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AREA ECONOMIC SIGNIFICANCE

OF

RAIL CAR FERRY SERVICE

ACROSS THE

STRAITS OF MACKINAC

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PREPARED BY:

THE ECONOMIC RESEARCH COUNCIL

SEPTEMBER, 1971

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SUMMARY AND CONCLUSIONS

This study is confined exclusively to the economic impacts which may be expected from two possible events: the abandonment of rail car ferry service across the Straits of Mackinac; and possible subsequent abandonment of related segments of service. Since it is limited to the economic impacts alone, it cannot be treated as a foundation for policy judgments without concurrent consideration of other aspects of the problem.

The conclusions reached through surveys of shippers, receivers, community leaders, planning officials and many other manufacturers in the impact study area are as follows:

Economic Impacts from Abandonment of the Ferry Service:

None. New markets are opening for goods normally shipped. More specialized truck designs, together with lower toll costs at the Mackinac Bridge have made truck hauling economic for the distances required.

Economic Impacts from Abandonment of Related Segments of Service:

Mixed. St. Ignace to Trout Lake: None.

Mackinaw City to Cheboygan: None.

Cheboygan to Gaylord: A long range threat of impact should other contingencies occur.

Gaylord to Bay City: A serious impact at Gaylord. No impact south of Gaylord.

Mackinaw City to Mancelona: An estimated rise in construction costs of 3% to 5% in the Mackinaw City area.

Mancelona to Sand Lake: A moderate to serious impact on agriculture and scattered industry.

Walton Junction to Traverse City: None.

Economic Impact in Terms of Hampering of Future Industrial Development:

From abandonment of the ferry service: None.

From abandonment of related segments of service: None.

I. INTRODUCTION

This is a study of economic impacts which may be expected from a series of different possible events. The study will deal with the following questions:

1. Will there be an immediate, direct economic impact from abandonment of rail car ferry service across the Straits of Mackinac?
2. Will there be an immediate, direct effect from abandonment of trackage leading to the ferry, since such abandonment might come about after the ferry was abandoned?
3. In case the ferry is abandoned, will industrial development of the area be hampered?
4. If the related trackage is also abandoned, will this further retard industrial development in the area?

The study was not made to recommend an official position on the question of ferry abandonment. It cannot do so because it has been confined to questions of economic impact only, and there are many other considerations involved which are outside the scope of this study. One non-economic question, for example, would be the value of the ferry service as a transportation link in case of national emergency. Other questions, such as the cost of ferry operations, and the costs and rates of using alternative gateways are treated in a companion study commissioned by the Michigan Department of Commerce.

All of these questions will have an influence on the public policy decisions which will be made.

The economic evaluations made in this report are organized according to the specific instructions given by the Michigan Department of Commerce in its contract with the Economic Research Council. These instructions were:

1. Survey major shippers using the Mackinac Gateway to determine the effect of proposed abandonment on their operation.
2. Survey planning and development organizations in the affected area to obtain their assessment of potential impact of the proposed abandonment.
3. Utilizing data already available from studies by the Upper Great Lakes Commission and other sources, assess the current prospects for future growth in the area and project the effect on future growth which the abandonment of the ferry would have.

More than 80 people were interviewed in the course of this study, in addition to many members of the staff of the Office of Economic Expansion at Lansing. Each person was most courteous and helpful, and we wish to express our appreciation. Those interviewed are listed as part of the appendix.

II. THE AREA OF POTENTIAL ECONOMIC IMPACT

In order to provide a proper framework for this study, several questions must first be asked. The following questions will be taken up in this chapter. What basis is used to measure the economic impact of a given event such as the abandonment of ferry service? Should it be considered in terms of individuals? In terms of specific companies? Or should it be considered in terms of geographic areas? If geographic, which areas would be involved?

When individuals have invested many years in their careers, and are suddenly in danger of losing their jobs, it is difficult to speak in terms of cold statistics, no matter how few people are involved. Nevertheless, changes do take place. In fact, the economy of any area is in constant motion. For this reason, the number of lost jobs deriving from any event must be measured for economic impact as a percentage of the total employment in an area. If the percentage is not significant, then the impact must be treated as minimal.

The effect of a change on individual companies must also be related to the entire area. If the loss of rail service would increase a company's costs or make delivery more inconvenient, the impact could not be considered serious unless the company's operations had to be changed to a degree which would result in large unemployment or massive price increases, thereby affecting the area economy. Any lesser impact on a company will not add up to a serious economic hardship for an entire area. The greatest good for

the greatest number determines the economic health of an area. Therefore, the impact on areas must be the basis for making a meaningful judgment.

Definition of the Area of Economic Impact

The area subject to potential impact resulting from loss of ferry service and related trackage is the eastern portion of the upper peninsula and selected counties in the north central part of the lower peninsula which are serviced by the Penn-Central Railroad.

