

**EFFECTS OF RAIL CONTRACT RATES ON  
NORTH DAKOTA AND MINNESOTA  
COUNTRY GRAIN ELEVATORS**

**By**

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NORTH DAKOTA AND MINNESOTA  
COUNTRY GRAIN ELEVATORS  
PREPARED FOR THE**

**OFFICE OF TRANSPORTATION ANALYSIS  
INTERSTATE COMMERCE COMMISSION**

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## PREFACE

This paper is an expanded version of a report submitted to the Office of Transportation Analysis, Interstate Commerce Commission regarding the competitive impacts of rail rate contracts on country grain elevators. The project was conducted concurrent with similar studies in several other grain producing states.

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## CONTENTS

	<u>Page</u>
Introduction. . . . .	1
The North Dakota/Minnesota Grain Transportation Network. . . . .	2
Grain Transportation Rates in North Dakota/ Minnesota. . . . .	4
The North Dakota/Minnesota Country Elevator Network. . . . .	7
Grain Pricing at Country Elevators. . . . .	10
Grain Shipments and the Effects of Rail Contracts . . .	11
Survey of Grain Shippers. . . . .	13
Summary of Survey Results . . . . .	23
Perceptions of Grain Buyers . . . . .	27
Appendix A. . . . .	i
Appendix B. . . . .	.iii

## INTRODUCTION

The importance of transportation to North Dakota and Minnesota is certainly not a new topic of discussion. Commercial production agriculture did not develop until the railroads constructed their networks across the northern Great Plains. Today, both states are highly dependent on their transportation systems due to the relatively low population in the northern plains, the huge surplus of raw agricultural commodities produced, and proximity to markets (Figure 1). In the 1984-85 crop year, North Dakota alone shipped over 520 million bushels of grains and oilseeds to first market destinations such as Duluth, Minneapolis and the Pacific Northwest (PNW). In addition, a significant amount of wheat, sunflower and barley are shipped to area processing plants.



Figure 1. North Dakota's Location Relative to Major Grain and Oilseed Market Destinations.

North Dakota is a significant producer of several agricultural commodities. The state ranks first in the production of spring wheat, durum wheat, barley, flaxseed and sunflower, and second in production of all wheat and pinto beans. Minnesota ranks in the top five states in the United States in production of corn, all wheat, spring wheat, oats, barley, sunflower, potatoes, sugarbeets, flax, and rye. A significant proportion of all of these commodities are exported from each state (or shipped worldwide) making an effective transportation network critical to the economic health of the region.

#### THE NORTH DAKOTA/MINNESOTA GRAIN TRANSPORTATION NETWORK

The North Dakota and western Minnesota country grain marketing system is served by two modes of transportation. Railroads and trucks compete for grain traffic to the major terminal markets shown in Figure 1, as well as to processing plants and various miscellaneous markets out of state. North Dakota is served by three railroads: the Burlington Northern (BN); the Soo Line; and the Dakota, Minnesota and Eastern, a newly formed short line (Table 1).

TABLE 1. TRACK MILES OF NORTH DAKOTA RAILROADS, 1985.

Serving Railroad	North Dakota Track Miles		
	Main	Branch	Total
Burlington Northern	1,210	1,999	3,209
Soo Line	353	903	1,256
Dakota, Minnesota and Eastern	<u>0</u>	<u>14</u>	<u>14</u>
TOTAL	1,563	2,916	4,479

These railroads serve virtually all areas of the state. In addition to the railroads, North Dakota's country elevators are served by hundreds of exempt motor carriers who compete with each other and with the railroads for grain traffic.

Railroads have historically held the dominant share of grain traffic from North Dakota, although trucks did ship 41 percent of all grains and oilseeds from the state in the 1978-79 crop year (Table 2). Since then, the railroads have steadily gained market share, and hold a 74% share in the most recent crop year (1985-86).

The western Minnesota wheat and barley producing region is served by a transportation network similar to North Dakota's. The Burlington Northern and Soo Line Railroads are the predominant rail carriers in the region, while the remainder of the state is additionally served by the Chicago-Northwestern and several short lines. No current market share data are available

TABLE 2. HISTORICAL GRAIN SHIPMENTS AND MODAL SHARE FROM NORTH DAKOTA.

Crop Year	Total Shipments (thousand bushels)	Modal Share	
		Rail	Truck
		-----%-----	
1976-77	305,912	67	33
1977-78	358,604	66	34
1978-79	456,233	59	41
1979-80	476,065	62	38
1980-81	401,085	63	37
1981-82	461,862	69	31
1982-83	491,671	69	31
1983-84	538,818	73	27
1984-85	521,039	73	27
1985-86	478,391	74	26

for Minnesota. However, trucks are generally thought to be more competitive than in North Dakota due to Minnesota's proximity to the Duluth and Minneapolis markets. In addition, Minnesota has access to barge transport on the Mississippi River (beginning at Minneapolis), providing a competitive alternative to truck or rail shipment to southern destinations such as the Gulf ports.

