

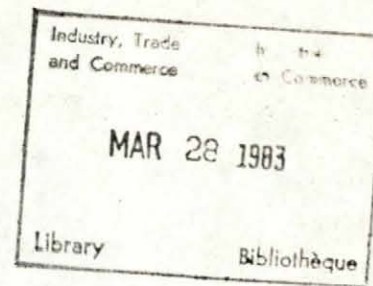
NEWSPRINT TRANSPORTATION COSTS

DEPARTMENT OF REGIONAL ECONOMIC EXPANSION

JANUARY 1979

HD
9834
C22
C322

HD
9834
C22
C32



FOREWORD

This paper has been prepared by the staff of the Project Assessment and Evaluation Branch, Department of Regional Economic Expansion. Any views or opinion expressed in this paper do not necessarily represent those of the Department of Regional Economic Expansion nor of the Government of Canada. The material contained herein is based on both primary and secondary research, and while all reasonable care has been taken to corroborate the information we cannot guarantee the accuracy of facts obtained through interviews. This is one of a series of reports which provides background information on the prospects facing the Canadian forest products industry and is being made available so that the Department may have the advantage of informed comments from knowledgeable sources.



Table of Contents

	<u>Page</u>
1. Introduction	1
2. Newsprint Shipments from Quebec by Rail	2
3. Average transportation Costs	10
4. History of Newsprint Freight Rates	14
4.1 Eastern Canadian Rates	14
4.1.1 The Effect of Ex Parte Increases	21
4.2 Rates for Mills in the U.S. Northeast	23
4.2.1 The Effect of Ex Parte Increases	24
4.3 Rates for Mills in the U.S. South	25
4.3.1 The Effect of Ex Parte Increases	26
5. Comparisons of Newsprint Freight Rates	29
5.1 The Newsprint Case	29
5.2 Incentive Rate Comparisons	31
5.3 Comparing Competitive Rates	34
6. Factors Affecting Transportation Costs	38
6.1 Distance	38
6.2 Intermodal Competition	40
6.3 Technical Factors	43
7. Summary and Conclusions	46
7.1 Limitations	46
7.2 Rate Scales	46
7.3 Distance	47
7.4 Intermodal Competition	48
7.5 Other Factors	48
7.6 Conclusions	49

1. INTRODUCTION

The cost of shipping newsprint from mills to markets is an important element of total manufacturing costs for Canadian newsprint producers. Recent studies¹ indicate that transportation charges account for between 13% and 15% of total producer costs. Transportation costs are a major factor in the differential in total manufacturing costs between Canadian and U.S. producers. Consequently, the overall level of transportation costs and the cost differences between Canadian and U.S. producers for shipping newsprint to markets have been widely discussed.

In a recent submission to the federal government, the Government of Quebec has raised the issue of transportation costs, especially the cost differential between Quebec and Southern U.S. producers. The purpose of this report is to provide background information on this issue. The emphasis is on the costs of shipping newsprint from Quebec mills to the U.S. market by rail. Rail charges for newsprint shipments originating in the U.S. South are also examined. To place these data in perspective the report deals with the importance of various markets for Canadian and U.S. newsprint and the use of rail versus other modes of transportation. Although quantitative information is lacking in many cases, other factors influencing both the level of transportation costs and the cost differentials are also discussed.

1. Based on the Quebec government's recent submission to the federal government and the Sandwell report. Sandwell Management Consultants, Analysis of Manufacturing Costs in North American Forest Products Industries, 1977.

2. NEWSPRINT SHIPMENTS FROM QUEBEC BY RAIL

Subsequent sections of this report focus on the rail freight rates for newsprint shipments to the U.S. from Quebec and the Southern U.S. To provide a perspective for such an analysis, this section examines the total U.S. market and the overall transportation situation faced by Canadian and U.S. newsprint producers.

2.1 The Newsprint Market in the United States

The United States is by far the most important export market for Canadian newsprint, accounting for 79% of exports in 1977. Quebec produces more newsprint than any other province and accounted for 46% of the total value of Canadian newsprint exports to the U.S. in 1977.¹ For individual companies with mills located in Quebec, the relative importance of the U.S. market varies. For example, the U.S. market accounted for 87% of Canadian International Paper's (CIP) shipments in 1977 but only 60% of Kruger's shipments in 1976.² Nevertheless, the U.S. is consistently the single most important market for Canadian and Quebec newsprint producers.

A regional breakdown of U.S. markets is important in discussing both the overall market shares of Quebec producers and the modes of transportation used by Quebec producers. Table 1 shows the value of Canadian newsprint exports to the U.S., by origin and destination region. Most of eastern Canadian newsprint exports to the U.S. are destined for the

1. Statistics Canada, Exports, Merchandise Trade, 1975-1977, 65-202.

2. From CIP's and Kruger's submissions to the Quebec hearings on Natural Resources and Lands and Forests in 1977 (based on quantity).

Value of Canadian Newsprint Exports to United States
By Origin and Destination Regions

1977
(\$ million and %)

<u>Origin</u>	<u>Destination</u>			<u>Total</u>
	<u>North-East</u> <u>North-Central</u>	<u>South</u>	<u>West</u>	
<u>Atlantic \$</u>	89	121	--	210
% of Atlantic	42	58	--	100
% of Canada	5	6	--	11
<u>Quebec \$</u>	716	141	4	861
% of Quebec	83	16	1	100
% of Canada	39	8	-	46
<u>Ontario \$</u>	442	24	12	478
% of Ontario	93	5	2	100
% of Canada	23	1	1	26
<u>Prairies \$</u>	24	1	-	25
% of Prairies	96	4	-	100
% of Canada	1	-	-	1
<u>Pacific \$</u>	6	2	287	295
% of Pacific	2	1	97	100
% of Canada	-	-	15	15
<hr/> Canada \$	<hr/> 1,277	<hr/> 289	<hr/> 303	<hr/> 1,869
<hr/> Canada %	<hr/> 68	<hr/> 15	<hr/> 16	<hr/> 100

North-East: Maine, N. Hamp., Ver., Conn., Mass., N. Jersey,
N.Y., Penn.

North-Central: Mich., Ohio, Ill., Ind., Wis., Minn., N. Dak.,
S. Dak., Missouri, Nebraska.

South: Del., Md., D.C., N. Carol., Va., W. Va., Fla., Ga.,
S. Carol., Kty., Tenn., Alabama., Mississippi, Ark.,
La., Oklahoma, Texas.

West: Idaho, Mont., Wyoming, Arizona, N. Mex., Col., Nev.,
Utah, Alaska, Oregon, Wash., Calif., Hawaii.

Source: Statistics Canada, Exports, Merchandise Trade
1975-77, 65-202.

Northeast and North Central regions. Over 80% of Quebec exports to the U.S. are shipped to these markets and nearly 40% of total Canadian exports to the U.S. are accounted for by Quebec shipments to this market area. For Atlantic producers, the U.S. South is a more important market.

Table 2 shows the percentage shares of the U.S. regional markets supplied by U.S. and Canadian producing regions. This table shows that about 80% of newsprint requirements for the U.S. North are met by Eastern Canadian producers, while 62% of newsprint requirements for the U.S. South are met by Southern producers.

This regional differentiation of U.S. markets for newsprint highlights two factors about the transportation situation facing Quebec producers:

1. Use of the other modes of transport is a possibility for certain Quebec producers: for example, New York is accessible by water to some mills; some U.S. cities are within trucking distance.
2. The southern part of Quebec's main market overlaps with the northern part of the U.S. South market; however, less than 20% of U.S. South newsprint production is shipped to Northeast and North Central U.S.

Nearly two-thirds of all Canadian newsprint exports to the U.S. are shipped by rail (see Table 3). While truck shipments are significant, use of water transport ranks second after use of rail, accounting for nearly one-quarter of the quantity shipped in 1977. The importance of the three modes varies by region and by company. Table 3 also shows the mode of transportation for the five companies that participated in a joint transportation study with the CNR in 1973. These Newsprint Distribution Research (NDR) mills, located mainly in Quebec, ship a much larger percentage (87%) by rail. Both Kruger and

Table 2

Regional Market Shares of Mills Supplying
U.S. Daily Newspapers Reporting to ANPA, 1975
(%)

<u>Supplies</u> to from	<u>Newspapers</u>			
	<u>U.S. North</u>	<u>U.S. South</u>	<u>U.S. West</u>	<u>All U.S.</u>
U.S. North	13	2	0	8
U.S. South	6	62	1	22
U.S. West	0	0	48	9
Canada East	80	29	4	51
Canada West	1	0	46	9
Other	0	1	1	0
Total	100%	100%	100%	100%

Source: DREE, Newsprint, July 1978.

Note: These data are for the more than 500 U.S. daily newspapers reporting to American Newspaper Publishers Association (ANPA), and represent about 70% of total U.S. newsprint consumption. The percentage shares are based on quantity.

Table 3

Canadian Newsprint Exports to the U.S.
By Mode of Transport
 (000 tons and %)

<u>Producers</u>	<u>Rail</u>	<u>Truck</u>	<u>Water</u>	<u>Total</u>
1. All Canada, 1977	4,028	836	1,471	6,335
	64	13	23	100
2. Newsprint Distribution Research (NDR), 1973*	1,011	87	59	1,157
	87	8	5	100
3. Kruger, 1976	209	70	0	279
	75	25	0	100
4. Domtar, 1977	N/A	N/A	0	N/A
	65	35	0	100

Source: Schwartz, P.L., Newsprint Rail Distribution Developments in Canada, CNR paper presented at Third International Symposium on Transport and Handling in the Pulp and Paper Industry in Vancouver, B.C., September, 1978.