The following counties are involved:

Upper Peninsula

Mackinac

Chippewa

Luce

Schoolcraft

Alger

Delta

Marquette

Lower Peninsula

Cheboygan

Otsego

Crawford

Roscommon

Ogemaw

Arenac

Emmet

Charlevoix

Antrim

Kalkaska

Wexford

Osceola

Mecosta

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The western portion of the upper peninsula has been excluded because it is part of the Wisconsin economy. Other authorities agree, such as Rand McNally & Co., or Bogue and Beale in their Economic Areas of the United States. The terrain, minerals and agriculture are different from the eastern upper peninsula, and the financial ties of the western counties are with correspondent banks in Milwaukee and Green Bay rather than Detroit. The western portion is serviced with rail transportation which is primarily oriented in a north-south direction, with a wide choice of railroad service. Its railroads include the Soo Line to Chicago; the Chicago, Northwestern Railroad; the Chicago, Milwaukee, St. Paul and Pacific Railroad; the Copper Range Railroad, and the Escanaba and Lake Superior Railroad. Each of these provides good connections through the gateways across Lake Michigan, and through the Chicago Gateway as well. This area would be little affected by the loss of ferry service at the Mackinac Gateway.

Several counties in the northern part of Michigan's lower peninsula are also excluded from the study area. In Northeastern Michigan, the counties of Presque Isle, Alpena, Alcona and Iosco are excluded because they are effectively served by the Detroit and Mackinac Railroad. The line is profitable, has expanding revenues, and is not likely to seek abandonment if the ferry service is lost.

In Northwestern Michigan, the counties served solely by the Chesapeake and Ohio Railroad from Ludington north to Petoskey are also excluded. The few counties in this section of the state which

are served both by the Chesapeake and Ohio and by the Penn-Central, are included in the study area. However, the Chesapeake and Ohio Railroad does not have a terminal connecting with the ferry service, so the counties which it serves exclusively cannot be expected to be seriously affected by loss of ferry service over the Straits.

Shippers Located Outside the Study Area

Some shippers using the Mackinac Gateway are located outside of the defined impact area. Most of these use the Gateway to ship to destinations outside of Michigan. Since this is a study of local economic impacts, these shippers were not considered because they have many alternate routes available.

One large shipper, however, is located in Michigan, but outside the selected impact study area. This shipper, the Celotex Corporation at L'Anse, Michigan, shipped 46 cars of wallboard over the Straits of Mackinac in 1969. The location of the plant is in Baraga County, which is in the western portion of the upper peninsula, outside of the study area. According to the plant traffic manager, the Mackinac Gateway is now seldom used. This routing is specified on a bill of lading only "to serve the occasional customer in lower Michigan where such shipment would be economically feasible. Under normal circumstances, the company prefers to ship to Detroit and other southern Michigan points via the Chicago Gateway because of better service and shorter delivery time."

Another shipper located outside of the study area which uses the Mackinac Gateway is the Algoma Steel Corporation. This is a

Canadian Company located at Saulte Ste. Marie, Ontario. The effect of possible abandonment of the ferry was investigated with this company, however, because the loss of the ferry might reduce employment at Algoma and possibly reduce employment of Michigan residents who commute to work at this plant.

Algoma Steel Corporation's annual report, indicates that 16% of its sales goes to customers in the U. S., principally in the midwest. These sales produce little employment for Michigan residents, however. According to the personnel office at Algoma, the plant employs only 12 to 20 persons who reside in Michigan. Some of these are Canadian citizens, although they live in the U. S. The others have skills which warranted permission for employment in Canada. (This is granted by the Canada Manpower Center of the Department of Manpower and Immigration. Permission is based on the unavailability of similar skills among Canadian citizens anywhere in the country who are registered as unemployed.)

A rise or fall in the employment of the thousands who work at the steel plant in Sault Ste. Marie, Ontario, therefore, would have very little effect on the economy of Chippewa County in Michigan.

Major Michigan Receivers Located Outside the Impact Area

Four companies located in Michigan but outside of the study area received a number of railroad cars through the Mackinac Gateway in 1969. Since their locations have been excluded from the impact area, the reasons for the exclusions are set forth.

The first is Scott Paper Company at Detroit. In 1969 about 40 cars of pulpwood were shipped through the Mackinac Gateway to this company. The company has since ceased processing pulp at this location, and is therefore excluded from consideration.

The second was the Great Lakes Steel Company at Detroit. This company received thousands of cars of coke and a few cars of ingots from Algoma Steel Corporation through the Mackinac Gateway. These were emergency shipments, and now have ceased. During the emergency period, according to Algoma's traffic manager, shipments of coke over Canadian Railroads through the Windsor Gateway were more than double those that were shipped through the Mackinac Gateway. During the same period, 70,000 tons of ingots were shipped, but only 1,400 tons went over the Straits of Mackinac, principally because of a shortage of equipment. The remainder went through Windsor. Detroit, as an impact area, is therefore excluded, not only because the shipments to Great Lakes Steel have ceased, but also because of the availability of the Windsor Gateway as an alternative. In addition, the availability of other sources of steel beside Algoma eliminates even a fractional dependency of the Detroit economy on the ferry service at the Mackinac Gateway.

A third company received about 400 cars of pulpwood over the ferry in 1969. This was the Packaging Company of America at Filer City, near Manistee, Michigan, in Manistee County. In interviews with the company's woodlands manager and also with its regional superintendent, it was confirmed that the company only reaches out for

wood from the upper peninsula when there is a surge in demand which cannot be taken care of by their regular wood suppliers in the lower peninsula. Such emergency requirements occurred in the season of 1965-6 and again in 1968-9. The company is not purchasing wood from the upper peninsula at present.