GRAIN TRANSPORTATION RATES IN  
NORTH DAKOTA/MINNESOTA

Railroads and trucks compete for grain traffic in North Dakota and Minnesota based primarily on the price that each



charges for its services. Railroads generally set their rates based on demand for their services and the degree of inter- and intramodal competition. Truckers are generally thought to be price-followers and set their rates based on the prevailing rail rate.

The most significant change in grain transportation rates in the northern plains occurred in 1980 when the Burlington Northern introduced multi-car and trainload rates to the Pacific Northwest. Prior to this only single car rates were available to area country grain shippers. Since 1980, multi-car and trainload rates have been implemented by both the BN and Soo Line to all of North Dakota's major markets. Current rail rates from several North Dakota and Minnesota origins to major market destinations are presented in Table 3.

TABLE 3. SINGLE AND MULTI-CAR BURLINGTON NORTHERN RAIL RATES FROM SELECTED NORTH DAKOTA AND MINNESOTA ORIGINS TO MAJOR MARKET DESTINATIONS, DECEMBER 1986.<sup>a</sup>

Origin	Destination	
	Minneapolis	Pacific Northwest
Carrington, ND	96-93-83-77	221-165-155-140
Oakes, ND	71-67-57-52	221-165-155-140
Minot, ND	127-123-112-107	221-165-155-140
Warren, MN	69-65-56-50	221-207-199-184
Bagley, MN	63-60-51-46	221-207-199-184

<sup>a</sup>Four rates are presented for each origin-destination pair and represent single, 3 car, 26 car, and 52 car rates to Minneapolis. Rates to the Pacific Northwest are single, 26 car multi-origin, 26 car single origin, and 52 car rates.

Source: ICC Freight Tariff BN 4022-E.

As shown in Table 3, rail rates to Minneapolis differ by origin. Differences in rail rates among origin stations are generally reflective of distance. Rates to the Pacific Northwest, however, are identical from all stations within each state ("blanket" rates). The rate differences among service levels at a particular station are of critical importance to the country elevator industry. For example the "spread" between the single car and 26-car rate will determine the economic feasibility of shipping in single versus 26-car lots. As this spread widens (i.e., the difference between the 26 car rate and single car rate becomes greater) the incentive to ship in 26 car lots increases. From Carrington to Minneapolis, the single car rate is 96¢/hundredweight (cwt.) while the 26 car rate is 83¢/cwt., or a spread of 13 cents. The elevator at Carrington is therefore offered an incentive of 13 cents per cwt. to ship in 26 car lots rather than single car lots. The decision to be made by the elevator manager is, therefore, whether the costs of shipping in multi-car trains is justified by this spread. Some of the costs which may be involved are facility and machinery upgrading, trackage construction, and costs of accumulating grain inventories. The extent to which this upgrading has occurred is covered later in this report.

In addition to rail shipments from North Dakota and Minnesota, country elevators also utilize the services of many motor carriers to haul grain. Rates charged by truckers are exempt from regulation and are negotiated between the trucker and

country elevator management. The rate agreed upon is substantially affected by the prevailing rail rate utilized by the elevator. Both the rail and truck modes have inherent advantages other than price in grain shipment. However, if any significant price difference between rail and truck shipment is in effect, the elevator manager will generally choose the less expensive mode. In general, motor carriers will offer to ship grain for approximately the elevator's prevailing rail rate as long as that rate covers his marginal cost of providing the service.

The availability of backhauls is a significant factor in determining the level of truck rates and the availability of carriers willing to haul grain. A carrier who is able to obtain backhaul revenue will be more willing to agree to a particular grain shipment and may do so at a lower rate. In fact, many grain truckers will not initiate a grain shipment without some reasonable assurance that his return trip will be loaded. Backhauls are easier to procure if the carrier owns equipment amenable to both grain and other types of shipments.

#### THE NORTH DAKOTA/MINNESOTA COUNTRY ELEVATOR NETWORK

The focal point of the country grain marketing system in North Dakota and Minnesota is the country grain elevator. These elevators have long served their primary role as consolidators of

farmer-delivered grains for reshipment and sale into terminal markets. In addition to consolidating grain into larger lots, these elevators also serve as farmer service centers, providing inputs such as fertilizer, seed and chemicals, and services such as grain drying and fertilizer application. Country elevator numbers in North Dakota have been declining since the early 1900's (Table 4). While at one time over 2,000 elevators dotted the landscape, currently the number stands at 577 (1985). Concurrent with the reduction in numbers has been an increase in average storage capacity and volume handled. Minnesota also has experienced reductions in elevator numbers. In 1945 the state had over 1,200 elevators while currently only about 830 stations serve the state's farmers.