Newsprint Distribution Research (NDR), Distribution of Eastern Canadian Newsprint to United States, Montreal, 1974.

Kruger Pulp and Paper Ltd., Brief submitted to Quebec hearings on Natural Resources and Lands and Forests, 1977.

Domtar Pulp and Paper Ltd., Brief submitted to Quebec hearings on Natural Resources and Lands and Forests, 1977.

* NDR covers the 18 mills of these companies: Abitibi, Anglo-Canadian, Consolidated-Bathurst, Domtar and Price. Figures are for first half of year because of national rail strike in 1973.

Domtar ship less by rail and far more by truck than the average for the NDR companies. The use of water as a mode of transport naturally depends largely on the locations of the mill and the U.S. customers.

Table 4, provided by the Canadian Pulp and Paper Association (CPPA), shows the mode of transport for Canadian newsprint shipments to the various U.S. rail territories for 1976 and 1977. Total Canadian shipments to the Official Territory (Northeast and North Central U.S.) show less reliance on rail than the NDR shipments to the U.S. Water transport is the dominant mode of transport for shipments to the Southern Territory, reflecting the prohibitive distance from Canadian producers for rail and truck shipments. It is interesting to note that, despite the predominance of rail transport, use of trucks is greater for shipments to Official than for shipments to any other territory.

Information contained in the Interstate Commerce Commission (ICC) decision on The Newsprint Case¹ indicates the relative shares of the three modes of transport for the years 1963 through 1973. For complainant mills,² the share of newsprint shipped by rail increased from about 70% over the period 1963 through 1968 to 80% in 1972. Water shipments decreased from about 20% in 1963 to 6% in 1972. Truck shipments increased gradually over the period from 9% in 1963 to 14% in 1972.

Table 5 ranks destination cities for newsprint shipments to the Northern U.S. handled by CN. While these figures do not cover other rail shipments (e.g. handled by CPR) or truck and water shipments, they do give an indication of the importance to Canadian producers of the markets in various individual cities in the U.S.

1. See Section 5 for a discussion of the Newsprint Case.

2. Anglo-Canadian, CIP, Consolidated Bathurst, Domtar, Donohue, Gaspesia, James McLaren, Price, St. Raymond.

Table 4

Canadian Newsprint Shipments to U.S. by
Mode of Transport and Rail Territory
1976 and 1977
 (%)

Territory	Mode of Transport						Total
	Rail		Truck		Water		
	'76	'77	'76	'77	'76	'77	
Official	74	70	15	18	11	13	100
Southern	34	36	0	1	66	63	100
Western Trunk	90	85	10	15	0	0	100
Southwestern	78	80	1	2	20	18	100
Mtn Pacific or Transcon.	36	38	0	0	64	62	100
All U.S.A.	67	64	11	13	22	23	100

Source: CPPA

Note: Percentage shares are based on quantity. The figures on which the percentages are based are for companies reporting to the CPPA, and cover all Canadian shipments of newsprint to the United States.

Table 5

CN Handling to U.S. Destination Areas, 1973

Primary Traffic

<u>Area Rank</u>	<u>Central City</u>	<u>000 Tons</u>	<u>%</u>	<u>(Cumulative) %</u>
1.	*New York	523	19	
2.	*Chicago	406	15	
3.	*Philadelphia	297	11	
4.	*Detroit	211	8	
5.	*Cleveland	167	6	(59)
6.	*Washington (incl. Baltimore)	123	4	
7.	*Boston	120	4	
8.	Milwaukee	110	4	
9.	Dayton	106	4	
10.	*Pittsburgh	101	4	(79)
11.	*Buffalo	99	4	
12.	Indianapolis	64	2	
13.	Hartford	62	2	
14.	Toledo	59	2	
15.	*Louisville	55	2	(91)
16.	Omaha	55	2	
17.	*St. Louis	52	2	
18.	Albany	51	2	
19.	St. Paul/Minneapolis	50	2	
20.	Newport News	44	2	(100)
	Sub Total	<u>2,755</u>		
	Not Covered	8	-	
	PRIMARY TRAFFIC TOTAL	2,763	100	

Notes:

1. Based on first six months data adjusted to a full year.
2. Primary traffic includes shipments to Northeastern U.S. only (including the Dakotas and east, and Kentucky and north). Primary traffic accounts for 95% of all U.S. traffic handled by CN.

Source: CNR, Newsprint Distribution Study, Volume 1, 1974.

* Indicates 11 of the 13 cities chosen by applicants in Newsprint Case. Cincinnati and Rochester, included in the Newsprint Case, are not shown here.

3. AVERAGE TRANSPORTATION COSTS

There are numerous difficulties involved in the calculation and interpretation of average transportation costs for shipping newsprint from mills to markets. Nevertheless, several examples of average costs are available and are discussed in this section. It is important to be aware of the limitations of average cost data and to use care in deriving conclusions from such information. The most important consideration is that average costs are usually not calculated on comparable bases. A critical point is that the average cost per ton for Quebec shipments involves a much greater shipping distance than average cost per ton for U.S. South producers. For Canada-U.S. comparisons, differences in the type of rail rates available and the differences in the level of rail rates are also important factors in explaining differentials in average costs. Rail rates are discussed in Sections 4 and 5. A fuller discussion of the broader factors influencing transportation costs is reserved for Section 6.

Table 6 summarizes average transportation costs reported in various sources for various Canadian and U.S. newsprint producers. The figures in the ICC decision on the Newsprint Case compare net average rail charges for the complainant mills with those for four U.S. South producers for 1973. The CNR figures, while only covering newsprint shipped by CNR, are based on a detailed calculation of individual freight charges for 95% of all CNR newsprint shipments to the U.S. during the first half of 1973. Table 5 in Section 2 shows the ranking of the U.S. cities serviced by CNR newsprint cars. The cost of \$21.48/ton is at the X-299 level. Applying the percentage increases for the Grand'Mère group to update this average cost yields a figure of \$36.19/ton at the X-349 level

Table 6

Comparison of Newsprint Transportation Costs

<u>Source</u>	<u>Cost \$/ton</u>	<u>Details</u>
1: ICC Decision (newsprint case)	23.85 rail 11.19 rail 13.21 rail 10.78 rail 13.80 rail	Complainant mills (752 miles) Herty, Tex. (367 miles) Sheldon, Tex. (405 miles) Catawba, S.C. (464 miles) Calhoun, Tenn. (609 miles) (1973, X-299 average rate and distance)
2. CNR Study	21.48 rail (36.19 rail)	- Eastern Cdn exports to North U.S., average 900 miles - at X-299 level - (up-dated to X-349, 1978)
3. Newsprint Distribution Research (NDR)	22.47 rail 26.79 truck 21.06 water 22.72 average (36.80 rail)	- rail at X-281 level - 1973 for NDR mills, mainly in Quebec to U.S. market - (up-dated to X-349, 1978)
4. Sandwell (1977)	37.00 average 11.00 average	N.E. Quebec and NW Ontario - weighted average for all modes, all destinations S.E. U.S.A. - weighted average for all modes, all destinations

<u>Source</u>	<u>Cost \$/ton</u>	<u>Details</u>
5. Quebec Submission (1978)	33.00 rail	- Grand'mere to N.E. and North Central U.S.A.
	11.00 rail	- U.S. South to U.S. markets
6. CIP Submission (1977)	38.00 rail	- Eastern Canada to N.E. and North Central U.S.A., 1976
	16.30 rail	- U.S. South to S.E. and S.W. U.S., 1976
7. Consolidated- Bathurst Submission (1977)	\$10-15/ton differential	- Canadian vs. U.S.
8. Abitibi-Price Submission (1977)	\$15/ton differential	- Canadian vs U.S. producers

Sources:

CNR, Newsprint Distribution Study, 1974.

Interstate Commerce Commission, Initial Decision in Newsprint Case, No. 35265, 1975.

NDR, Distribution of Eastern Canadian Newsprint to the United States, 1974.

Quebec government, submission to federal government on the pulp and paper industry.

Sandwell Management Consultants, Analysis of Manufacturing Costs in the North American Forest Products Industries, unpublished draft, 1977.

Submissions by CIP, Consolidated-Bathurst and Abitibi-Price to Quebec hearings on Natural Resources and Lands and Forests, 1977.

(effective to the end of 1978). The NDR study, which was undertaken jointly with the CNR study, provides cost figures for rail shipments similar to the CNR figures. The NDR figures also show the relative costs for truck and water shipments.

The average transportation costs in the Sandwell report show relatively high figures for Quebec and Ontario producers. Undoubtedly this is explained by the inclusion of all modes and destinations in the average (e.g. water shipments to Europe). The \$11/ton average for U.S. South producers is also based on total shipments. The Sandwell report does indicate, however, that shipments from Eastern Canada travel predominantly by rail to the Northern U.S. and that shipments from the U.S. South travel mainly by truck within the Southern U.S. The Sandwell figures are based on information provided by a sample of newsprint producers.

