shipper**

A business that either uses the railroad to ship its goods or products to its customers, or to bring materials or products for that business's use.

**Short Line Railroad**

Generally refers to Class III railroads

**Shuttle Trains**

104 to 110 car unit trains moving grain from high capacity/high speed loading facilities to one destination.

**Slow Orders**

Orders to locomotive engineers requiring reduced train operating speeds. These restrictions are imposed due to inadequate rail or tie conditions on a specific section of deficient railroad track. Safe track speeds are based on FRA Track Safety Standards.

**State Rail Service Improvement Fund (SRSIF)**

Created by the CTP to provide short line railroads operating in Kansas with low-interest, 10-year revolving loans to be used primarily for track rehabilitation.

**Surfacing**

The surface condition of the railroad track relating to vertical evenness or smoothness. This mechanized surfacing activity is conducted to properly align the rails following tie and ballast improvements.

**Team Track**

A public siding used by industries that do not have their own siding

**Turnout (switch)**

Turnouts or switches consist of switch points which are moved to direct trains between two tracks.

**Unit Trains**

Trains made up of a single car type carrying a single commodity (i.e. coal) traveling to a single destination

**Welded Rail**

Continuous lengths or "strings" of rail welded together to eliminate the joints

APPENDIX F

APPENDIX TO CHAPTER 2.0  
FHWA OFFICE OF FREIGHT MANAGEMENT AND  
OPERATIONS

KANSAS STATE PROFILE

## APPENDIX TO CHAPTER 2.0

### FHWA OFFICE OF FREIGHT MANAGEMENT AND OPERATIONS

### KANSAS STATE PROFILE<sup>38</sup>

The top commodities shipped to/from/within Kansas in 1998 are shown in Table F-1. In terms of tonnage, Farm Products with 80 million tons shipped constituted the largest share of commodities shipped. Through 2020, Food/Kindred Products are projected to have the highest growth rate, 6.22 percent. In terms of revenue, Food/Kindred Products and Transportation Equipment have the highest value quotients.

**Table F-1**  
**Top Commodities Shipped To/From/Within Kansas**

Commodity	Tons (millions)			Value (billions \$)		
	1998	2020	CAGR	1998	2020	CAGR
Farm Products	80	108	2.53%	27	43	2.14%
Food/Kindred Products	32	66	6.22%	29	98	5.69%
Nonmetallic Minerals	31	43	2.76%	-	-	-
Petroleum/Coal Products	22	27	1.72%	-	-	-
Secondary Traffic <sup>39</sup>	15	44	9.38%	15	67	7.04%
Transportation Equipment	-	-	-	29	64	3.66%
Chemicals/Allied Products	-	-	-	14	35	4.25%

According to FHWA's Office of Freight Management and Operations, in 1998 Kansas railways accounted for 23 percent of total tonnage and 9 percent of total freight value. Kansas rail, in terms of tonnage and value is projected by FHWA to maintain its modal share through 2020 (Table F-2).

**Table F-2**  
**Freight Shipments – Kansas**

	Tons (millions)			Value (billions \$)		
	1998	2010	2020	1998	2010	2020
State Total	248	342	410	162	297	457
Rail	58	80	98	15	26	39
Rail (as a % of Total)	23%	23%	24%	9%	9%	9%

<sup>38</sup> US Department of Transportation, Federal Highway Administration, Freight Management and Operations, Office of Operations, "State Profile – Kansas", [http://ops.fhwa.dot.gov/freight/freight\\_analysis/state\\_info/kansas/profile\\_ks.htm](http://ops.fhwa.dot.gov/freight/freight_analysis/state_info/kansas/profile_ks.htm), 9-28-05 (as derived from FHWA's Freight Analysis Framework data)

<sup>39</sup> Secondary traffic is defined as freight flows to and from distribution centers or through intermodal facilities. No commodities are assigned to this intermediate step in the transportation process.