JOURNAL OF

Northeastern Agricultural Economics Council

VOLUME 1, NUMBER 1
PROCEEDINGS, NOVA SCOTIA
SUMMER 1972
FEED TRANSPORTATION--A NORTHEAST DILEMMA

Stanley K. Seaver
Professor of Agricultural Economics
Department of Agricultural Economics
The University of Connecticut

The major portion of this paper is about railroads and the old saying, "That's a hell-of-a-way to run a railroad," still obtains.

I will first comment briefly on the long-run intra and interregional competitive pressures, second, upon alternative feed transportation routes which have been investigated, third, the discriminatory nature of regional rail rates, and finally upon a recent proposed combined water-rail route.

From the standpoint of feed, the only two agricultural industries of great importance in the Northeast are dairy and poultry. I see no possibility of the Northeast shifting to other feed consuming enterprises in the near or even distant future. And there is little or no likelihood of any significant shifts between the dairy and poultry enterprises within the region because of the greatly differing resource requirements and the high degree of specialization of each.

Within the region, high wages for hired labor because of industrial and service employment opportunities do exert cost pressures upon both dairy and poultry farms. For the reasonably large one-man or family poultry farm, without hired labor, industrial wage rates often provide a greater income than managerial returns for continuing farm production. For large dairy producing farms, the complete lack of hired labor with sufficient skill, even when high wages are paid, is often the determining factor in farm exits.

But what about the competition from other producing regions? In the case of poultry this competition will continue to exert pressure upon the Northeast. In the face of severe competition from the Southeast, a major portion of the Northeast broiler and egg industry is presently in a struggle for survival. Their ability to survive will depend to a great extent upon feed freight rate relationships between the Northeast and Southeast and upon the likelihood of the Southeast finding some profitable alternative farm enterprise other than broilers and eggs. The latter is extremely remote over the coming 10 years.

Despite public utterances about the disappearance of the Northeast dairy industry, due to possible adoption of a national health ordinance, the demise of the dairy industry will not be caused by such an occurrence.
Large quantities of fluid milk will not move into Northeast markets unless Northeast prices rise considerably while Midwest prices fell, thus changing the relative price relationships between the two areas.

The main threat to the dairy industry stems from substitute products and a regional differential in concentrate costs.

Let me turn now to the single most important factor affecting the competitive position of the livestock industry, especially poultry in the Northeast over the next 5-10 years; namely, transportation costs on feed.

Water transportation is by far the cheapest means of moving most bulky and low value commodities. Despite the high cost of motor carriers, they can effectively move low-value items on back-haul, when the return move is not paying the entire cost. Or put another way, grain could be moved into New England by truck from Ohio, Indiana and Michigan origins if sufficient back-haul volume of various products could be assured in order to carry part of the cost of the round trip. Motor cartage of grain does compete with rail where it does not bear the entire cost of movement as obtains with the back-haul truck shipments of sizeable quantities of Midwest grain to the Southeast. Investigation, however, leads to the conclusion that total truck movements from New England to the Midwest are not large enough to produce a volume of back-haul which would lead to any sizeable movement of grain to New England. Consideration has been given to the possible improved highway route into New England across up-state New York. If such a route materializes, it could have some effect upon truck rates, but the route is probably 10 years in the future. Therefore, truck movement of grains is not likely to be a competitive mode with rails thereby forcing reduced rates.

What about alternative all-water routes into New England? One route is out of the Great Lakes via the St. Lawrence River and down the coast to Maine and other New England states. This is a long circuitous route and fairly expensive when the investment in the necessary storage facilities are considered.

A route, often talked about is via foreign ships to Canada and transshipment also via foreign ships into New England. This route has serious legal obstacles associated with the requirement of moving grain in domestic bottoms and because no ships are being built there is presently a severe shortage of American bottoms for the Great Lakes trade.

In the Water Transport Association study, which I shall later cover in greater detail, even the availability of surplus white corn in Mexico was investigated at the suggestion of a grain company. A small foreign ship from Mexico to Hartford on the Connecticut River seemed a real possibility due to extremely low transportation rates. But the low nutritive value of white corn in poultry rations would require high cost supplements which more than offset the low transport costs. Shipments of milo from Texas had a similar limitation because of the low nutritive value compared
to yellow corn. Here again the advantages of low ocean barge rates was more than canceled out. The all water movement of grain, from Mexico, or Texas, as a realistic alternative to present rail movement was therefore abandoned.