Both the Quebec government's and CIP's figures are based on rail shipments only, whereas the average cost differentials provided by Consolidated-Bathurst and Abitibi-Price relate to all modes of transport. These four examples, however, are similar in that they basically compare Quebec shipments to their main market in Northeast and North Central U.S. with U.S. South shipments to their main market within the Southern U.S. It should be noted that the average distances shipped are substantially different, with Quebec producers being much farther from their major market than U.S. South producers. Average distances are shown in Table 6 for the ICC and CNR figures.

4. HISTORY OF NEWSPRINT FREIGHT RATES

4.1 Eastern Canadian Rates

Prior to 1934, railway freight rates on newsprint shipments to points in the United States were established by the railways on a voluntary basis, resulting in a rate structure that was neither consistent nor uniform. Following complaints by members of the Canadian newsprint industry concerning a proposed increase in rates, investigations were conducted in 1933 by both the Board of Railway Commissioners for Canada (now the Canadian Transport Commission) and the Interstate Commerce Commission for the U.S. The basic rate structure for newsprint shipped by rail from Quebec to the northern United States established during those proceedings is still in effect today.

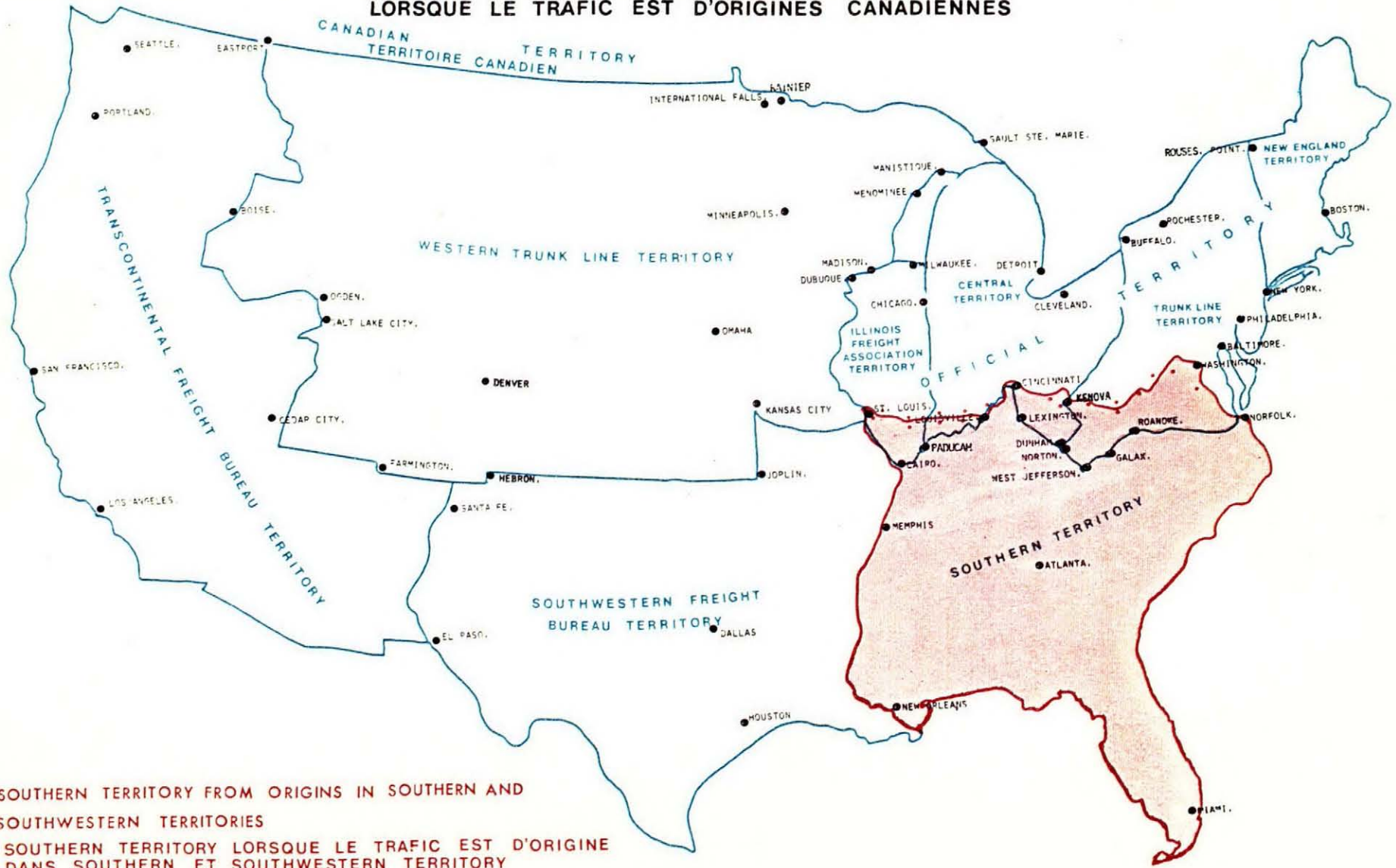
In its 1934 decision (42 CRC 15) the Board of Railway Commissioners set forth a rate structure based on origin groupings and destination groupings. Origin groupings such as the Grand'Mère Group of mills were maintained such that the freight rate to a particular destination would be the same for each mill in the group, irrespective of the actual mill-to-market distance involved. Most of the other mills in Eastern Canada (including all of the other Quebec mills) were termed Grand'Mère Arbitraries, for which a fixed mill-specific surcharge of from 2¢ to 6¢ per hundredweight was added to the basic Grand'Mère rate applicable to all U.S. destinations.

The freight rates established by the Canadian Board in 1934 were basic rates to Official Territory. Basic rates apply to loadings of newsprint of 40,000 lbs in 40 ft. rail cars or 65,000 lbs in 50 ft. rail cars. Official (or Eastern) Territory is an area covering the northeast and north central United States. Although the borders of this territory are actually

Figure 1.

UNITED STATES RAILROAD RATE TERRITORIES
FROM CANADIAN ORIGINS

ZONES TARIFAIRES DES CHEMINS DE FER AMERICAINS
LORSQUE LE TRAFIC EST D'ORIGINES CANADIENNES



SOUTHERN TERRITORY FROM ORIGINS IN SOUTHERN AND
SOUTHWESTERN TERRITORIES
SOUTHERN TERRITORY LORSQUE LE TRAFIC EST D'ORIGINE
DANS SOUTHERN ET SOUTHWESTERN TERRITORY

Source: Canadian Transport Commission, The Newsprint Case Report, 1975 (Map VII).

defined in terms of rail lines in many cases (see Figure 1), the boundaries of the various sub-territories basically follow state borders, so that the sub-territories roughly include:

New England (N.E.) - Maine, New Hampshire, Vermont,
Massachusetts, Rhode Island and Connecticut
Trunk Line (T.L.) - New York, Pennsylvania, New Jersey,
Delaware, Maryland, part of West Virginia
Central (CFA) - Ohio, Indiana, Michigan
Illinois (IFA) - Illinois, part of Wisconsin (including
Milwaukee)

There are two further aspects of the freight territories shown in Figure 1 which bear emphasis. Firstly, there are a number of major consumption centres located on the southern border of Official Territory. The most important of these "border cities" are St. Louis, Louisville, and Cincinnati. For rate-making purposes these cities are considered to be in Official Territory for shipments originating within Official Territory or eastern Canada, but are considered to be within Southern Territory for shipments originating in the Southern and Southwestern Territories. Since "within territory" rates are generally more favourable than "inter-territory" rates (see below), these border cities receive favourable rates from all their major supply sources in eastern North America. Secondly, the borders of Official Territory are defined differently depending on the origin of a newsprint shipment. As Figure 1 illustrates, for purposes of shipments originating in Southern Territory the southern border of Official Territory is further north than for shipments originating in eastern Canada. As a result, Washington, D.C. is considered a "border city" within Southern Territory for shipments originating within the Southern and Southwestern Territories.

For shipments to New England and Trunk Line Territories from eastern Canada, the 1934 decision of the Board of Railway Commissioners for Canada set out the mileage scale for freight rates shown in Table 7 below. The Grand'Mère group mileage to major destinations in these territories was calculated as the average short-haul distance from all mills in the group.¹ This rate scale was also applied to the Espanola-Sturgeon Falls group of mills.

Table 7

Scale for Application to Grand'Mère Group Shipments
to New England and Trunk Line Territories
1934 Decision of the Board of Railway Commissioners

<u>Not over (miles)</u>	<u>Basic Rate in Cents per 100 lbs.</u>	<u>Applicable to:</u>
160	19	
180	20	
200	21	
220	22	
240	23	
260	24	
280	25	
300	26	
330	27	
360	28	
390	29	Rochester
420	30	Boston
450	31	
480	32	New York
520	33	Buffalo
560	34	
600	35	
640	36	Philadelphia
680	37	
720	38	Washington
760	39	
800	40	
840	41	
880	42	Norfolk (Phila. plus 6¢)
920	43	
960	44	
1000	45	

Source: Adapted from: Canadian Transport Commission, The Newsprint Case Report, 1975, p. 59.

1. Group mills were: Grand'Mère, Shawinigan Falls, Quebec City, Donnacona, Cap de la Madeleine, Trois Rivieres, Bromptonville, Buckingham Jct., Gatineau, East Angus, Windsor Mills, Hull West, and Ottawa.