Both men said that the presence of rail ferry service would help, but that in case of its abandonment, the company would still buy wood from the upper peninsula to handle demand surges and have it delivered by truck. The economic length of a truck haul is expanding continuously, they said, and wood can now be delivered to their plant from the upper peninsula at an acceptable freight cost. Economic truck range used to be 75 miles, then 150 miles, and now, depending on the size of the equipment, up to 250 miles. (The Filer City plant is 162 miles from the Mackinac Bridge.)

The reason for the expansion in the length of economic truck haul is larger equipment. According to the company's records, 15 years ago the average truck carried 6 cords, and 10 years ago the average was 8 cords. At present it is running between 12 and 15 cords per truck. These are average receipts. Some trucks are smaller, but many units now will handle 20 cords, and 2 units that they know of carry 26 cords.

For these reasons, the exclusion of Manistee County from the study area is an acceptable conclusion.

A fourth company receiving shipments through the Mackinac Gateway was the Abitibi Corporation at Alpena, Michigan, which is

located on the Lake Huron shore in Alpena County, a county which is excluded from the study area. In 1969, 200 cars of hardboard were received through the gateway originating from a company-owned plant at Sturgeon Falls, Ontario.

These shipments were reported to be substrate board to be further processed at the Alpena plant. Another source of this same board is from the Superwood Company in Minnesota. Substrate board is also produced at a recently built Abitibi plant in North Carolina. No shipments of this board have been received over the gateway since 1969 because of the absence of demand.

To summarize the definition of the area of potential impact, the area of concern is the eastern half of the upper peninsula, and the north central counties of the lower peninsula. The major shippers and receivers along the trackage in this area may have their operations affected by the possible closing of the ferry. In addition, the future economic development of these counties may possibly depend upon the ability of rail service. This service may eventually be lost if the ferry service should be abandoned.

In the following chapters we will proceed to examine the economic impact, present or future, that is likely to occur should the ferry service abandonment come about. We will discuss the results of our survey of shippers and receivers in the study area, and the conclusions which can be drawn from these. Further, we will take up the discussions we had in interviews with community leaders such as bankers, planning and development organizations, local government

officials and others. Finally, we will discuss the economic development implications for the future should the ferry service be abandoned. Much of this latter discussion will center around the question of the domino effect...the possible later abandonments of related trackage.

III. INTERVIEWS WITH MAJOR SHIPPERS AND RECEIVERS
IN THE IMPACT AREA USING THE MACKINAC GATEWAY

Shipper information was obtained from several sources. One source was an analysis of 1969 traffic through the Mackinac Gateway prepared by the Soo Line Railroad. This information was checked and brought up to date through interviews with banks and development organizations who suggested other manufacturers in the area who might be using the Gateway now but who were not using it in 1969. The suggested manufacturers were also interviewed.

Major shippers within the impact area were:

Company	Location	Commodity	Number of cars 1969
Penn-Dixie Cement Co.	Petoskey	Cement	109
Royal Oak Co.	Marquette	Charcoal	89
Sawyer Stoll Co.	Newberry (and Moran)	Pulpwood	111
Edwin Graves	Seney	Pulpwood	68
Leslie Graves	Shingleton	Pulpwood	116
E. P. Furlong	Newberry	Pulpwood	49
Newberry Wood Products	Newberry	Cabinet Parts	22

Six of the seven major shippers within the impact area were in the eastern upper peninsula. One of these, Newberry Wood Products, manufactures knocked-down wooden kitchen cabinets. The wood is received from the west coast, processed at Newberry, and the cabinet parts are shipped on down to the Detroit area for assembly and installation.

Newberry Wood Products obtains a through rail rate from the west coast to Wayne, Michigan with in-transit drop-off privileges at the Newberry plant. About 80 cars a year are shipped. The company seeks to keep the number of rail cars on the road down to a minimum, because investment in inventory riding in freight cars carries a costly interest factor. But the service is slow no matter which routing is used...whether through the Mackinac Gateway or through one of the Lake Michigan Gateways. For this reason, the bills of lading are routed "best way", leaving the judgment up to the railroad.

Slow service sometimes threatens temporary shut-down of the Wayne plant if cabinet parts do not arrive on time. Because of this, the company maintains a large truck to rush emergency parts to the Wayne factory to keep production going. According to Mr. Pierre Court, the president, "the emergency has become routine".

Mr. Court does not feel that the closing of the ferry will worsen his rail shipping problems, but he is concerned that obtaining empty cars might become more difficult because some of these now come via the ferry.

Of the other five major shippers in 1969, one, Royal Oak Co. at Marquette has permanently closed its plant. The other four are all shippers of pulpwood. None of these shippers are now using the ferry service at the Straits of Mackinac according to recent interviews with them.

Sawyer Stoll Timber Co. is shipping primarily to Wisconsin paper mills by truck and rail, (about 10,000 rail cars a year) and

expects to use the Mackinac Gateway to fill orders from Packaging Company of America at Filer City, Michigan in the lower peninsula. Sawyer Stoll receives orders from Packaging Company only when there is a surge in demand so that the customer can afford the long-haul cost of pulpwood from that distance.

Similar conditions apply to E. P. Furlong Company. In 1969 this company shipped thousands of cords of pulpwood to Scott Paper Company at Detroit and to a Scott subsidiary, the S. D. Warren Paper Company at Muskegon. Since that time, the Scott plant at Detroit has ceased purchasing roundwoods and only processes pulp received from their other mills. Nor is Furlong presently shipping to S. D. Warren because their contract is also a demand-surge contract. It hopes to begin shipping later to this customer, and also to Abitibi at Alpena. Peak years to southern Michigan accounted for 1,000 to 1,200 cars a year for Furlong, but only a small percentage went through the Mackinac Gateway. Bills of Lading did not specify routing. Present production of Furlong is to Wisconsin and to Manistique Pulp and Paper Company. 60% of the Manistique shipments are by truck, the Wisconsin shipments are by rail.