In 1962, Mike Hirth and Frank Lipman investigated the use of the New York State Barge Canal and were seriously considering this route as an alternative to rail. In testimony before an I.C.C. hearing I. and S. Docket No. 7874, Mgr. Hirth presented the following costs:

<table>
<thead>
<tr>
<th>Description</th>
<th>Maximum Cost per Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barge quote from Toledo, Ohio to East Hartford</td>
<td>$6.50</td>
</tr>
<tr>
<td>Trucking - East Hartford to Manchester</td>
<td>.50</td>
</tr>
<tr>
<td>Cargo Insurance</td>
<td>.14</td>
</tr>
<tr>
<td>Additional Costs for Waterborne Corn at Toledo</td>
<td>1.20</td>
</tr>
<tr>
<td>(0.0 to .5¢ per bu.)</td>
<td></td>
</tr>
<tr>
<td>Unloading of Barges</td>
<td>.10</td>
</tr>
<tr>
<td>Equipment, Dock Rental, etc.</td>
<td>.06</td>
</tr>
<tr>
<td></td>
<td>$8.50</td>
</tr>
</tbody>
</table>

Transportation costs at that time (1962) via barge would not exceed $8.50 per ton compared to the proposed rail rate of $9.60 per ton. The minimum shipment was 2,500 tons. An acceptable dock rental was available in East Hartford from the American Coal Company at about $200 per month. A 4,000 bu. capacity hopper at the dock would have been required to be used to funnel from the barge to trucks, with the hopper costing $5,000. Three portable evacuators were required at a cost of $30,000. These had alternative uses in the plant and hence were not charged to the barge operation. Power would have cost about $500 per month.

The barge movement from Toledo would operate via Lake Erie, through the New York State Barge Canal and the Hudson River to Long Island Sound, thence to the Connecticut River at Old Saybrook and to East Hartford. The barge transit time would be about 12 days.

On July 22, 1963 the I.C.C. issued its Report and Order approving reduced multiple car rates on corn, in bulk, from origins in Ohio, Michigan, and Pennsylvania to Manchester, Conn. and to Augusta and Portland, Maine. The single car rates from Mansfield, Ohio to all three destinations was $0.56 per 100 pounds or $10.20 per ton and the proposed multiple car rate was $0.48 per cwt., or $9.60 per ton. The proposed rates provided for minimum weights of 55 tons per car and a minimum of 500 tons per shipment. To Maine destinations, the rates were to apply only during the open season of navigation on the New York State Barge Canal, which season normally extends from April 15 to November 30. Originally the rates to Manchester, Conn. were not to be restricted but at the hearing, the railroads advised that the proposed rates would be modified so that the open-season-of-navigation restriction would also apply to Manchester, Conn.
Why were the rates confined to the open season? The proposed rates were not applicable during the canal's closed season since barges could not operate and hence no competition for the railroads was available.

The original proposed reduction by the railroads was only granted under a threat of an alternative mode of transportation (Standard I.C.C. procedure) and I quote from the I.C.C. findings as follows:

"The purported basis for the establishment of the multiple-car rates is to preclude a diversion of significant traffic from the all rail route of the respondents (railroads) to a competitive barge service from Toledo."

Why were the rates applicable to only two destinations in Maine and one in Connecticut? The I.C.C. findings state the answer very succinctly and I quote:

"Moreover the movement of the corn to Augusta via water competitive routes during 1960 and 1961 and the potential resumption of that service and its expansion to Portland and Manchester constitute a transportation circumstance not present in connection with the movement of corn to the other destinations. It is clear and undisputed on this record that similar barge competition does not exist as to the corn processors at the intermediate points. The lack of such competition is due to location and is not a disability which this commission may alleviate through its control of freight rates."

But it is clear from the record that rates to other than the three destinations could have been reduced. In a review of the cost data submitted, the I.C.C. said that the proposed rates exceeded out-of-pocket costs for single car shipments by 123 to 153 percent and that, thus, "...the proposed multiple car rates provide an even greater excess over out-of-pocket costs... The compensatory nature of the rates is not seriously contested."

The nature of the transportation problem facing us ought to be clear from the foregoing. The I.C.C. and the railroads will only respond to competitive modes of transportation. This was clearly the cause for the large reductions to the Southeast which I shall come to soon.