Freight rates to destinations in Central and Illinois Freight Association Territories were established as a percentage of the 42¢ basic rate to Chicago. A percentage group map for the territory was produced, expressing the rate to each sub-region as a percentage of the Chicago rate. Rates established to major centres in the Central Freight Association territory included those shown in Table 8 below. For purposes of applying this scale, the Grand'Mère Group was expanded to include the Espanola-Sturgeon Falls group of mills and mills at Iroquois Falls and Kapuskasing. As was the case with shipments to the New England and Trunk Line territories, freight rates to Central and Illinois Freight Association Territories from other Quebec mills were based on fixed arbitraries of from 2¢ to 6¢ per hundredweight above the basic Grand'Mère Group rate.

Table 8

1934 Newsprint Freight Rates
to Central Freight Association Territory

<u>Destination</u>	<u>Percentage Group</u>	<u>Basic Freight Rate ¢/cwt</u>
Detroit	84	35.5
Cleveland, Toledo	86	36
Pittsburgh	92	38.5
Dayton	96	40.5
Chicago)		
Cincinnati)	100	42
Milwaukee)		
Indianapolis)		
Louisville	108	45.5
St. Louis	117	49

Source: Adapted from: Canadian Transport Commission, The Newsprint Case Report, 1975, Appendix II.

Although the freight rates for New England/Trunk Line Territories and for Central Freight Association Territory were presented in different formats in the Board's 1934 decision, it appears that the same basic mileage scale underlies all rates from eastern Canadian mills to destinations in Official Territory. Verification of this hypothesis is difficult because the Grand'Mère Group mileages on which originally-published tariffs were based are not readily available. This data deficiency also affects the validity of comparisons of Grand'Mère rate scales with those from competitor mills in various regions of the United States.

The structure of basic rates from Grand'Mère Group mills to destinations in Official Territory has not changed since 1934. Over the years these rates have been inflated through the series of ex parte increases¹ that were applicable to newsprint freight rates. Until 1952 (ex parte 175), rates for Grand'Mère Arbitrary mills were calculated by adding the fixed arbitrary for a particular mill to the Grand'Mère Group rate to a destination. Since 1952 the rates for Arbitrary mills have been calculated by applying ex parte increases to the full rate (including the arbitrary). The effect of excluding these arbitraries from ex parte increases prior to 1952 has been to distort the tariff-to-distance relationship established in 1934, to the benefit of the Arbitrary mills.

Effective October 31, 1966 the railways published incentive rates designed to encourage shippers to load rail cars more heavily. For minimum loadings of 100,000 lbs. in a 40-foot car and 120,000 lbs. in a 50-foot car, the incentive rates

1. An ex parte increase is a joint agency tariff issued in the United States and approved by the I.C.C. providing for general increases applying on freight traffic moving within the United States and also between the United States and Canada.

available were 85% of the basic rates then in effect (i.e. the ex parte 223 level rates). Since 1966 these incentive rates have grown as new ex parte increases have been implemented, although in some cases a lower increase has been applied to incentive rates than to basic rates (e.g. X-267, 8% versus 12%).

The third type of tariffs employed by the railways is modal competitive rates. These rates, published to meet modal competition, are usually established on a specific point-to-point (mill to market) basis at the incentive loading level (i.e. 100,000/120,000 lbs.). While competitive rates are generally from 60% to 85% of the corresponding incentive rate, there are some cases in which they amount to less than 60% of the incentive rate (e.g. Quebec City or Port Alfred to Chicago), and there are other cases in which they are over 90% of the incentive rate (e.g. Jonquière to Philadelphia). Furthermore, these competitive rates are not strictly distance related. For example, at X-267 levels, the competitive rate from Trois Rivières to Chicago amounted to \$3 per ton more than the competitive rate from Quebec City, even though the distance from Trois Rivières is shorter by 79 miles.

Apparently, modal competitive rates are established by the railways in individual situations following negotiations with a newsprint mill. Where a mill has access to other modes (truck or water), it will negotiate with the railway for a competitive rate to a particular destination. The railway will publish a lower rate, if it feels that circumstances warrant such a rate. In Quebec, it seems that CN has established more of these competitive rates than CP, primarily because more of the mills adjacent to the CN lines have access to water transportation as an alternative. A brief overview of competitive rates established from Quebec mills suggests that most reduced rates have been established to meet water rather than road competition.

4.1.1 The Effect of Ex-Parte Increases

The changes in newsprint freight rates as a result of ex parte increases since 1934 are shown in Table 9. The examples chosen represent a tariff from a Grand'Mère Group mill to a destination in Central Freight Association Territory (Trois Rivières to Chicago) and from a Grand'mere Arbitrary mill to a destination in Trunk Line Territory (Jonquièrre to Philadelphia). These examples are illustrative of the growth in the various types of rates but are not necessarily typical or representative for other purposes or comparisons, because the less common competitive rates are available in both cases.

The data in Table 9 show the benefit gained by Grand'Mère Arbitrary mills because the arbitrary (5¢ in the case of Jonquièrre) was not subject to ex parte increases prior to 1952. In 1934 the difference between the two basic rates shown was 2.4% (or 1¢). At ex parte 168B levels this difference had increased to 7.8% (or 6¢). Because railways publish tariffs in terms of cents per hundredweight, and because they round to the nearest whole cent, this difference in basic rates is now 10.2% (or 24¢). Stated differently, if ex parte increases since 1923 had been applied to the full rate (including the arbitrary), the basic rate from Jonquièrre to Philadelphia would now be 10¢ per hundredweight (\$2 per ton) higher than the published X-349 rate. To a great extent, this advantage accounts for the reluctance of the Arbitrary mills to abandon the group origin and arbitrary rate system established in 1934.

The competitive rates in Table 9 are shown since 1972 (X-267), and represent the earliest data available. It is likely that these rates were established sometime earlier. The two rates shown emphasize the diversity of the point-to-point rates. The competitive rate to Chicago from Trois Rivières in 1972 was 30% less than the incentive rate. On the other hand, the competitive rate from Jonquièrre to Philadelphia is only 10% less than the corresponding incentive rate.

Table 9

Historic Increases in Newsprint Freight Rates from Quebec Mills
¢/cwt

<u>Ex Parte</u>	<u>Effective Date</u>	<u>Trois Rivières to Chicago</u>			<u>Jonquière to Philadelphia</u>		
		<u>Basic</u>	<u>Incentive</u>	<u>Competitive</u>	<u>Basic</u>	<u>Incentive</u>	<u>Competitive</u>
G.O. 50913	Nov. 17, 1934	42			41		
X - 123	Apr. 2, 1938 (10%)	46			45		
X - 162	Jan. 1, 1947 (25%)	58			55		
X - 166D	May 6, 1948 (30%)	75			70		
X - 168B	Sept. 1, 1949 (10%)	83			77		
X - 175C	Dec. 1, 1955 (15%)	95			89		
X - 196A	Mar. 7, 1956 (6%)	101			94		
X - 206A	Aug. 26, 1957 (9%)	110			102		
X - 223A	Sept. 1, 1962 ($\frac{1}{2}$ ¢ or 1¢)	111			103		
			94			88	
X - 256	Aug. 19, 1967 (2¢ or 3¢)	114	97		106	91	
X - 259B	Nov. 28, 1968 (5%)	120	102		111	96	
X - 262	Nov. 18, 1969 (6%)	127	108		118	102	
X - 265B	Nov. 20, 1970 (6%)	135	114		125	108	
X - 267	July 20, 1972 (12% or 8%)	151	123	85	140	117	106
X - 281B	Oct. 23, 1972 (3%)	156	127	88	144	121	109
X - 295A	Aug. 19, 1973 (3%)	161	131	91	148	125	112
X - 299A	Mar. 16, 1974 (2.8%)	166	135	94	152	129	115
X - 303A	Mar. 9, 1974 (4%)	173	140	98	158	134	120
X - 305A	June 20, 1974 (3.3%)	179	145	101	163	138	124
X - 305B	July 5, 1974 (10%)	197	160	111	179	152	136
X - 310	June 17, 1975 (7%)	211	171	119	192	163	146
X - 313A	June 20, 1975 (5%)	222	180	125	202	171	153
X - 313B	Oct. 11, 1975 (2.5%)	228	185	128	207	175	157
X - 330	Oct. 7, 1976 (5%)	239	194	134	217	184	165
X - 336	Jan. 7, 1977 (4%)	249	202	139	226	191	172
X - 343	July, 28, 1977 (0%)	-	-	-	-	-	-
X - 349	June 17, 1978 (4%)	259	210	145	235	199	179

Source: Developed from information contained in the Newsprint Case Report and gathered in interviews.

4.2 Rates for Mills in the U.S. Northeast

Subsequent to its Eastern Class Rates Investigation of 1930, the Interstate Commerce Commission established rates from New York and New England mills to destinations in Official Territory in its decision in the General Newsprint Investigation (197 ICC 738). This decision set rates for newsprint at 25% of the 1st Class freight rate (known as Column 25 rates), subject to two exceptions.¹ Because of these latter exceptions the rate structure created in 1934 was not strictly a distance scale.