The Graves brothers, although not in partnership, have similar shipping patterns from Shingleton and Seney, with shipments to close-in mills in Wisconsin and the upper peninsula delivered by truck with some rail. Nothing is shipped over the ferry by either Leslie or Edwin Graves at present.

As can be seen, all of the major shippers in the upper peninsula are pulpwood producers. The shipping patterns of this industry are changing drastically, and should be discussed here.

The most important development for the pulpwood logging industry in the eastern upper peninsula is the expansion of the Mead Paper Company plant at Escanaba scheduled for this coming year. The present plant uses 45,000 cords of wood a year. According to testimony given by a company representative in support of better highways, the expanded plant will handle 450,000 cords of wood a year...ten times the present utilization. His testimony also indicated that anticipated production will require a loaded truck every 2 1/2 minutes, 8 hours a day, 5 1/2 days a week.

Although this new requirement will not use the total available supply, it will go a long way toward providing the pulpwood logger in the eastern upper peninsula with a more stable income. This area traditionally has been an overflow area for pulpwood demand. A certain amount of pulpwood has been regularly trucked to nearby paper mills, but the bulk of the demand, however, has been in erratic response to surges in demand which have occurred at mills further away in Wisconsin and lower Michigan. These surges occurred when the yard inventory at these mills became too low to be filled by their regular nearby sources, and the mills were then willing to temporarily reach out to greater distances such as the eastern upper peninsula to obtain the necessary pulpwood. This economic pattern was confirmed by each major shipper, by bankers in the area, and by such knowledgeable

people as C. A. Samuelson, woods manager for the Kimberly-Clark Corporation.

It is evident that the emergence of a steady demand from the expanded Mead Paper Company plant will exert a stabilizing influence on this formerly marginal area, and will provide opportunities for both truck and rail shipments entirely without need for the Mackinac Straits rail ferry service. Escanaba is only 114 miles from Newberry, 73 miles from Seney and 88 miles from Shingelton.

Loggers in the eastern part of the upper peninsula, including the Sault Ste. Marie area, Moran and the eastern end of Mackinac County, now truck their wood over the Mackinac Bridge to U. S. Plywood Co. at Gaylord, and to the Abitibi Corporation at Alpena. It is 74 miles from Moran to Gaylord, and 111 miles from Moran to Alpena. Sault Ste. Marie is 116 miles from Gaylord; and the truck run to Alpena is 153 miles.

The Mead plant will be within economic truckwood distance of the eastern part of Mackinac County as well. Escanaba is about 190 miles from the most easterly point. With truck equipment of sufficient capacity, therefore, the loggers in the eastern end of the upper peninsula will be able to economically serve wood buyers either over the bridge or west to Escanaba.

In addition to the Mead Paper expansion, other developments have occurred which, reinforcing each other, are rapidly changing the transportation mode of pulpwood from rail to truck, particularly across the Straits of Mackinac.

One such development, a very important one, was the reduction of toll rates at the Mackinac Bridge beginning January 1, 1969. The reduction averaged 60%. This had a major economic impact. Truck traffic increased 38% in two years. In addition, there was another 13% increase in the first five months of 1971 over the same period of 1970.

Mackinac Bridge Authority

Truck Traffic, 1968 - 1970

<u>Year</u>	<u>Truck, Single Units</u>	<u>Truck-Trailer Combination</u>				<u>Total than 5 axles</u>	<u>Total Combi- nations</u>	<u>Total Trucks</u>
		<u>3 axles</u>	<u>4 axles</u>	<u>5 axles</u>	<u>more</u>			
1968	121,430	7,683	10,230	24,670	8,163	50,746	172,176	
1969*	155,835	6,451	11,218	33,889	9,157	60,715	216,550	
1970	176,458	6,033	11,452	32,471	11,953	61,909	238,367	
<u>Truck Traffic, Jan.-May 1970, & Jan.-May 1971</u>								
5 months 1970	38,034	2,183	4,046	13,166	4,260	23,655	61,689	
5 months 1971	44,482	1,999	4,407	13,265	5,679	25,350	69,832	

* Toll rate reductions went into effect January 1, 1969

Source: Mackinac Bridge Authority.

The overall increase of 38% for the first two years after the rate increase, and the 13% increase for the first part of 1971 are significant figures. But the most important trend shown is the increase in traffic of trailer combinations of 5 axles or more. These

are the giant rigs that are capable of carrying payloads of pulpwood or cement in quantities large enough to be economic. The rise, as can be seen, is spectacular.

Growth Rates, Truck Crossings at Mackinac Bridge

	<u>All Trucks</u>	<u>Truck-Trailer Combinations of more than 5 axles</u>
1969-1970	38%	46%
5 months 1971	13%	33%

Other elements seem to be reinforcing the shift from rail to truck for the hauling of pulpwood. One is the frequent shortage of gondola rail cars in the eastern upper peninsula. This type of car is required by other shippers of commodities of higher value and higher freight revenue during the same season that it is required for pulpwood shipping. Fertilizer and other agricultural products are examples.