TABLE 4. NUMBER OF LICENSED COUNTRY GRAIN ELEVATORS, AVERAGE STORAGE CAPACITY AND AVERAGE VOLUME HANDLED, NORTH DAKOTA.

Year	Licensed Elevators	Average Storage Capacity	Average Volume Handled
		-----bushels-----	
1915	2,031	30,000	--
1922	1,832	30,000	--
1952	936	68,000	--
1964	789	159,000	--
1969	663	188,000	460,000
1973	636	207,000	647,000
1977	600	229,000	598,000
1980	592	263,000	678,000
1982	578	288,000	851,000
1984	563	316,000	925,000
1985	577	345,000	801,000

The introduction of multi-car and trainload rail rates in the northern plains led to the development of "subterminal" elevators in the state.<sup>1</sup> Country elevators generally lacked the physical capabilities to load the larger trains, and therefore a great deal of construction and upgrading of facilities occurred. This consisted of adding storage capacity, upgrading internal machinery (load out equipment, etc.) and adding rail trackage for rail car storage. Since 1980, almost 150 elevators in North Dakota have developed the capability to load 26 or 52 car trains and access the associated rail rates (Table 5). Similar structural changes have occurred in the wheat and barley producing region of Minnesota. However, no specific data are available regarding the number of subterminal elevators.

TABLE 5. NUMBER OF SUBTERMINAL ELEVATORS, NORTH DAKOTA, 1980-85.

Year	Number of Subterminal Elevators
1980	0
1981	52
1982	63
1983	71
1984	124
1985	147

<sup>1</sup>For purposes of this report, a subterminal is defined as an elevator which has the capability to load and has shipped a 26 or 52 car train under the applicable tariff requirements. The remaining elevators are simply termed "country elevators."

Another major structural change in the elevator system which has occurred recently is the development of the "subterminal-satellite" cooperative. Under this arrangement, several local country elevators merge together under centralized management and collectively ship grain through the cooperative's subterminal station. Grain is typically trucked from the outlying "satellite" station to the subterminal for subsequent trainload rail shipment. The advantage of this type of arrangement is that several local elevators can cooperatively benefit from the unit train rail rate savings. One of the major disadvantages is the additional trucking costs associated with the satellite to subterminal shipment. Also, trucking grain among local elevators has had a substantial negative impact on some local roads. The result of this merger/consolidation activity is that a large number of multi-plant firms have evolved whereby central management controls the activities of many local elevators, as well as directing the shipment of large volumes of grain.

#### GRAIN PRICING AT COUNTRY ELEVATORS

Grain prices are established by supply and demand conditions at terminal markets such as Minneapolis and Chicago. Prices at any place in the country are reflective of these terminal market prices, adjusted by transportation and handling charges. For example, a hypothetical price for wheat in Carrington, North Dakota could be determined as follows:

Minneapolis Terminal Market Price	\$3.00 per bushel
Minneapolis Commission Firm Margin	.03
Rail Rate	.50
Country Elevator Margin	<u>.08</u>
Country Elevator Price (price offered to farmers)	\$2.39 per bushel

The price offered to farmers is roughly calculated as the Minneapolis terminal market price (\$3.00) less commission firm margin (\$.03), rail transport (\$.50) and country elevator margin (\$.08), leaving a farmer price of \$2.39/bushel in this hypothetical example. This calculation is complicated by various storage and merchandising factors, but the general pricing mechanism is terminal market price less freight costs and margins. Because the freight costs represent a major proportion of the difference between the Minneapolis and country elevator price, it is apparent that a contract rate which is different than the above published tariff rate can significantly impact country grain prices. If one elevator is able to negotiate a favorable contract rate (thereby offering farmers a higher price) while nearby stations must ship under the higher tariff rate, a substantial competitive disparity may result.

#### GRAIN SHIPMENTS AND THE EFFECTS OF RAIL CONTRACTS

Grains and oilseeds produced in North Dakota are shipped to a variety of destinations, however three terminal markets comprise 73 percent of all shipments from North Dakota to first market destinations (Table 6). The terminal and export markets

TABLE 6. NORTH DAKOTA GRAIN AND OILSEED SHIPMENTS, BY DESTINATION, THREE YEAR AVERAGE, 1982-83 TO 1984-85.

Destination	Three Year Average Volume Shipped (thousand bushels)	Percent of Total
Minneapolis/St. Paul	131,645	25%
Duluth/Superior	191,889	37%
Pacific Northwest	55,148	11%
Other	<u>138,493</u>	<u>27%</u>
TOTAL	517,176	100%

of Minneapolis/St. Paul, Duluth/Superior and the Pacific Northwest ports have traditionally been North Dakota's primary markets for agricultural commodities. The markets of Duluth/Superior and Pacific Northwest are generally export markets, although some grains are occasionally shipped from these terminal facilities to processors or feedlots. The Minneapolis/St. Paul market has traditionally been a domestic market, originally developed around the region's wheat milling industry. In addition, Minneapolis serves as a transfer point for barge shipments on the Mississippi River.