Finally, to show you how desperate we have been and how extensive have been the investigations, Mike Hirth and I investigated the purchase of a Liberty Ship. The plans were to station it at New Haven Harbor on Long Island Sound and use it as storage. We even contacted a coastal barge company in New York City to obtain rate estimates out of Norfolk, Va. or Baltimore, Maryland into New Haven. The rates were extremely low but
the equipment required to unload the barges, port costs, unloading costs from Liberty Ship to truck, truck costs to Manchester, and the technical problems of maintaining grain quality in ship storage caused us to write off this method as a possible alternative to rail.

It pains me to summarize the foregoing by saying the railroads have the Northeast over the well known barrel or up the river in a canoe without a paddle. It is especially painful and frustrating to an Economist not to be able to discover any means by which competition can be fostered. The railroads in the Northeast have a monopoly fostered and protected by the I.C.C.

Let me digress to re-emphasize interregional competition. The entire livestock industry, especially poultry, has suffered for years from severe interregional competition. This largely stems from the extremely high freight rate from Midwest origins to Northeast destinations. The deterioration in the competitive position of the Northeast poultry industry traces in part to the large reduction in rates instituted by the Southern Railway in order to meet barge and truck competition.

But despite evidence presented, the I.C.C. and the railroads serving the Northeast continue to confine their definition of competition to those modes of transportation serving a given area. It is impossible for them to understand that agriculture in general and the poultry industry in particular are subject to a high degree of interregional competition. A reduction in costs in one region via lower freight rates, has important competitive effects upon another region. Hence, at least within the Agricultural Industry, railroads serving the Northeast are definitely in competition with railroads in the Southeast. As a matter of fact, past actions of the I.C.C. lead to the impression a conspiracy exists aimed at eliminating Agriculture in the Northeast. I do not believe Agriculture interests in the Northeast are asking for protection, but rather asking the government not to take action which artificially precludes the Northeast from competing with other regions.

Let me now review some of the attempts to convince the railroads and the I.C.C. that the Northeast is being discriminated against vis-a-vis the Southeast.

In 1960, the Southern Railway published proposed reduced rates of 60 to 66 percent on multiple car shipments of five or more hopper cars carrying a minimum of 100 tons per car compared to rates based on single box car movements. Considerable opposition to the Southern proposed rate reduction was generated and a four year legal battle ensued.

Southern Railway's first rate reduction in February 1963 was approximately 52 percent below previous rates on single car shipments. Three months later the I.C.C. approved a 60 percent reduction on minimum five car shipments. In July 1963, the I.C.C. reconsidered their actions and issued a correctional order upping the rail rate by 16 percent. Southern filed suit July 23, 1963 and a month later a temporary injunction was issued in their favor and against the I.C.C. correctional order.
I.C.C. contended the lower rates created destructive competition with other types of transportation, mainly river barge and trucking lines. Almost a year later, May 20, 1964, the court ruled that the I.C.C. conclusions were not supported by the evidence and gave Southern Railway the right to keep the full rate reduction on grain shipments into the southeast states.

Discriminatory Nature of Rail Rate Changes

The problem the Northeast faces is purely and simply one of discrimination—condoned and supported by official governmental bodies. What the differential in rates as between the Southeast and Northeast has meant over the last 8-10 years can be briefly reviewed.

In 1964, the freight rates per bushel of corn from Cincinnati, Ohio to major poultry areas was reduced as follows:

- to Raleigh, N. C. -17.2
- to Gainesville, Ga. -16.8
- to Wilmington, Dela. -13.2
- to Cape Charles, Va. -11.5
- to Brunswick, Me. -5.8
- to Providence, R. I. -4.8

The sizeable reductions to Delmarva, contrasted to New England, requires a bit of explanation. In November, 1963, the Baltimore and Ohio Railroad, pursuant to a notice of independent action, to become effective on November 19, issued new non-transit rates to apply on corn in bulk in single carloads from origins in Ohio to Maryland and Virginia. The rates published by the Baltimore and Ohio represented approximately a 40 percent reduction on single carload rates on shipments of corn with the reductions ranging from $4.00-$5.20 per ton. The Pennsylvania Railroad took immediate action to place in effect similar rates to apply on carload shipments of corn from common points in Ohio to blanket the destination territory of Delaware, Maryland and Virginia as a defensive measure to meet the competition of the Baltimore and Ohio Railroad. Such action by the B and O and Pennsylvania railroads probably resulted from Delmarva's closer proximity to the Southeast, but the result was that Delmarva gained advantage on the remainder of the Northeast for no such reductions in rates were made available to New York, New Jersey, Pennsylvania and New England.