Another was the April, 1971 increase in rail freight rates for pulpwood. Another is the control over delivery times which a truck provides. The Mackinac Bridge is there seven days a week, not three. In combination, all of these factors seem to be tipping the scales in favor of trucking pulpwood over the Mackinac Bridge whether or not ferry service is abandoned.

The Lower Peninsula

Only one major shipper located in the impact study area ships north through the Mackinac Gateway...the Penn-Dixie Cement Company. In 1969, 109 cars of cement were shipped to the upper peninsula by this route.

According to the plant official in charge of shipping, shipments over the ferry have been considerably reduced since 1969. Currently, only 1 to 2 cars a month are shipped by this route. Most shipments to the upper peninsula now go by truck. The reason for this, he said, was better control over service and lower trucking costs since the toll rates over the Mackinac Bridge have been reduced. With the loss of the ferry service, the same demand could be fully handled by truck.

Conclusions Drawn from Interviews with Shippers

Only two of the shippers in the study area that used the ferry service to any degree in 1969 are using it at all presently. One, the shipper of cement to the upper peninsula, has reduced car ferry shipments from 109 in 1969 to less than 20 in 1971. This shipper has switched the remaining volume to truck since lower bridge tolls make this mode economical. Should the ferry service be abandoned, this shipper will handle all of its upper peninsula demand by truck.

The second shipper, a maker of wood cabinet parts, is seeking better rail service and feels that this requirement is more important than the retention of ferry service.

All of the remaining major shippers in the study area are pulpwood contractors. None of them are using the ferry at the present time. All of them would like to have the service on a stand-by basis so that they can utilize the service to handle those surges in demand from the lower peninsula that occur every two or three years. But even for this spasmodic market requirement, changes in trucking equipment size and lower bridge tolls are making it economical to truck from their logging areas to the customers in lower Michigan. In the meantime, pulpwood income to the area will stabilize through the increased demand in the upper peninsula because of the expansion of the Mead Paper Company plant, which will have no need for rail ferry service across the Straits.

Employment in these industries should increase rather than diminish, and the closing of the ferry would not create unemployment with the major shippers. The industry's occasional opportunity for additional pulpwood income from spasmodic demand from lower Michigan can now be satisfied by truck shipping. From the shipper point of view, we see no real economic impact on the area resulting from the closing of the ferry.

Interviews with Major Receivers in the Study Area.

Those companies within the study area receiving the largest shipments through the Mackinac Gateway during 1969 were the following:

Penn-Dixie Cement Co., at Marquette, Michigan

U. S. Plywood Co., at Gaylord, Michigan

Charmin Paper Co., at Cheboygan, Michigan.

In 1969, the Penn-Dixie Cement Company was listed as a receiver of 30 cars of cement at Marquette, Michigan. These were shipments for their own account from the Petoskey plant in lower Michigan, routed over the Mackinac Straits car ferry. These shipments were to a warehouse in Marquette on an in-transit basis, for later re-shipment to upper peninsula customers. This system has now been largely replaced by truck shipments of cement direct to upper peninsula customers over the Mackinac Bridge. Only an occasional car is sent to Marquette on an in-transit warehousing arrangement.

The 1969 sample also showed 60 cars of pulpwood were received over the ferry by U. S. Plywood at Gaylord, Michigan. The plant manager of this company testified that at present the Gaylord plant has neither inbound nor outbound shipments over the ferry. (Page 60, FD 26303, January 25, 1971). We will discuss this company again in the chapters dealing with the "domino" effect...the possible further petitions to abandon related trackage...but in this section, where we are discussing major receivers of freight through the Mackinac Gateway, the company is no longer a receiver.

The third major receiver of goods shipped through the Mackinac Gateway during 1969 was Charmin Paper Company at Cheboygan, Michigan. In that year, the company received 65 cars of wood pulp from Fort Will, Ontario. In 1970, according to the plant manager, receipts were down to 20 cars, and none have been received in 1971. All wood pulp is now coming from western sources. This was confirmed in an interview with the company's traffic analyst at Cincinnati, Ohio.

He said that the company's position is that the loss of the ferry would have no direct effect on their operations.

Again, this company will be an important part of our discussions further on in this study when we take up the question of shippers over related trackage.

Conclusions Drawn from Interviews with Major Receivers

The companies in the study area who were major receivers of shipments made over the ferry in 1969 are no longer receiving goods by this route. Our interviews with community leaders, bankers and planning organizations in the study area did not reveal additional receivers other than those shown in the 1969 survey. In addition, our interviews with other manufacturers in the area large enough to be significant potential receivers disclosed none who were receiving goods through the Mackinac Gateway. As a result, we can find no economic impact in terms of difficulty for receivers which would result from the loss of the ferry service.

IV. INTERVIEWS WITH SHIPPERS AND RECEIVERS
USING TRACKAGE RELATED TO THE MACKINAC FERRY

Part of our assignment is based on the assumption that the railroad companies might undertake subsequent petitions to abandon segments of service along trackage now connecting with the ferry across the Straits of Mackinac. In order to evaluate the economic impact which would immediately derive from abandonment of related trackage, we interviewed the major shippers and receivers that would be affected.

The Upper Peninsula

We are not treating the east-west lines of the Soo Line Railroad as related trackage. We are, however, so regarding the line from St. Ignace to Trout Lake.