No specific grain shipment data are available from the wheat and barley producing region of central and northwestern Minnesota. However, because of the location of this producing region relative to the Duluth and Minneapolis markets, a large share of the grains are shipped to these eastern markets rather than to western destinations.



The fastest growing of the market destinations shown in Table 6 is the "other" category, which constitutes all shipments not going to North Dakota's three major markets. The primary other markets include in-state processors, the southwest and west-central states, and Gulf ports. This growth may be attributed to many factors including the recent establishment of sunflower processing in North Dakota, the implementation of multi-car and trainload rail rates from North Dakota to southern and western markets, rail contract rate flexibility, and the overall lower level of rail rates in the past three to five years. Rail contract rate activity may have affected shipment levels into these new markets by providing a higher degree of flexibility in rate-making to meet more immediate supply/demand conditions. Contracts for specific shipments may be particularly useful when considering specific quality needs for millers or maltsters, when addressing intra-modal competition to a port or processor, or to keep customers competitive with neighboring elevators.

#### SURVEY OF GRAIN SHIPPERS

A survey of country elevators in North Dakota and Minnesota was conducted in order to solicit views on competitive effects of rail rate contracts. The elevator survey comprised the entire state of North Dakota and the wheat and barley producing region of central and northwestern Minnesota. The survey instrument was mailed to 323 elevators in North Dakota and to 219 Minnesota

elevators. A summary of the number of questionnaires mailed and returned is presented in Table 7. Copies of the survey instruments are presented in Appendix A.

TABLE 7. SUMMARY OF THE NUMBER OF QUESTIONNAIRES MAILED TO AND RETURNED FROM NORTH DAKOTA AND MINNESOTA ELEVATORS.

State	Number of Questionnaires				
	Mailed	Returned	Usable	% Returned	% Usable
North Dakota	323	212	211	66%	65%
Minnesota	<u>219</u>	<u>90</u>	<u>82</u>	41%	37%
TOTAL	542	302	293	56%	54%

In addition to the mail survey, follow-up telephone calls were made to gain further insight into contracting activity by country elevators and its impact on the competitive structure of the industry. Telephone calls were also made to buyers of upper midwest grains who may also be contracting and may also impact the country grain elevator industry. These buyers consisted of grain commission firms, major grain companies and processors. Results of the survey are presented below, followed by a more subjective summary and analysis of responses gathered via telephone conversations with grain shippers and buyers.

A high proportion of grain elevator managers responding to the survey had some experience with railroad rate contracts (Table 8). Seventy-nine percent of all respondents had been involved in some type of rail contracting, while 21 percent had not shipped grain under rail contract.

TABLE 8. FREQUENCY OF CONTRACTING EXPERIENCE, NORTH DAKOTA AND MINNESOTA GRAIN ELEVATORS.

State	Had Contracting Experience		Total
	Yes <sup>a</sup>	No	
North Dakota	162	49	211
Minnesota	<u>69</u>	<u>13</u>	<u>82</u>
TOTAL	231 (79%)	62 (21%)	293

<sup>a</sup>Includes shippers who had negotiated their own contract and those who believed they had shipped grain under a buyer's rail contract.

Country elevator managers were asked if they had negotiated their own contract with railroads and how this contracting had affected several aspects of their operation. First, managers were asked to evaluate how contracting had influenced their competitive position relative to surrounding elevators. As shown in Table 9, elevator managers, who were able to negotiate a contract felt strongly that contracts had a positive impact on their competitive position.

TABLE 9. COUNTRY ELEVATOR MANAGER ATTITUDES ON RAIL CONTRACTS RELATIVE TO FIRM'S COMPETITIVE POSITION

Negotiated Own Contract	Impact on Competitive Position		
	Positive No. (%)	Negative No. (%)	No Impact No. (%)
Yes	63 (56%)	21 (19%)	29 (26%)
No	<u>25</u> (17%)	<u>96</u> (66%)	<u>25</u> (17%)
TOTAL	88 (34%)	117 (45%)	54 (21%)

Fifty-six percent of those who had negotiated a contract felt that it had affected their position positively, while 19 percent felt there was a negative impact. Twenty-six percent stated there had been no impact on competitive position. Those managers who had not negotiated their own contract felt strongly that contracting activity impacted their firm negatively. Sixty-six percent of the respondents felt that contracts had hurt their firm, while 17 percent of the managers felt they had benefited from contracts. The remaining 17 percent felt there was no impact on their competitive position.

Similar results were found when elevator managers were asked to comment on the effects of rail contracting on elevator annual volume (Table 10). For those who had been successful in negotiating a rail contract, contracts were thought to have had a positive impact on volume, while those who had not contracted individually with the railroad felt strongly that their volume had been negatively impacted by contracts.

