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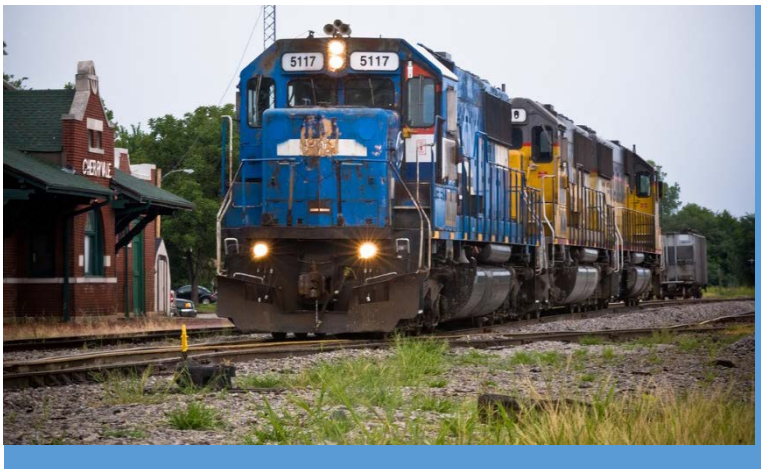

Profile of Short Line Railroads in High Grain Production States (Summary)

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WHAT IS THE ISSUE AND HOW DOES THE STUDY ADDRESS IT?

The term "short line" refers to all Class II and III railroads. Historically, they have played an important role in the transportation of agricultural products. The purpose of this study was to assess the state of the short line railroad industry and its role in the grain logistics system. Specific objectives for the study included: (1) developing a list of Federal and State short line assistance programs, including their costs and benefits, (2) surveying the operating characteristics of short line railroads, (3) assessing the characteristics of short line agricultural carload traffic, and (4) identifying managers' perceptions on which service characteristics are most important in determining short line success.

HOW WAS THE STUDY CONDUCTED?

The methodology involved personal interviews and surveys of executives of short line railroads and State Departments of Transportation (DOT) railroad personnel from seventeen States (see Table 1 of the full study). The study area was selected on the basis of large crop production and geographic diversity. There was at least one agriculturally-oriented short line in each of these States. In cases where a short line owned other short lines, each was counted separately. As a result, the sample included forty-seven agriculture-oriented short lines.

In the summer of 2016, personal interviews of short line personnel were conducted in Kansas, Oklahoma, Missouri, Nebraska, Iowa, and Illinois. The rest of the sample short lines were contacted by phone. Eighty-six percent of the railroads contacted completed a detailed survey.

DOT personnel from the seventeen States were contacted by phone. Fourteen of them completed a separate survey that included questions on the characteristics of the State short line assistance programs. Questions on eligibility requirements, benefits and costs, and the impact of short line assistance programs on short line profitability and rural economic development were also included.

Although they were among the seventeen states selected, South Dakota, Missouri, and Texas did not have railroad assistance programs and therefore did not complete the survey.

WHAT DID THE STUDY FIND?

The paper describes the details of fourteen state-level, short line railroad assistance programs. Program details such as eligibility requirements, funding limits, and funding instruments (i.e. loans or grants), varied significantly across the high grain production States. Survey responses from DOT personnel in those States suggested that State assistance had enabled short line railroads to upgrade and repair track and bridges, add to Class I track connections, improve safety, improve efficiency, and preserve service.

The study provided a range of descriptive statistics for the sampled short lines. Most of the sampled short lines had fewer than one hundred employees and less than three hundred miles of track. However, a few large short lines accounted for the majority of total employment and total track miles across the sample. Fourteen of the sampled railroads said 100 percent of their track could handle 286k-pound cars, while eleven said less than 50 percent of their track could handle the heavier cars. In total, 66 percent of the total short line track miles in the sample were 286k-pound ready.