The Canadian Board of Railway Commissioners based its decision concerning freight rates from eastern Canadian mills on this ICC decision, acting on the recommendation of the ICC that "International rates from Canadian origins to destinations in the United States should be fairly related to rates from competing producing points in the latter". In making comparisons of present day rates it is important to recognize that both exceptions contained in the ICC decision applied to the rates from those mills which are still in operation in the U.S. Northeast, namely the Northern Maine group of mills.

1. These two exceptions were:

- i. Key rates established in the Eastern Class Rates Investigation from certain origins on interterritorial shipments to key points in destination groups were to be observed as maxima at intermediate points, taking precedence over rates based on distance scales.
- ii. Rates from mills in northern Maine to Central Territory were not to exceed rates from Bangor group mills by more than one cent per hundred pounds.

4.2.1 The Effect of Ex-Parte Increases

The freight rates from New England mills to Official Territory have been subject to the same ex parte increases that have applied to rates from eastern Canadian mills to Official Territory, as summarized in Table 9, with the one exception of ex parte 330 (effective date October 7th 1976). For this one exception New England to Official rates were not increased while eastern Canadian rates were increased by 5%. Because of this "hold-down" the New England rates are now slightly more advantageous than they were under the original relationship established in 1934. Evidence presented during The Newsprint Case indicates that rates to Official Territory from Grand'Mère Group mills were established at a level approximately 10% higher than the rate scale from Northeast U.S. mills on a mileage-equivalent basis. As a result of the ex parte 330 "hold-down", this differential (in basic rates) is now approximately 12%.

4.3 Rates from Mills in the U.S. South

At the time of the ICC and Board of Railway Commissioners decisions in 1934 there was no newsprint production in the U.S. South. As a result, no rates were specifically established from the South and Southwestern Territories into Official Territory. It appears that, with the start-up of the newsprint industry in the U.S. South in the 1940's and early 1950's, basic freight rates into Official Territory were at Column 25 levels plus ten percent (the ICC seems to allow a 10% protective surcharge on inter-territorial shipments). Thus, on a mileage equivalent basis, rates on shipments from the U.S. South to destinations in Official Territory were roughly 10% higher than the rates applicable from New England mills (and, therefore, approximately equivalent to the scale from Grand'Mère group mills). This relationship held true for basic and incentive rates until ex parte 267 took effect in June 1971. The sole exception was on shipments to the Illinois Freight Association Territory, for which a lower rate schedule was available to meet barge and truck competition (see below).

Shipments within and between Southern Territory and Southwestern Territory have the advantage of the American Pulp and Paper Association (A.P.&P.A.) long-haul newsprint scale of rates. This modal competitive scale has an open-ended feature which establishes a rate for the initial 100,000 lbs of a loading and a second rate for that portion of the loading in excess of 100,000 lbs. Since the first rate is less than the normal incentive rate (by approximately 15%), and since the rate on the excess was established at 70% of the first rate, this scale of rates is extremely advantageous on large newsprint shipments. Shipments to the I.F.A. Territory also benefit from this scale.

As was pointed out in Section 4.1, the Southern border of Official Territory runs through the "border cities" of St. Louis, Louisville and Cincinnati. For purposes of defining Southern Territory for the application of these competitive rates, this border is moved northward to run through Washington (see Figure 1). As a result, these major consumption centres receive the highly favourable A.P.&P.A. freight rates on shipments from newsprint mills in Southern and Southwestern Territories. Of particular concern to the Canadian newsprint industry is the fact that in recent years Southern mills (particularly Calhoun, Tennessee) have been able to obtain modal competitive rates based on the A.P.&P.A. scale into many of the major markets of Official Territory. Much as in the case of competitive rates published for Canadian mills, these rates are established for specific mill-to-market shipments. A major complaint of the Canadian newsprint industry is that these highly advantageous rates have become so widespread into Official Territory that virtually no traffic moves northward from Southern Territory without them. Without further information it is not possible to substantiate this situation at this time.

4.3.1 The Effect of Ex Parte Increases

As was stated previously, basic and incentive rates for shipments from Southern Territory to Official Territory were approximately 10% higher than shipments within Official Territory on a distance equivalent basis until 1972. Beginning with X-267, a series of what might be termed "selective" ex parte increases have been implemented, the net effect of which has been to improve the position of Southern producers vis-a-vis

Table 10

Summary of Ex Parte Increases Since 1971, Incentive Rates
(1971 = 100¢ per cwt)

	<u>Grand'Mere to Official</u>		<u>Millinocket to Official</u>		<u>Southern to Official</u>		<u>Southwestern to Official</u>		<u>Within Southern</u>	
	(%)	Rate	(%)	Rate	(%)	Rate	(%)	Rate	(%)	Rate
X-265		100		100		100		100		100
X-267	8%	108	8%	108	6%	106	6%	106	3%	103
X-281	3%	111	3%	111	3%	109	3%	109	0%	103
X-295	3%	114	3%	114	3%	112	3%	112	3%	106
X-299	2.8%	117	2.8%	117	2.8%	115	2.8%	115	2.8%	109
X-303	4%	122	4%	122	4%	120	4%	120	4%	113
X-305A	3.3%	126	3.3%	126	3.3%	124	3.3%	124	3.3%	117
X-305B	10%	139	10%	139	0%	124	10%	136	0%	117
X-310	7%	149	7%	149	7%	133	7%	146	0%	117
X-313A	5%	156	5%	156	0%	133	5%	153	0%	117
X-313B	2.5%	160	2.5%	160	2.5%	136	2.5%	157	2.5%	120
X-330	5%	168	0%	160	0%	136	5%	165	0%	120
X-336	4%	175	4%	166	4%	141	4%	172	0%	120
X-343	0%	175	0%	166	0%	141	3%	177	0%	120
X-349	4%	182	4%	173	2%	144	4%	184	2%	122

Source: Adapted from tables provided by the Canadian Pulp and Paper Association.

their competitors. In some of these cases Southwestern producers have also gained an advantage in shipping costs, since their shipments to Southern Territory move at "within South" rates.

The net effect of the "selective" ex parte increases on incentive level rates is summarized in Table 10. While incentives rates to Official Territory have increased by 82% from eastern Canada and by 73% from Maine since 1971, the incentive rates from Southern Territory to Official Territory have increased by only 44%. While it is true that incentive rates from Southwestern mills to Official Territory have risen by 84%, this "disadvantage" may be largely illusory since only a small proportion of the output of these mills is shipped to Official Territory, and most of these shipments probably move under modal competitive rates (although information is not yet available to substantiate this presumption). Finally, it is worth noting that the advantageous within-South rates based on the A.P.&P.A. long-haul scale have increased by only 22% since 1971.

5. COMPARISONS OF NEWSPRINT FREIGHT RATES

There are many factors other than distance that could lead to different freight rates for the transport of an identical commodity such as newsprint. Among these factors are the annual volume, the number of carloads per shipment, the loaded weight per car, the value of the shipment, the degree of intra-modal and inter-modal competition, the market competition for the product, the traffic density over the lines involved, and the possibility of backhauls. However, for the purpose of determining whether or not various rate scales are essentially different, distance is the only viable yardstick for comparisons. The other factors listed above enter into the discussion of why rates are different - but only if a difference has been established through distance-equivalent rate comparisons. The purpose of this section is to examine whether or not newsprint freight rates to Official Territory from Quebec mills are different from rates from Southern Territory, and whether this relationship has an historical basis or is a recent phenomenon.

5.1 The Newsprint Case

Beginning in May 1970, Anglo-Canadian Pulp and Paper Mills Ltd. and a number of other eastern Canadian newsprint producers initiated an appeal of the railway freight rates on the movement of newsprint from their mills to markets in the United States. Contemporaneously a similar appeal was launched before the Interstate Commerce Commission (ICC Docket 35265). The basis of the complaint before the Railway Transport Committee (R.T.C.) was that the rates in question were so much higher than those paid by newsprint producers in the southern

United States that Canadian mills found themselves at a severe competitive disadvantage in areas within the United States that had been traditional markets for their product. Between 1972 and 1974 hearings were conducted, and in October 1975, after a decision on the parallel case before the ICC had been made, the Railway Transport Committee issued a report concurring with the ICC's finding that the rates in question had not been proven prejudicial. While there are many interesting facets of this case, which has come to be referred to as "The Newsprint Case", the following discussion is restricted to the efforts of the newsprint producers to establish that rates were different, the rebuttal of their evidence by the railways, and the judgment of the R.T.C. concerning the evidence.

The core of the applicants' evidence on rate differentials was a carefully constructed table which attempted to establish a distance scale (at 50 mile intervals) for freight rates from a variety of producer origins to various sub-regions of the U.S. market. At both the basic and the incentive levels, these scales showed that Grand'Mere Group rates were consistently the highest on a distance-equivalent basis. The applicants also provided comparative freight rates from Grand'Mere Group mills to selected destinations in the United States, and attempted per ton-mile and per car-mile revenue comparisons.

The railways contended that no mileage scale was applicable in certain cases, and that the applicants had ignored competitive rates and rates from Grand'Mere Arbitrary mills. They produced a set of rates from eastern Canadian mills. These tables indicated that Grand'Mere and Arbitrary mills were sometimes at a freight rate disadvantage and sometimes at an advantage versus rates from Southern mills.