TABLE 10. COUNTRY ELEVATOR MANAGER ATTITUDES ON RAIL CONTRACTS RELATIVE TO IMPACTS ON ANNUAL GRAIN VOLUME.

Negotiated Own Contract	Impact on Volume					
	Higher		Lower		No Change	
	No.	(%)	No.	(%)	No.	(%)
Yes	52	(45%)	20	(17%)	44	(38%)
No	<u>12</u>	(8%)	<u>94</u>	(60%)	<u>50</u>	(32%)
TOTAL	64	(24%)	114	(42%)	94	(35%)

Rail contracts may have an impact on prices paid to farmers at country elevators if rail rate savings are passed on in the form of higher grain prices to attract higher volume to the contracting elevator. Elevator managers were asked to comment on both whether they thought prices to farmers had changed as a result of contracts, as well as the amount per bushel they thought could be attributed to contract activity. As shown in Table 11, those managers who had negotiated contracts indicated that farmer prices were most often higher because of contracts, while those who had not negotiated contracts had rather mixed feelings about their impact on farmer prices. Although managers not contracting could be expected to have generally negative feelings about rail contracts and their effects on elevators and farmer-patrons, one factor may explain the perceived higher farmer prices even at those elevators not involved in contracting. Many managers who had not been contracting felt competitive pressure from surrounding elevators who had been contracting. This pressure forced those non-contracting elevators to also raise their farmer prices to meet the competition and attract grain. This price increase often came at the expense of the elevator's margin, thereby benefiting farmer-patrons but injuring the elevator's profitability.

Additionally, managers were asked to estimate the amount per bushel that farmers were being impacted by rail contracts. Managers who felt that farm prices were positively impacted estimated an average of 7.6 cents per bushel gain, while those

TABLE 11. COUNTRY ELEVATOR MANAGER ATTITUDES ON RAIL CONTRACTS  
RELATIVE TO IMPACTS ON FARMER PRICES.

Negotiated Own Contract	Impact on Farmer Prices					
	Higher		Lower		No Change	
	No.	(%)	No.	(%)	No.	(%)
Yes	75	(66%)	8	(7%)	31	(27%)
No	<u>41</u>	(29%)	<u>38</u>	(27%)	<u>62</u>	(44%)
TOTAL	116	(45%)	46	(18%)	93	(36%)

who felt that prices were lowered estimated an average of 10.8 cents per bushel lower price to farmers. It should be noted that many more managers felt that prices were increased due to contracts than decreased.

Elevator managers generally had similar opinions regarding utilization of destination or buyer contracts. Higher volume elevators were much more frequent users of destination contracts, and managers using these contracts felt that farm prices had been positively affected by their use. Managers had mixed feelings about destination contracts' impact on competition in their area and their impact on elevator volume. Results of the mail survey relative to destination contracts are presented in Appendix B.

One question among the agricultural community is whether or not rail contracting is utilized by all shippers across the broad spectrum of country elevator sizes. According to results of the survey, a higher proportion of larger country elevators had negotiated their own contracts than their smaller counterparts (Table 12). Eighty percent of the shippers in the largest volume

category (greater than 3 million bushels handled per year) had contracted individually with a railroad, while only 31 percent of the smallest volume category had negotiated individual contracts.

TABLE 12. FREQUENCY OF CONTRACTS NEGOTIATED BY SIZE OF ELEVATOR.<sup>a</sup>

Annual Volume (million bushels)	Negotiated Own Contract			
	Yes	(%)	No	(%)
0 - .75	33	(31%)	73	(69%)
.76 - 1.50	33	(43%)	44	(57%)
1.51 - 3.00	26	(57%)	20	(43%)
>3.00	24	(80%)	6	(20%)

<sup>a</sup>Size of elevator is measured in average annual volume over a 2-year period.

In addition to higher utilization of individual rail contracts, managers of larger elevators also felt that contracting benefited their competitive position (Table 13). This was especially true for the elevators in the largest volume category.

TABLE 13. COMPETITIVE EFFECTS OF RAIL CONTRACTS, BY SIZE OF ELEVATOR.

Annual Volume (million bushels)	Effect on Elevator Competitive Position					
	Positive		Negative		No Change	
	No.	(%)	No.	(%)	No.	(%)
0 - .75	28	(25%)	62	(56%)	20	(18%)
.76 - 1.50	23	(27%)	46	(53%)	17	(20%)
1.51 - 3.00	25	(51%)	13	(27%)	11	(22%)
>3.00	<u>20</u>	(65%)	<u>3</u>	(10%)	<u>8</u>	(26%)
TOTAL	96	(35%)	124	(45%)	56	(20%)

Larger elevators also reported that contracting had a positive impact on their grain volume (Table 14). This was presumably due to higher farmer prices offered by the elevator made possible by the rail contract.