All of the major shippers using this segment of trackage were actually sending their goods through the Mackinac Gateway. We could find no shippers using the Trout Lake-St. Ignace line to ship north.

The only receiver we could find using this line but not using the ferry was the Petgas Company. This company has a small terminal at St. Ignace which transfers propane gas from rail tank cars to trucks, and then trucks the gas across the bridge.

Employment at the terminal is less than four. If the Trout Lake line were abandoned, the company would have to move its terminal from St. Ignace to Trout Lake, and truck the gas 28 miles to St. Ignace. This would impose a local hardship on the company, but it is

a large subsidiary of Cities Service Oil Company, and well able to absorb this limited extra expense. At present, it has further mileage for other distribution points in its system in northern Michigan.

The Lower Peninsula

Two sections of the northern lower peninsula will be affected by abandonment of related trackage. Each presents different problems. One is the area serviced by the old New York Central Line, and the other is the area serviced by the old Pennsylvania Railroad Line. The interviews with the manufacturers in each of these areas will be classified accordingly.

The Area Serviced by the Old New York Central Line

This line runs southward from Mackinaw City through Cheboygan, Gaylord, Grayling, Roscommon, West Branch, Standish, and in to Bay City.

The question of economic impact from abandonment of this line could be serious, largely because of the dependency on rail of employers who are of critical importance to the area. One is Charmin Paper Products at Cheboygan, Michigan.

Charmin employs an estimated 600 people, and ships about 60% over the Detroit and Mackinac Railroad and about 20% over the Penn Central. The remainder is shipped by truck.

Undoubtedly, the Detroit and Mackinac Railroad would be able to handle all of Charmin's rail shipments. However, since it is a small railroad, even though now profitable, this may be too risky

for the support of such large employment in this county. If the Penn-Central service should be abandoned, and, if the Detroit and Mackinac later lost a significant part of its traffic further down its line and had to be abandoned, then the Cheboygan area would very likely lose this most important industry. Eventually, its economy would be seriously damaged.

At Gaylord, another important shipper uses the Penn-Central Line. This is the U. S. Plywood-Champion Papers Company. Loss of service at Gaylord would make it uncertain that this branch of the company would find it economic to remain. Loss of its employment, (about 250) would reverse the recent growth that this small city has enjoyed.

The Area Serviced by the Old Pennsylvania Railroad Line

This area of the northern lower peninsula is served by the Penn-Central by the line which runs southward from Mackinaw City through Pellston, Petoskey, Boyne Falls, Mancelona, Kalkaska, Walton Junction, Cadillac, Reed City, Big Rapids, Sand Lake and on in to Grand Rapids. A branch line also runs north from Walton Junction to Traverse City.

Some of these cities are served by other railroads. Petoskey, Traverse City and Reed City are served by the Chesapeake and Ohio Railroad. Cadillac is served by the Ann Arbor Railroad.

Three receivers were identified that bring in a number of carloads a year. One is the McRae Lumber Company at Mackinaw City.

This company does not directly provide large employment in its area, but is an aggressive merchandiser of building products. According to Mr. Stanley McRae, loss of related trackage would raise his receiving costs of brick and roofing materials. The result might be an increase of building costs in the area of from 3% to 5%.

The other receiver is a large foundry at Cadillac. This company, the Cadillac Malleable Iron Company, receives carloads of coal, coke, clay, steel scrap and sand. Part of this is received over the Ann Arbor Railroad, and part from the Penn-Central Railroad.

The third receiver was the Root Archery Company at Big Rapids. This sporting goods manufacturer receives its lumber by rail over the Penn-Central Road. All of this company's shipments, however go out by truck.

One large manufacturer ships scrap steel over this related trackage. This is the Mt. Clemens Metal Products Division of Gulf and Western Co., at Mancelona, Michigan. Shipments are about 100 cars a year. This segment of related trackage also has shippers of agricultural products such as wheat, fruit, potatoes and Christmas trees. Two of the counties, Antrim and Mecosta, each produce \$1.5 million in crops a year. Osceola and Mecosta each have 47% of the county's land in farms, in contrast to an average of 37% for the State.

One other shipper uses the Penn-Central Line for about part of its outgoing shipments. This is a furniture manufacturer at Cadillac, named St. John's Inc. The company receives raw material by

truck, ships 80% of its finished goods by truck, and ships 10% by the Ann Arbor Railroad and 10% by the Penn-Central.

Conclusions Drawn from Interviews with Shippers and Receivers

Using Rail Trackage Related to the Mackinac Ferry

If related trackage were abandoned subsequent to an abandonment of the ferry, the following economic impacts would occur:

<u>Segment of Service</u>	<u>Degree of Economic Impact</u>
St. Ignace to Trout Lake	None.
Mackinaw City to Cheboygan	None.
Cheboygan to Gaylord	A threat of impact if the D & M Railroad should later abandon.
Gaylord to Bay City	Serious at Gaylord. Nothing serious south of Gaylord.
Mackinaw City to Mancelona	An estimated rise in construction costs of 3% to 5% in the Mackinaw City area.
Mancelona to Grand Lake	Moderate to serious impact on agriculture and scattered industry.
Walton Junction to Traverse City	None.

V. INTERVIEWS WITH PLANNING AND DEVELOPMENT OFFICIALS
AND OTHER COMMUNITY LEADERS IN THE IMPACT STUDY AREA.

During the course of the field work for this study, we interviewed 20 persons who were either technical experts, development and planning officials, or community leaders having general knowledge of the economics of their area.