The R.T.C. agreed with the shortcomings argued by the railroads, accepted the argument that the information was inconclusive, and emphasized the weakness of the applicants' position caused by considering neither Arbitrary rates nor competitive rates.

The applicants in The Newsprint Case are bitter about the reception accorded their evidence before the Railway Transport Committee. Of particular concern to them is what they consider to be the spurious refutation based on a failure to consider competitive rates. Their position is that the complaint was against the level of basic and incentive rates and should have been decided on that basis alone. Whatever the merits of the positions taken by both sides in this case, the purpose of this review has been to establish the complexity and controversial nature of newsprint freight rate comparisons prior to attempting some specific comparisons in the next sections.

5.2 Incentive Rate Comparisons

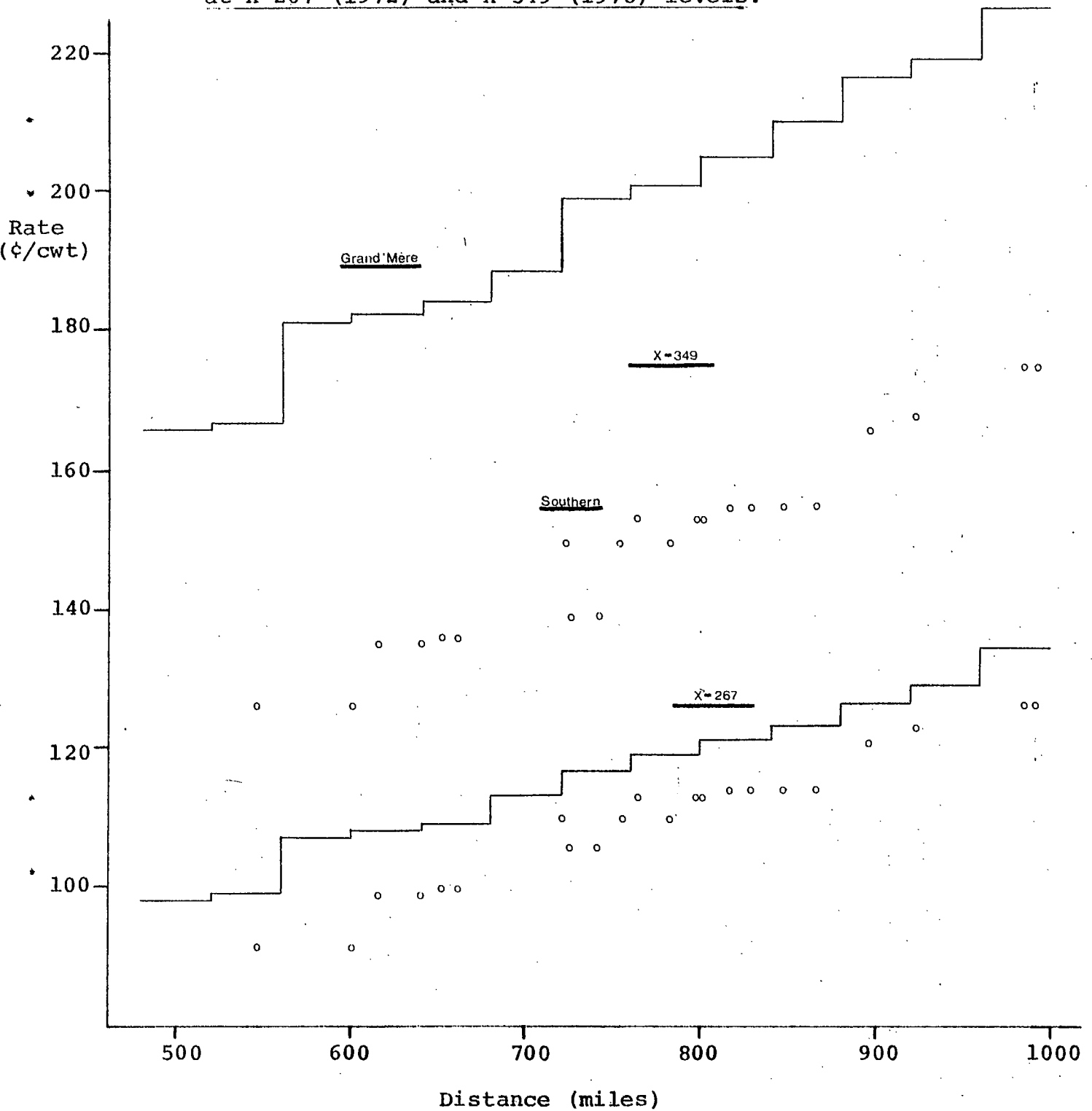
The appendices to "The Newsprint Case" provide a wealth of information on newsprint freight rates at X-267 levels. With this information, and with hindsight based on the deliberation concerning evidence on freight rates that took place during the 1974-75 hearings, it is possible to put together a new analysis providing a more palatable comparison of different rate schedules. In this instance, the comparison is limited to incentive rates from eastern Canadian and southern United States mills to Official Territory.

Appendix 12 of the Newsprint Case lists incentive rates from three southern mills to eight destinations¹ in Official Territory. These rates are displayed in Figure 2. Also shown in Figure 2 is the step function of newsprint freight rates from Grand'Mere Group mills at X-267 levels. This function was calculated from the scale set forth in the 1934 decision of the Board of Railway Commissioners (and reproduced in Table 7) by applying successive ex parte increases, up to the X-223 level, calculating incentive rates at the X-223 levels, and applying successive ex parte increases to these rates up to X-267 levels. When displayed graphically this information indicates that while Southern rates were consistently lower than Grand'Mere Group rates on a mileage-equivalent basis, this differential was not more than 10%. However, the picture becomes more confused when actual Grand'Mere mills-to-market distances are examined. In several instances Quebec mills were able to ship newsprint over longer distances for lower incentive rates than Southern mills. For example, at X-267 levels the rate for shipments to Cleveland was \$1.08 per hundredweight from Quebec City (a distance of 782 miles), whereas the rate to Detroit from Catawba was \$1.13/cwt, (a distance of 764 miles). When distances and rates from Arbitrary mills are also included in the comparison, it becomes difficult to conclude that any real difference existed between the Canadian incentive rates and rates from U.S. southern producers at X-267 levels.² Because of the "hold-downs" available on Arbitrary rates up until 1952,

-
1. These destinations are: Boston, Buffalo, Cleveland, Detroit, New York, Philadelphia, Pittsburgh and Rochester.
 2. In one particularly glaring case, the incentive rate from Chandler, Quebec to New York City was \$1.04/cwt for 956 miles while the rate from Coosa Pines to Buffalo (a distance of 922 miles) was \$1.23/cwt, a difference of 18% in favour of the Canadian mill.

Figure 2

Comparison of Incentive Freight Rates for Newsprint Shipments from Grand'Mère mills and Southern U.S. mills at X-267 (1972) and X-349 (1978) levels.



Source: See description of method in text, page 32.

these rates were considerably lower than Grand'Mere Group rates and were usually lower than incentive rates from the U.S. South on a mileage equivalent basis. It thus appears that no substantive difference in incentive rate levels existed at the time of The Newsprint Case.

As was mentioned earlier (in Section 4.3.1), since the Newsprint Case a number of "selective" ex parte increases have improved the position of Southern producers shipping to markets in Official Territory. To examine the rate situation as it exists in 1978, the incentive rates have been up-dated to ex parte 349 levels by applying the successive increases applicable to each individual rate. The results of this analysis are also shown in Figure 2.

The gap between eastern Canadian and southern U.S. incentive rates to Official Territory has grown substantially in the last seven years. That gap now represents a freight rate cost advantage to southern mills of between 20% and 25% on a distance-equivalent basis.

5.3 Comparing Competitive Rates

Competitive newsprint freight rates appear to have become more common in recent years, and undoubtedly a growing proportion of newsprint shipments travel at competitive rates. Unfortunately, it has not yet been possible to collect sufficient information to analyse and discuss these competitive rates in terms of the present-day levels (i.e. X-349). The most recent collection of competitive rates that is sufficient to

allow analysis is contained in the evidence presented by the respondent railways in The Newsprint Case (Appendix 12). These tables present ex parte 267 level competitive rates that existed in 1972 from Grand'Mere and Arbitrary mills to five cities¹ in Official Territory. These same tables provide rates to the "border cities" of St. Louis, Louisville, Cincinnati, and Washington from three Southern and from three Southwestern origins. These latter rates are based on the A.P.&P.A. long-haul newsprint scale available for shipments "within the South". Most of the competitive rates available in these tables are displayed in Figure 3, based on loadings of 140,000 lbs.