TABLE 14. EFFECTS OF RAIL CONTRACTS ON VOLUME, BY SIZE OF ELEVATOR.

Annual Volume	Effect on Elevator Grain Volume					
	Higher		Lower		No Change	
	No.	(%)	No.	(%)	No.	(%)
(million bushels)						
0 - .75	14	(13%)	63	(57%)	34	(31%)
.76 - 1.50	14	(16%)	47	(54%)	26	(30%)
1.51 - 3.00	23	(47%)	9	(18%)	17	(35%)
>3.00	<u>20</u>	(63%)	<u>2</u>	(6%)	<u>10</u>	(31%)
TOTAL	71	(25%)	121	(43%)	87	(31%)

Managers of larger elevators did report that farmers benefited from rail contracts in the form of higher grain prices, although all volume categories, including smaller elevators, also reported higher farmer prices due to rail contracts (Table 15).

TABLE 15. EFFECTS OF RAIL CONTRACTS ON PRICES PAID TO FARMERS, BY SIZE OF ELEVATOR.

Annual Volume	Effect on Farmer Prices					
	Higher		Lower		No Change	
	No.	(%)	No.	(%)	No.	(%)
(million bushels)						
0 - .75	34	(31%)	23	(21%)	51	(47%)
.76 - 1.50	43	(51%)	16	(19%)	26	(31%)
1.51 - 3.00	27	(56%)	7	(15%)	14	(29%)
>3.00	<u>25</u>	(81%)	<u>1</u>	(3%)	<u>5</u>	(16%)
TOTAL	129	(47%)	47	(17%)	96	(35%)



Due to the contract terms specifying minimum volumes or trainload shipments, it may be expected that trainload shippers are more prone to contracting than single car shippers. According to survey respondents, a higher proportion of train loading elevators (56%) had been contracting individually with railroads, while over 33% of the single car shippers had negotiated individual contracts (Table 16).

TABLE 16. FREQUENCY OF INDIVIDUAL ELEVATOR SHIPPER RAIL CONTRACTING, BY TYPE OF SERVICE LEVEL USED.

Service Level	Negotiated Own Contract			
	<u>Yes</u>		<u>No</u>	
	No.	(%)	No.	(%)
Trainload Shipper	68	(56%)	53	(44%)
Non-Trainload Shipper	<u>48</u>	(33%)	<u>98</u>	(67%)
TOTAL	116	(43%)	151	(57%)

Trainloading elevators were also more inclined to believe that contracting had positively influenced their competitive position, annual volume, and prices paid to farmers relative to the single car shippers (Tables 17, 18, and 19).

TABLE 17. IMPACTS OF INDIVIDUAL RAIL CONTRACTING ON ELEVATOR COMPETITIVE POSITION BY TYPE OF SERVICE LEVEL USED.

Service Level	Impact on Elevator Competitive Position					
	<u>Positive</u>		<u>Negative</u>		<u>No Change</u>	
	No.	(%)	No.	(%)	No.	(%)
Trainload Shipper	57	(44%)	43	(33%)	31	(24%)
Non-Trainload Shipper	<u>40</u>	(26%)	<u>84</u>	(55%)	<u>29</u>	(19%)
TOTAL	97	(34%)	127	(45%)	60	(21%)

TABLE 18. IMPACTS OF INDIVIDUAL RAIL CONTRACTING ON ELEVATOR VOLUME, BY TYPE OF SERVICE LEVEL USED.

Service Level	Impact on Annual Volume					
	<u>Higher</u>		<u>Lower</u>		<u>No Impact</u>	
	No.	(%)	No.	(%)	No.	(%)
Trainload Shippers	50	(38%)	40	(30%)	42	(32%)
Non-Trainload Shipper	<u>22</u>	(14%)	<u>85</u>	(55%)	<u>48</u>	(31%)
TOTAL	72	(25%)	125	(44%)	90	(31%)

TABLE 19. IMPACTS OF INDIVIDUAL RAIL CONTRACTING ON PRICES PAID TO FARMERS, BY TYPE OF SERVICE LEVEL USED.