None of these officials believed that abandonment of the ferry would have an immediate economic impact. Instead, the concern most consistently expressed was that future industrial development would be hampered when and if related segments of rail service were abandoned.

Their concern is understandable, but none of these officials have been directly involved in either manufacturing or shipping. The realities of industrial development give little support to their positions. Nevertheless, this chapter reports in detail on these interviews, and later chapters will undertake a more specific examination of the dynamics of industrial development potentials for the impact study area.

Technical Experts

Mr. Peter Grieves, Executive Director of Timber, Inc., at Newberry, Michigan, was very helpful in contributing his knowledge of the woods industry. His organization is funded by the Upper Great Lakes Regional Commission to provide assistance to the forest products industry throughout the upper great lakes area.

Mr. Grieves discussed the changing patterns of pulpwood transportation in the same terms as the major shippers: that truck hauling is becoming more economic for greater distances because of (1) the increase in rail freight rates, (2) the use of larger trucks and of more efficient truck loading equipment, and (3) the reduction of toll rates at Mackinac Bridge. These changes have permitted three contract loggers to ship to the Abitibi plant at Alpena from as far north as Seney and beyond. This is roughly a 250 mile distance. U. S. Plywood at Gaylord has regular contractors who truck from the eastern upper peninsula and also buys on the open market.

In discussing the future pulpwood market in the eastern upper peninsula, Mr. Grieves agreed with the shippers that Mead Paper Company's expansion will help to stabilize the demand, but that more wood will still be available. This extra wood will be available for trucking to the south to fill occasional surges in demand from this area, but that eventually it will be used in the upper peninsula either to supply a new kraft paper mill if pollution abatement procedures can be improved, or a particle board mill where environmental problems are less severe.

A second expert interviewed was Mr. Ray Pfeifer of the Department of Natural Resources, Forestry Division, at Lansing, Michigan. Mr. Pfeifer indicated that trucking of pulpwood is now done regularly from the eastern upper peninsula to the lower peninsula mills, particularly from the extreme eastern end of Mackinac County. Cedar poles and fencing items, grown along the

north shore of Lake Michigan are trucked to southern Michigan and beyond to markets in the eastern part of the United States.

The third expert was Mr. Lawrence Rubin, executive director, Mackinac Bridge Authority. Mr. Rubin gave us the traffic statistics used in earlier tables. He also stated that the weight capacity of the bridge was adequate for the larger trucks. The basic standard for weight capacity is that anything that can be handled by the highways can be handled by the bridge.

The Planning and Development Organizations in the Eastern Upper Peninsula

Mr. James Bourque is the executive director of the Eastern Upper Peninsula Economic Development District. This district, funded by the local governments, the State Government, and the Federal Government, covers the counties of Chippewa, Mackinac and Luce.

Mr. Bourque has been active in industrial prospecting for the counties in the district. He recognized the need for rail service for the natural resource, heavy-bulk industries such as pulpwood, but he said that the new industry being sought is primarily truck-oriented. This is because the industrial prospects which have shown any interest at all as a result of these promotions have been truck oriented industries. Present industrial prospects, and probably future ones, will not be looking to rail service. Prospects include industries in chemicals, auto parts and electronic components.

The overall Economic Development Plan for the District confirms Mr. Bourque's judgment. From 1930 to 1968, manufacturing

employment in the district declined by 87%. During the first two decades after 1930, most of the job loss was in wood-related employment...a reflection of the national trends as shingles, wash tubs, staves and a host of other wood products became relatively obsolete. But the major disasters of loss in industrial employment came in the 1950's and the 1960's when a pig iron factory was closed at Newberry, a chemical industry was closed in the same city, and at Sault Ste. Marie, lumber, carbides, woolen goods, leather and boat construction firms all were terminated. These firms represented about 2,300 manufacturing employees.

The second professional developer interviewed at Sault Ste. Marie was Mr. Robert MacDonald, executive director of the Sault Area Industrial Council. Mr. MacDonald indicated that his organization's greatest fear is a later domino effect which would deny rail access to the Sault entirely, even in a westerly direction over the Soo Line which would give access to the south. Canadian railroads now give the city access to the east. In itself, the loss of ferry service would have little impact, he said.

At Marquette, Michigan, we interviewed Mr. William Wilson, executive director of Operation Action, U. P. Mr. Wilson said that since the closing of the Royal Oak Company, (which made shipments of charcoal and of acetic acid), there is no present use of the ferry service from the Marquette area. He did point out, however, that the impact was likely to be in future development. Pending prospects for industry, especially in the eastern end of the upper

peninsula might well be lost if the ferry service were to be discontinued.

Another Economic Development District, funded by the Federal Government, the State Government and local governments, is located at Escanaba. The executive director of this organization, the Central Upper Peninsula Planning and Development District, is Mr. George W. Rusch. The counties covered are Marquette, Alger, Schoolcraft, Delta, Dickinson and Menominee.

Mr. Rusch pointed out that anything west of Munising or Manistique would have a shorter hauling distance to the Lake Michigan Gateways rather than to the Mackinac Gateway. He is an excellent geographer, and was very helpful in making us acquainted with the geological and topographical characteristics of the area, including essential data on water tables and water resources.