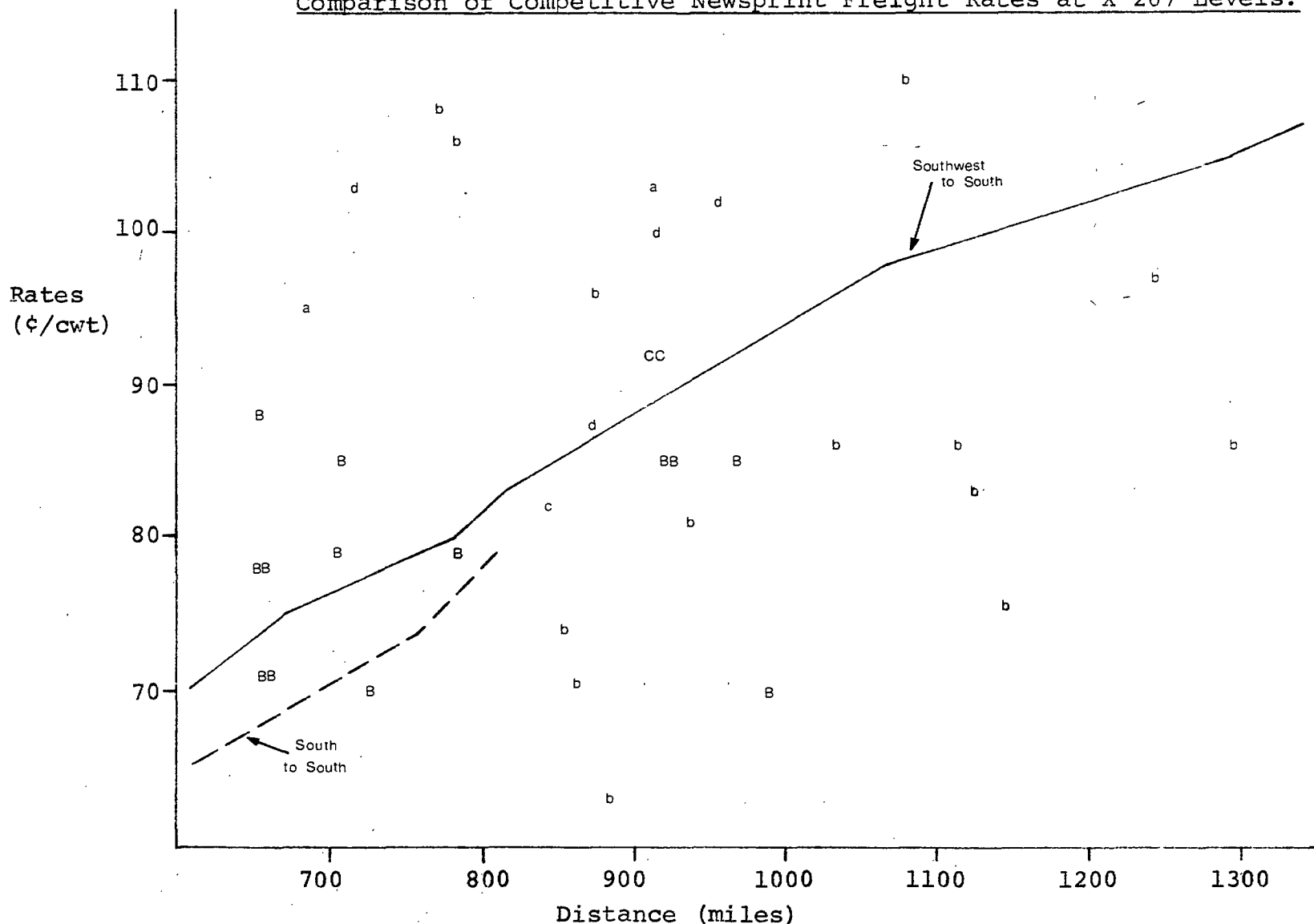
As Figure 3 shows, the long-haul newsprint scale is basically a distance-based rate scale. Southwestern rates are marginally higher (approximately 5%) because of the selective nature of ex parte 267 increases, which were favourable to southern shippers.

The seemingly-random scattering of the many competitive rates from eastern Canadian mills emphasizes that these rates are not strictly a function of rail distance, but take into consideration a number of other factors. However, it is worth noting that just as many of these competitive rates are lower than the A.P.&P.A. scale as are higher, on a distance-equivalent basis. That is to say, at ex parte 267 levels it would be difficult to conclude on the basis of this evidence that Canadian rates were consistently higher than those faced by shippers in the Southern and Southwestern United States.

1. These cities are: Boston, Cleveland, Detroit, New York, and Philadelphia. No competitive rates were shown from eastern Canada to Cincinnati, Louisville, Pittsburgh, Rochester, St. Louis, or Washington.

Figure 3.

Comparison of Competitive Newsprint Freight Rates at X-267 Levels.



Note: Uppercase letters indicate rates from Grand'Mere Group mills, lowercase letters indicate rates from Arbitrary mills. (A) Rate includes off-track delivery at destination. (B) Not subject to unloading or delivery allowance. (C) Not subject to unloading or delivery allowance but subject to 24 hours for unloading. (D) Includes delivery service or on or off-track allowance.

As indicated previously (in Table 10), since 1972 Southern producers have been favoured by a series of selective ex parte increases. Their rates applicable to within - South shipments have increased by only 22% while similar rates from Quebec mills increased by 82%. Assuming that competitive rates were equivalent in 1972, this differential growth would lead to a 50% difference in Grand'Mère versus Southern competitive rates at X-349 levels.

There is some evidence to suggest that competitive rates are presently applicable from some Southern mills to some Official Territory destinations. When these rates were established, and the extent to which they apply to major market destinations in Official Territory have not yet been determined. It is important to note, however, that these rates increase with each ex parte applicable to shipments from Southern to Official Territory. Since 1972 the cumulative effect of these increases has totalled 44% (see Table 10). Thus, the expected advantage on competitive rates to Official Territory from Southern versus from Quebec mills could be as low as 25% or as high as 50%, depending upon when the new competitive rates were established.

6. FACTORS AFFECTING TRANSPORTATION COSTS

As noted in Section 3, calculating and analyzing the differential in average costs between Quebec and U.S. South producers are difficult because the various factors influencing transportation costs are not necessarily the same for producers in the two regions. In Sections 4 and 5, which discussed the structure and level of rail rates for newsprint, it was concluded that incentive rates for the U.S. South producers are approximately 20% to 25% lower than incentive rates for Quebec producers, and that a similar differential probably exists in competitive rates. While differences in rates between the two regions are an important source of the discrepancy in average costs, our research indicates that rate differences can account for a maximum differential in the order of 50% (under the relatively pessimistic assumption that all Quebec newsprint is carried by rail at incentive rates and all U.S. South newsprint is carried by rail at competitive rates). Clearly, explanatory factors other than rail rate differentials are required. A complete study of these factors is beyond the scope of this report; nevertheless, this section notes some significant conditions affecting the cost differential. It must be emphasized that the significance of individual factors cannot be quantified because of a lack of information. The purpose of this section is to list the relevant factors rather than to provide a complete discussion.

6.1 Distance

Quebec producers' main market is in the Northeast and North Central U.S. (Official Territory for rail rates) while U.S. South producers' prime market is within the Southern U.S. The average distance to market is thus much greater for Quebec than for U.S. producers.

The CNR newsprint study indicated an average trip length to the U.S. of about 900 miles for Eastern Canadian producers. A comparison of average distance to market for U.S. South versus Canadian producers, obtained from the ICC report on The Newsprint Case, is shown in Table 11 below.

TABLE 11

Average Short Line Haul Distance
(miles)

Complainant Mills*	752
Herty, Texas	367
Sheldon, Texas	405
Catawba, S.C.	464
Calhoun, Tenn.	609

Source: Interstate Commerce Commission, Initial Decision No. 35265, 1975.

* Complainants are: Anglo-Canadian, CIP, Consolidated-Bathurst, Domtar, Donohue, Gaspesia, James McLaren, Price, St. Raymond.

Our research indicates that the importance of distance as an explanatory factor in average cost differentials probably increases as the relative cost differential increases. For comparisons of average costs which show differentials of up to 50%, differences in rail rates probably account for the major part of the discrepancy; however, for comparisons of average costs which show differentials of 100% or 200%, it is likely that the major factor is shipping distance. For example, the \$11/ton average rail cost for U.S. South producers quoted in the Quebec Submission (Table 6) probably represents an average shipping distance of less than 350 miles. While this hypothesis seems reasonable, it cannot be proven without further information about average shipping distance, types of rail rates applicable and other shipping conditions for each example of average costs.

6.2 Intermodal Competition

As indicated in Sections 4 and 5, producers can negotiate lower, "competitive" rates with the railways if another mode of transport is a cheaper substitute for rail at incentive rates. The extent to which modal competitive rates are available and the size of the discount provided by competitive compared to incentive rates significantly influence average shipping costs. Unfortunately, measures of the quantitative impact of modal competitive rates on transportation costs are not readily available.

The degree of intermodal competition has a direct impact on rail rates through the availability of specific point-to-point competitive rail rates for Canadian producers shipping to the U.S. and for U.S. South producers shipping to Official Territory. The general level of within-South rail rates has also been directly influenced by intermodal competition from barge and truck transport. The average rail cost paid by any producer thus depends on the availability of specific competitive rates and the size of the discount for competitive rates vis-a-vis incentive rates. In Section 4 it was indicated that competitive rates vary between 10% and 40% below the relevant incentive rate, depending on the circumstances specific to each individual producer. There is no general pattern to the size of discounts for Canadian versus U.S. producers which can be discerned from the information now available.