Service Level	Impact on Farmer Prices					
	<u>Higher</u>		<u>Lower</u>		<u>No Impact</u>	
	No.	(%)	No.	(%)	No.	(%)
Trainload Shipper	73	(57%)	15	(12%)	40	(31%)
Non-Trainload Shipper	<u>58</u>	(38%)	<u>33</u>	(22%)	<u>60</u>	(40%)
TOTAL	131	(47%)	48	(17%)	100	(36%)

## SUMMARY OF SURVEY RESULTS

Several general conclusions can be drawn from the survey. First, it appears there is a strong relationship between size of country elevator (including subterminals) and the frequency of use of rail contracting between railroads and individual shippers. Higher volume shippers were more likely involved in contracting with railroads and generally felt that their elevator company and its farmer-patrons benefited from that contracting activity. This relationship makes intuitive sense given the nature of the terms of many rail rate contracts. A large share of contracts are based on some kind of minimum grain volume commitment from the contracting elevator. This minimum volume is often either in absolute bushel terms or expressed as a percent of total annual volume. In addition, minimum consignment sizes (such as 26 or 52 car trains) are sometimes required in a contract. These two factors can effectively exclude from contracting elevators whose annual volume is relatively small or do not have facilities to load 26 car or larger size trains. These smaller elevators are therefore excluded from contracting not because of lack of opportunity compared to larger stations, rather because they cannot offer something to the railroad for the mutually beneficial arrangement necessary for a contractual arrangement.

Second, elevator managers who were involved in individual rail rate contracting generally felt that those contracting activities had a positive effect on their firm's competitive

position, annual volume, and prices they were able to pay to farmers.

Third, elevators who are trainload or multi-car shippers were proportionately more frequent users of rail contracts than single car shippers. Again, because of the volume and consignment requirements in particular contracts, it is very likely easier for multi-car shippers to fulfill contract requirements.

Fourth, many elevator managers felt that contracts benefit farmers through higher grain prices. Even many of those who had not negotiated their own contracts felt that farmers benefited at the expense of the elevator's margin, caused by increased competition for grains.

Finally, smaller single-car shippers who had not been involved in contracting generally felt that competitors' contracts had anti-competitive effects on their elevator and reduced their ability to attract grain. It is also noteworthy that in discussions with managers of smaller elevators, competition from neighboring multi-car shippers due to their lower multi-car and trainload rates was blamed for their financial dilemma more often than contracts. Contracting had simply made the problem worse. For some small shippers, however, contracts have been written to make them competitive with their larger, trainloading neighbors, particularly when intramodal competition is a factor.

As mentioned earlier in this report, follow-up telephone calls to elevator managers were made to attempt to gain further insight into the effects of rail contracting on grain elevators. Many of the managers' comments mirrored the findings of the mail survey discussed earlier. Larger shippers and those who had been involved in contracting usually favored the concept of confidential rate contracts, while smaller shippers generally perceived contracts as a discriminatory practice which damaged their competitive situation. The negative feelings toward contracts centered around their price competitiveness with neighboring elevators and inability to attract grain. The perception of smaller shippers was that contracting elevators were increasing their volumes at the expense of the smaller shippers.

Most shippers felt that the predominant type of rail contract on grain was the "destination" or "buyer" contract, whereby a grain buyer such as a commission firm or major grain company actually contracts with the railroad. This buyer then ships grain from a variety of country elevators on an FOB-country basis in fulfillment of the contract. Country elevators receive only a FOB bid at their station and are not involved in the contracting process.

Shippers were also asked to comment on their feelings toward origin versus destination contracts. In some cases shippers felt "uneasy" about destination contracts simply because of the unknowns involved. The manager does not know exactly the rate

under which he is shipping, and compares his FOB bid to other options before selling. Some expressed a desire for more information so they were simply more informed about their marketing alternatives. On the other hand, some managers preferred to ship under a receiver's contract because it transferred the risk associated with contract commitments to the buyer rather than the country elevator. Also, one shipper felt that some marketing leverage was gained under destination contracts especially if his station or trade area had exclusive access to the commodity called for in the contract.

Car supply relative to contracting was an issue also discussed with elevator managers. Some shippers felt that preference was given to larger shippers and those holding contracts. One shipper, however, felt that neighboring elevators knew enough about each others' operations, thereby discouraging discrimination in car allocation.

#### PERCEPTIONS OF GRAIN BUYERS

In addition to the survey of country elevators, an informal survey of grain commission firms, grain companies, and railroads serving North Dakota and western Minnesota was also conducted. Because of the preponderance of destination or buyer contracts in effect, the buyer perceptions of the effects of contracts on country elevators were deemed noteworthy.

The general perception of grain buyers is that rail contracting has definitely helped both country elevators and

their farmer-patrons by providing lower freight rates and therefore higher prices. Also, buyers felt that they played a very positive role for country shippers by acting as a principal in the contract negotiating process. The grain buyers also felt that the region had also become more competitive nationally and worldwide due to contracting. Contracts had reduced overall freight costs thereby allowing competitive bids into domestic and international markets. Regarding the effects of contracts on large versus small country grain elevators, contracts were not viewed as having a major detrimental impact on small shippers. The primary reason for small shipper non-competitiveness, according to buyers, is the rate differentials between single and multi-car shippers. Contracts were thought to have heightened that competitive disparity, but not to have caused it. Contracts were also thought to have opened new markets thereby benefiting country grain shippers. Several examples were cited by grain buyers where contracting was held responsible for allowing grain shipments into previously non-competitive markets.