But the rate reductions to Delmarva may have been a bit late and probably stemmed from causes other than reductions to the Southeast. Such a possibility is clearly stated in a letter I received from Professor H. D. Smith of the University of Maryland dated February 3, 1964. I quote:

"In reviewing some of our published material, I find several factors pointed up the urgency for reduced freight rates to the Delmarva area. As you know we made studies in 1959 and again in 1961 and in that
two-year period we noted the rail movement of corn to Delmarva had declined 6.3 million bushels per year. Due to the persistence of high freight rates the industry encouraged local corn and soybean production and the building of additional storage capacity. As a result, by 1961 eighty percent of the area's corn needs were supplied by local farmers in contrast to 56 percent in 1959. Barge movement of corn from eastern North Carolina also had been encouraged.... As you know, the Delmarva peninsula has been adding soybean crushing capacity as a further means of avoiding continued high freight rates. I would estimate movement of corn and soybeans from Midwest sources have been reduced to 5 percent of total needs.''

Consistently the Eastern railroads were appraised of the competitive nature of the poultry industry. But such appraisals were ignored because no competitive mode of transportation existed in their monopolized area and because it seemed unlikely the remainder of the Northeast could or would turn to producing corn and soybeans as had Delmarva.

Since the reductions to the three destinations in 1963, referred to earlier, subsequent rate changes have been increases and all have discriminated against the Northeast because of the relatively greater increases as compared to the Southeast. A few examples are in order to substantiate the point.

In the Ex Parte 259 rate increases in 1968, the rates on corn were raised $0.52 per ton from Toledo, Ohio to Manchester, Conn. but only $0.15 per ton from St. Louis, Missouri to Gainesville, Ga., approximately the same distance. From Fostoria, Ohio to Manchester, Conn., the rate on SBOM was raised $0.68 per ton and from Beardstown, Ill. to Gainesville, Ga., $0.15 per ton, again with distances approximately equal.

A comparison of Ex Parte (X-267B) rate increases approved in March 1971 is extremely revealing. At 710 miles from point of origin the 1963-64 rates gave the South an advantage of $3.91 per ton as compared to Manchester, Conn. Under (X-267B) the difference had increased to $6.21, or $2.30 per ton additional disadvantage from 63-64 to 71. At 866 miles from origin the differences were $4.32 and $6.66 per ton, respectively, or $2.34 greater disadvantage. In comparison with Augusta, Maine, the South had an advantage in 1964 of $4.28 per ton at 1065 miles from origin, but by 1971 this had increased to $6.78, or $2.50 additional. Let me repeat, every rate increase since 1964 has worsened the Northeast's competitive position vis-a-vis the Southeast.

The export rate again illustrates that a competitive mode of transportation is the only factor to which railroads respond. Rather than
allow grain to move via ship from Toledo, Ohio directly to export via the St. Lawrence Seaway, the railroads established a rate (and approved by I.C.C.) of $4.24 per ton from Toledo, Ohio to Albany, N. Y. a distance of 575 miles. The railroads have consistently testified they are not losing money on this export rate. This rate is for a unit train of 100 cars.) At the same time the domestic rate to Albany is $10.00 per ton. The domestic rate from Toledo to Manchester, Conn. is $11.56 per ton for a distance of 691 miles. If any rate approaching the export rate were available in units of 50-100 cars, feed mixers in the industry would build additional facilities to accommodate such large shipments. And finally, why should the domestic feed industry and farmers subsidize the grain export trade?

**Rail Rates in Relation to Out-of-Pocket and Fully Distributed Costs**

Can the railroads afford to reduce rates? Let's look at some interesting evidence.

John Crothers of the Department of Markets of Maryland gave testimony at an I.C.C. hearing in 1968 regarding costs to railroads of corn shipments. Time has not permitted a thorough investigation of the changes in relationship between rates and costs since 1968, but is doubtful if the relative relationships have materially changed. The comparison of rates to out-of-pocket and fully distributed costs applied to covered hoppers of 190,000 pounds. The corn rates in existence in 1968 averaged 194 percent of out-of-pocket costs and 128 percent of fully distributed costs. If these figures approximate the present situation, then the Northeast grain traffic is bearing more than their share of the railroads' troubles and rates could be reduced materially without further impairing the railroads' present shaky position.

Another indication that rates could be reduced without jeopardizing the final condition of railroads is contained in a 1968 study conducted by the University of Connecticut. Only two important findings will be referred to here.