For Canadian producers, there is some information available on the proportion of newsprint carried at competitive rail rates. The CNR newsprint study indicated that 40% of the tonnage shipped by rail in 1973 was carried at competitive

rates. Evidence presented by the railways in The Newsprint Case indicated that 5% to 10% of the tonnage was shipped at basic rates, 24% to 31% at competitive rates and 64% to 66% at incentive rates. Most of the competitive rates available to Quebec producers are water competitive rates; however, there are also truck competitive rates (e.g. Bromptonville to Boston). Similar information about the U.S. South producers is not available. While both water (i.e. barge) and truck competitive rates are available to Southern producers, the volume of newsprint to which these rates apply is not known.

The shorter distance to markets for U.S. South producers and the greater reliance on truck (e.g., see Sandwell Report) may indicate that U.S. South producers are shipping a larger percentage at competitive rates than Canadian producers. Quebec producers allege that a greater number of competitive rates are available to U.S. South producers than to Quebec producers and that consequently a larger proportion of U.S. South newsprint is carried at competitive rates than the proportion of Quebec newsprint carried at competitive rates. As indicated in Section 4, without further information this claim cannot be substantiated.

Intermodal competition also has another effect on rail shipping costs. For example, intermodal competition has been cited as one of the reasons that the Southern U.S. railways have not increased their rates on newsprint as much as the Northern U.S. and Canadian railways.¹

1. For example, by industry and CNR spokesman.

In the same manner, the degree of intermodal competition is also one of the factors affecting the costs of truck and water transport. No information is available to us on the costs of truck or water transport in the U.S. South. For Canadian producers some general information on the use of truck is available.

In Section 3 the relative use of the three modes of transport by Quebec companies was shown. While individual producers may rely more on truck or water transport than the average, Quebec producers rely predominantly on rail. There is a trend towards greater use of trucking, but there are also constraints on increasing truck shipments. Distance to market is the most obvious restriction on trucking newsprint. For example, in its submission to the Quebec hearings, Domtar estimated that trucking has a competitive advantage over rail for distances up to 800 miles (return). This compares with the average return mileage for CNR shipments of newsprint from Eastern Canada to the U.S. of about 1800 miles and average return mileage of 1500 miles for complainants in The Newsprint Case. Another major obstacle to greater use of trucks is the historical orientation of the Quebec producers to rail. Because of this, many of the mills have capital tied-up in rail-oriented equipment. Switching to greater reliance on trucks would also necessitate capital investments for many mills. Companies which make substantial use of trucks send a large proportion of their total truck shipments in their own private trucks. For example, 60% of Kruger's truck tonnage in 1976 was handled by company-owned trucks, and Domtar handles about 200,000 tons annually in their own trucks along the corridor between Quebec City and St. Catharines, Ontario. For mills located farther from highway networks and with substantial investments in rail-oriented equipment, truck shipments may not present a competitive alternative to rail shipments. The degree of government

regulation and the level of licences and other fees may introduce a difference in the cost of truck transport in Quebec relative to that in the U.S. South. This aspect of costs has not been researched.

Inter-modal competition (both through direct effects on rail rates and through indirect effects on rail, truck and water transport charges) has worked to the advantage of U.S. South producers, although the size of this advantage cannot be determined without further data.

6.3 Technical Factors

Numerous technical factors can affect both average transportation costs and the rate scale itself. While the factors outlined here are mainly relevant to rail shipments, similar factors undoubtedly affect truck and water shipments as well. Because the emphasis in this paper is on rail costs and because of time and information constraints, only a few technical factors which influence rail costs are mentioned here. These factors include:

Volume and Frequency - Larger, more frequent shipments tend to have lower rates than smaller, irregular or infrequent shipments. The joint CNR-NDR study found that rationalization of rail shipments was hampered by each producer shipping to many different publishers. This practise is largely a result of the publishers' desire for diversity of supply. This may be one of the reasons that Canadian producers are at a disadvantage vis-a-vis U.S. South producers with respect to weight (and perhaps frequency) of rail shipments. Data on the average weight per rail car show that U.S. South producers average heavier loads per car (see Table 12). It should be noted that Southern U.S. railways have 60' cars while, for technical reasons, Canadian railways supply only 40' and 50' cars.

Table 12
Average Weight Per Carload

<u>Source/Mills</u>	<u>Tons Per Car</u>	
1. Mills served by CNR, 1973	40'	47.3
	50'	70.2
	composite	65.6
2. NDR mills, 1973	40'	37.2
	50'	66.2
3. ICC Decision, 1973	complainant	56.4
	mills	
	Herty, Tex.	70.3
	Sheldon, Tex.	70.3
	Catawba, S.C.	84.6
Calhoun, Tenn.	80.0	

Source: CNR, Newsprint Distribution Study, Vol. 1, 1974.

NDR, Distribution of Eastern Canadian Newsprint to United States Market, 1974.

Interstate Commerce Commission, Initial Decision in Newsprint Case, No. 35265, 1975.

Railway Companies - There is a car shortage across the whole of North America. Spokesmen from both CNR and pulp and paper companies acknowledged that the shortage was creating problems. Because of the shortage, U.S. railways may retard the return of CN newsprint cars and use them to back-haul other commodities. CN receives the same per diem rate from U.S. railways regardless of the use of the car. The general agreement among railways stipulates that other railways' cars on return trips should be moved in the

general direction of the origin, but this directive is not always followed. The same problem exists in the U.S. South, and recently the ICC fined Southern Pacific and Conrail for using other railways' cars. Canadian producers are probably at a greater disadvantage than U.S. South producers, because of the greater distance, which increases the opportunity to vary the return route to maximize use of another railway's cars. Apparently CN has little influence on the use of CN cars by U.S. railways. In addition, the car shortage is aggravated by winter storms, which are obviously not as much of a problem in the Southern U.S. For example, during the winter of 1977-1978, CNR placed an embargo on newsprint shipments to nine U.S. states because cars were not returning within a reasonable time due to severe winter storms.

Generally, railways in the U.S. are in poor financial positions, with low returns on equity. Among U.S. railways, a few, especially in the South, are in better financial health (e.g., Southern Pacific and Southern). The better financial position of the Southern U.S. railways and the greater inter-modal competition in the U.S. South have been two important factors in the Southern U.S. railways' decision to forego rate increases (Southern Rail Co. apparently is a rate leader).

Other Shipping Conditions - A number of other shipping conditions, for which no quantitative data are available, also influence rate scales and average transportation costs. These factors include value of the shipment, market for the commodity being shipped, possibility of backhauls, density of traffic over rail lines and number of line-interchanges per trip.

7. SUMMARY AND CONCLUSIONS

A comparison of the transportation costs facing producers in two different regions raises complex questions to which precise answers are not readily available. Nevertheless, some important factors affecting the differential between the delivery costs for Quebec producers and for U.S. South producers have been identified. A summary of the evidence, and the conclusions drawn from it, are presented in this final section.

7.1 Limitations

It is important to be aware of the limitations on particular comparisons. A simple comparison of average costs neglects the effect of crucial factors, especially distance. A comparison of one particular rate cannot be representative even if the distance is equivalent and both rates are of the same type (e.g. incentive rates on a 70 ton carload). Because individual rates must be viewed in perspective, a single rate comparison is not meaningful unless all shipping conditions are considered. In the case of newsprint it must be emphasized that the major markets for Quebec and the U.S. South producers are different areas, at different distances from the producers and with different railways and shipping conditions.

7.2. Rate Scales

Incentive rates for newsprint shipments from producers in the U.S. South are generally 20% to 25% lower than incentive

rates applicable to shipments originating with eastern Canadian producers. Although individual cases exist in which this advantage is somewhat higher, there are also many instances (particularly among rates applicable from Grand'Mere Arbitrary mills) in which the differential is smaller. This differential has been a recent phenomenon, brought on by the selective ex parte rate increases which have occurred since 1972.

Although the analysis of competitive rates from eastern Canadian mills is complicated by the variety of factors which affect the setting of these rates, it is clear that no real differential existed at the ex parte 267 rate levels in effect in 1972. Because the application of ex parte increases in the last six years has been even more "selective" than has been the case for incentive rates, it is likely that a consistent advantage for Southern producers has appeared during this period. The size of the differential cannot be accurately estimated until further information has been obtained.

7.3 Distance

Even if they faced equivalent rate scales, Quebec producers could expect to pay higher transportation charges than U.S. South producers simply because of their greater distance from markets. This locational disadvantage also affects rates because newsprint from Quebec is involved in a greater number of rail interchanges than U.S. South newsprint and because the greater distance reduces the Quebec producers' ability to use truck as an alternative to rail.

7.6 Conclusions

- A. A comparison of average transportation costs or two particular rail rates is only meaningful in the context of the total shipping environment.
- B. U.S. South producers have a current rail freight cost advantage over Quebec mills of about 20% to 25% on a distance-equivalent basis for incentive rates. The U.S. advantage in incentive rates was at most 10% in 1971, and has grown recently because of the differential impact of selective ex parte increases.
- C. Modal competitive rates available in 1971 did not display any consistent advantage to either U.S. South or Quebec producers. The differential impact of ex parte increases since 1971 has benefitted U.S. South producers.
- D. Our research indicates that where examples of average costs for Canadian and U.S. producers show large relative cost differentials, the most important explanatory variable is shipping distance. This conclusion is derived partly from a maximum rate differential in the order of 50%, and partly from comparisons which show that large differentials occur when U.S. South producers have a short shipping distance.
- E. Other factors, especially the degree of intermodal competition, are also sources of cost differentials between the two regions.