Some dissatisfaction was expressed, however, regarding the tendency for some grain shipments to bypass traditional marketing channels because of contracts. For example, direct shipments from origin to processor may not utilize traditional commission firms or buyer facilities. Contracting therefore has some capabilities to alter historical marketing channels.

APPENDIX A

Questionnaires Mailed to  
North Dakota and Minnesota Elevators



North Dakota

1. Have you ever shipped grain under rail contract?
  - A. Under your firms contract? Yes \_\_\_\_\_ No \_\_\_\_\_
  - B. Under another firms contract? Yes \_\_\_\_\_ Believe I have \_\_\_\_\_ No \_\_\_\_\_
2. How have railroad contract rates affected your elevator's competitive position? Positive \_\_\_\_\_ No Change \_\_\_\_\_ Negative \_\_\_\_\_
3. How have railroad contracts affected your grain volume? Higher \_\_\_\_\_ No Change \_\_\_\_\_ Lower \_\_\_\_\_
4. How have railroad contract rates affected the prices you pay to farmers? Higher \_\_\_\_\_ No Change \_\_\_\_\_ Lower \_\_\_\_\_  
How much higher or lower? \_\_\_\_\_ c/bushel
5. Have you been able to sell grain into new markets, or ship more grain into traditional markets because of rail contracts? Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, where are these new markets? \_\_\_\_\_
6. Are you in favor of contract disclosure? (check one)
  - A. Favor releasing all contract terms \_\_\_\_\_
  - B. Favor releasing some contract terms \_\_\_\_\_
  - C. Favor complete confidentiality \_\_\_\_\_

THANK YOU!

Minnesota

1. Have you ever shipped grain under rail contract?
  - A. Under your firms contract? Yes \_\_\_\_\_ No \_\_\_\_\_
  - B. Under another firms contract? Yes \_\_\_\_\_ Believe I have \_\_\_\_\_ No \_\_\_\_\_
2. How have railroad contract rates affected your elevator's competitive position? Positive \_\_\_\_\_ No Change \_\_\_\_\_ Negative \_\_\_\_\_
3. How have railroad contracts affected your grain volume? Higher \_\_\_\_\_ No Change \_\_\_\_\_ Lower \_\_\_\_\_
4. What are your average annual carloads of grain shipped over the past two years? \_\_\_\_\_ cars/year
5. Please estimate your percent of annual shipments shipped by:
  - A. Single car shipments \_\_\_\_\_ %
  - B. Multiple car shipments \_\_\_\_\_ %
  - C. Trainload shipments \_\_\_\_\_ %
  - D. Trucks \_\_\_\_\_ %

Total \_\_\_\_\_ 100 %
6. How have railroad contract rates affected the prices you pay to farmers? Higher \_\_\_\_\_ No Change \_\_\_\_\_ Lower \_\_\_\_\_  
How much higher or lower? \_\_\_\_\_ c/bushel

THANK YOU!

APPENDIX B

Mail Survey Results - Destination Contracts

TABLE I. FREQUENCY OF DESTINATION CONTRACT UTILIZATION, BY SIZE.

Annual Volume (million bushels)	Shipped Under Destination Contract			
	Yes	(%)	No	(%)
0 - .75	57	(50%)	56	(50%)
.76 - 1.50	54	(61%)	34	(39%)
1.51 - 3.00	39	(76%)	12	(24%)
>3.00	29	(91%)	3	(9%)

TABLE II. COUNTRY ELEVATOR MANAGER ATTITUDES ON DESTINATION CONTRACTS RELATIVE TO FIRM'S COMPETITIVE POSITION.

Shipped Under Destination Contract	Impact on Competition Position					
	Positive		Negative		None	
	No.	(%)	No.	(%)	No.	(%)
Yes	63	(35%)	75	(42%)	42	(23%)
No	34	(33%)	52	(50%)	18	(17%)

TABLE III. COUNTRY ELEVATOR MANAGER ATTITUDES ON DESTINATION CONTRACTS RELATIVE TO ANNUAL GRAIN VOLUME.

Shipped Under Destination Contract	Impact on Volume					
	Positive		Negative		None	
	No.	(%)	No.	(%)	No.	(%)
Yes	52	(28%)	70	(38%)	62	(34%)
No	20	(19%)	55	(53%)	28	(27%)

TABLE IV. COUNTRY ELEVATOR MANAGER ATTITUDES ON DESTINATION CONTRACTS RELATIVE TO IMPACTS ON FARMER PRICES.

Shipped Under Destination Contract	Impact on Farm Prices					
	<u>Positive</u>		<u>Negative</u>		<u>None</u>	
	No.	(%)	No.	(%)	No.	(%)
Yes	96	(54%)	20	(11%)	61	(34%)
No	35	(34%)	28	(27%)	39	(38%)