One, the freight rate on corn from Lansing, Mich. to Augusta, Maine (in 1968 10.10 per ton) was $1.08 per ton higher than computed cost for a shipment of five box cars of 55 tons each and $3.55 per ton, higher than estimated cost for a shipment of five hopper cars of 100 tons each. Most of the reductions in costs stemming from multiple car shipments accrue over the first 20 cars. Unit train car estimates represent a further reduction of less than $1 below the 20 car shipment of 100-ton hopper cars.

Second, combined storage and transportation cost estimates from two origins to six New England destinations showed reductions of from $3.44 to

---

$5.18 per ton under rates existing in 1968. Such sizeable cost reductions could be achieved even after allowing for costs of large volumes of storage at each of six hypothetical destinations.

Water-Rail Proposal

Finally, let me turn to the most recent proposal, namely, a combination of water and rail. Some of you may have heard about the study undertaken by the Water Transport Association, under the direction of Mr. John A. Creedy and referred to earlier. A number of individuals in the Northeast contributed inputs to the study.

The study proposed the use of the Great Lakes self-unloading vessels from Toledo and other Great Lakes ports to Buffalo or Ogdensburg, N.Y. While the latter city offers a good lake-rail transfer point, it could require building a modern transfer facility. In addition a much longer lake haul and tolls on the Welland Canal between Lake Erie and Lake Ontario add to the costs of the Ogdensburg location as contrasted with Buffalo.

Two ports on the Georgian Bay in Canada were considered, namely, Midland and McNicoll. Rail rates via Canadian National or Canadian Pacific railroads are much too high to make the ports competitive.

Buffalo seems to be the most likely lake port for any lake-rail movement of grain into New England. The water movement to Buffalo would probably be by self-unloading vessels. Such a vessel can unload without any shoreside help and move in and out of port in approximately 6 hours. The requirement for feed grains in New England is about 2,000,000 tons per year which would require delivery of at least two 10,000-ton cargoes a week to Buffalo.

From Buffalo grain would be moved by unit train which could shuttle twice a week to New England with 10,000 tons each trip. Enough tonnage exists so that two trains would be required. The trains could be broken into 50 car units at Springfield, Mass., for example, with one unit moving north and the other south.

What are the possible cost savings? Present all rail rates from Columbus or Toledo to Manchester, Conn. or Worcester, Mass., is 47 1/2 cents per cwt. plus two percent surcharge of $9.74 per ton in multiple car units. Via boat and rail the rate would be between $5.31 and $6.16 per ton depending upon the size of units in which the 100 unit train was broken down. The proposed rates allow the railroads a revenue to out-of-pocket cost rate of $1.68 per ton or more than exists on current rates. Comparing the proposed rates of $5.31 and $6.16 to the present $9.74 results in a cost saving of between $3.55 and $4.43 per ton. The savings to Augusta, Maine, would fall between $4.75 and $6.00 per ton.

The water-rail proposal has no chance of becoming operational without a firm and long term commitment on the part of the I.C.C. concerning
the relationship between all rail rates and water-rail rates. The Commission needs to assure all parties that future changes in all rail rates will be made available from the port at a proportional rate considering cost and distance. Unless the Commission can give the trade the necessary assurance of a rate which combines the best of water and rail movement and protection of such rates, the necessary investments in storage and train loading facilities will never materialize. I am no lawyer, but a series of court cases, including a Supreme Court decision, seems clearly to give I.C.C. the power and duty to prevent favoring one mode of transportation over another.

All the foregoing and much more was presented at an informal seminar called by the I.C.C. September 16, 1971. What was the railroad's answer? On Nov. 2, 1971 the Traffic Executive Association—Eastern Railroads filed a 5 page letter with the I.C.C. pointing out (1) how much the rates had been reduced from the old single car in-transit rates; (2) the cost of producing eggs in several regions; (3) the change in egg and broiler production from 1955 to 1970 in New England and (4) that true "unit-trains" was not included in the water-rail proposal. But the letter ended as follows:

"The Eastern railroads suggest that there is no reason to continue this informal conference and that there is no justification for any further action by the Commission on this matter in this or any other proceeding."

Needless to say, no notice continuing the seminar has yet been received and I suspect none ever will be issued.

In summary, the railroads and the I.C.C. have ignored interregional competition aspects of the rate problem. They simply have not understood that what happens to rates in one region has a bearing upon output of agricultural products in another region. In addition changes in rates over the past 10 years has consistently discriminated against the Northeast. And finally the establishment of a competitive mode of transportation or the threat thereof is the most important factor affecting rail rates. The establishment of an all water route, via either the New York barge canal or coastwise seems to be the only solution to high rail rates on feed in the Northeast.