The study also examined characteristics of agricultural carload data for four types of traffic by commodity—originated, terminated, local, and overhead, which are outlined here:

1. Originated – Carload shipments of a commodity loaded on a respondent's railroad that have not had previous rail transportation and which terminate on another railroad.

2. Terminated – Carload shipments of a commodity that originated on another railroad but are unloaded off the respondent's railroad with no further rail transportation to follow.

3. Local – Carload shipments of a commodity that both originate and terminate on a respondent's railroad.

4. Overhead – Carload shipments of a commodity that both originate and terminate on other railroads but that are carried by the respondent's railroad in between.

Originated traffic represents the majority of short line agricultural traffic. Of the total carload traffic moving by short line railroad in 2015, there were 273,317 originated carloads. There were also 54,584 terminated carloads, 38,263 local carloads, and 90,358 overhead carloads.

In 2015, the majority of agricultural short line traffic was concentrated in a few commodities. For originated traffic, corn, soybeans, wheat, and distillers dried grains with solubles (DDGS) account for 95 percent of carloads, with corn comprising 43 percent of the total. For terminated traffic, corn, wheat, and fertilizer accounted for nearly 90 percent of carloads, with corn comprising 46 percent of the total. For local traffic, corn, wheat, and soybeans collectively accounted for nearly all carloads, with corn comprising 65 percent of the total. For overhead traffic, corn, wheat, sorghum, and oats accounted for 62 percent of carloads.

The study and survey assessed various aspects of competition in the short line industry. The survey asked short lines about their dependence on Class I railroads for locomotives and railcars. The majority of the sampled short lines were "not dependent" on Class I railroads for locomotives, but half the short lines said they were "very dependent" on Class I's for rail cars. Managers of sampled short lines cited

motor carriers as competition, more often than other modes of transport, for all four carload traffic types. The commodities most subject to intermodal competition were corn, wheat, and soybeans for originated traffic; corn, wheat, and fertilizers for terminated traffic; corn, wheat, and soybeans for local traffic; and wheat and corn for overhead traffic.

In the survey, managers answered four open ended questions about competition facing short line railroads and were evenly split on whether changes in the grain logistics system (e.g., the increased use of Class I shuttle trains) strengthened or threatened their railroad's competitiveness. For example, managers of short lines were asked whether their agricultural traffic will increase or decrease if current trends continue (i.e. focus on shuttle trains and increased ethanol production). Only six railroads expected their agriculture-related traffic to decrease, while eighteen railroads expected an increase, and seventeen expected no change. In addition, the sampled short line managers were asked if Class I railroad policy (i.e. shuttle train loaders) affected competition between trucks and short lines. Of the thirty-nine short lines that answered the survey question, 77 percent "agreed" that Class I policy affected competition between trucks and short lines.

Lastly, the study assessed the effect of various factors on short line success. Short line managers were asked how other transportation modes were becoming more of a challenge to short line success. They pointed to lower truck fuel prices and, thus, lower truck rates. Also, increased truck size and weight were frequently mentioned. The short lines mentioned that shuttle trains on Class I railroads have resulted in increased trucking to these locations instead of increased short line shipments. The study included a profile of successful (profitable) short lines based on survey responses from short line managers. Collectively, they chose strong shipper support levels as the single most important factor, followed by adequate traffic levels and access to more than one connecting carrier.

CONCLUSIONS

There have been few studies that seek to identify the determinants of a profitable short line railroad or that focus on the relationship between short line railroads and agriculture. This study documents the state of the short line industry and its relationship to the grain logistics system. It concluded that short line railroads are economically significant to the agricultural industry and that, from a public perspective, short lines are underinvesting in capital for infrastructure and equipment due to insufficient funds. In light of the benefits described by DOT personnel, the study indicated that assistance programs are valuable and States that do not currently have them could benefit from them. Future research is needed to conduct a deeper assessment of the competition between short lines and trucks, as well as research to better understand the role of multi-short line holding companies.

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