The manufacturing employment patterns in this district differ substantially from those of the eastern district. The wood products industry has of course declined as it did in the eastern district as products such as poles, fenceposts barrels, buckets and handles all were replaced by metal products. Employment in wood producing industries declined from 4,310 persons in 1930 to 2,500 in 1968.

But other manufacturing has gained. Pulp and Paper employment increased from 833 in 1930 to 1,875 in 1968. Metals, machinery and other manufacturing declined in employment from 1930 to 1940, but increased by 1,000 persons from 1940 to 1968. Although this is a very small growth of 25% over 28 years, it has served to maintain

a better economic vitality than that of the eastern district.

Employment in the mining industries in the central district has followed a similar pattern. It had a long period of decline from 1930 to 1964 of 1,100 people. Most of this loss was replaced between 1964 and 1968.

There is no shipping of any consequence over the ferry at the Mackinac Gateway from this district despite the increases of employment in mining and machinery manufacturing. The shipping policies of the companies involved will be discussed later in this report when the question of economic development for the future is taken up.

Other professional developers interviewed in the eastern upper peninsula were Lee Meyers, Executive Director of the Upper Peninsula Commission for Area Progress, and Mr. John Williams, a research specialist at the same organization.

Mr. Williams, whose previous work was as a labor market analyst, stressed the seasonal aspects of unemployment in the eastern upper peninsula. During the winter, the rate for most counties goes to 25% and even 30%. One exception is Luce County, where the Newberry State Hospital serves to level out the seasonal variations. The reason for this problem is that lake shipping closes during the winter, including employment at the Sault Ste. Marie locks. Employment in the limestone quarries also ceases, and tourist service employment is down.

Mr. Meyers stressed the problems of all forms of transportation as inhibiting development of the area. In the matter of the need for better highways, he cited the problem which will occur with truck traffic when the Mead Paper Company plant is in full production following its expansion. In the matter of ferry service, it was his opinion that all of the rail service possible was necessary to the development of the eastern upper peninsula.

Community Leaders in the Eastern Upper Peninsula

The Mayor of St. Ignace, Mr. Ronald Walker, discussed the economics of his area with us, and the potential impact of the loss of ferry service. Mayor Walker indicated that the city now has a new industrial park with a rail spur, and that they look to the ferry service as well as the line from Trout Lake to provide rail service to the industrial park.

Mr. Walker was also concerned about the psychological barrier that the Straits of Mackinac creates, giving the people of the upper peninsula a sense of remoteness. Cessation of ferry service would contribute to this problem. He did point out, however, that the younger people, using the bridge for inter-high school athletic events, do not reflect this sense of remoteness.

The mayor is also concerned about the air pollution being caused by the ferry. He wants the service retained, but also wants steps taken to clean up the pollution problem.

Another St. Ignace leader interviewed was Mr. Oliver Boynton, who is Postmaster at that City, a member of the planning commission, and a member of the board of directors of the St. Ignace Chamber of Commerce. Mr. Boynton concurred with Mayor Walker's concern about the development of the city's industrial park should rail service be discontinued through the loss of the ferry.

The Chairman of UPCAP, who is a county commissioner of Mackinac County, Mr. Harold Dettman, was interviewed. Mr. Dettman was concerned about the possible loss of the ferry on several points. He indicated that the highway system of the upper peninsula was in poor physical shape, and that the added tonnage transferred to the highways from the loss of the ferry service would put additional strain on the highways and increase local government's maintenance expense. He is also concerned about the loss of industrial development potential which will occur with the abandonment of the ferry.

Mr. James Mills, executive vice-president of the Newberry State Bank at Newberry was very helpful in describing the economics of pulpwood logging in the Newberry area. He cleared up the issue of weight restrictions on roads for pulpwood hauling. There are no limits inhibiting movement on the state or federal highways, such as I-75, U. S. 2 or M-28. The problem is a seasonal one, where weight restrictions are posted on secondary roads during the frost break-up in the spring. The restrictions are in force for 5 or 6 weeks.

Mr. Richard Burnett, President of Edison-Sault Company, is also president of the Chippewa County Industrial Development

Corporation. Mr. Burnett could find little current interest among most community and business leaders in resisting the closing of the ferry. He feels that industrial development is likely to come about in truck-oriented industries, and that north-south rail service, where needed, can be achieved through the Lake Michigan and Chicago Gateways.

Planning and Development Organizations in the Lower Peninsula

The executive director of the Northeast Michigan Regional Planning and Development Commission is Mr. James Williams, at Rogers City, Michigan. The counties covered by his Commission are Cheboygan, Presque Isle, Otsego, Montmorency, Alpena, Oscoda and Alcona. Two of these counties, Cheboygan and Otsego, are in the impact study area.

Mr. Williams said that the loss of the ferry would not have direct impact on the two counties, (Cheboygan and Otsego), but that subsequent cutbacks could be a serious deterrent to new development. He particularly cited the new industrial park at Gaylord, as well as the industrial park at Cheboygan. Development is progressing in each of these, and would be harmed by loss of rail service.

We discussed the problem with Mr. Richard Beagle, Economic Planner for the Northwest Michigan Economic Development District. Mr. Beagle made a statement at the Interstate Commerce Commission hearings at Cheboygan, Michigan on January 25, 1971, representing the Northwest Michigan Economic Development District, the County Commissioners of Grand Traverse County, and for the Northeast Michigan Economic Development District.

He made four observations. One...that economic development depends on adequate rail service, and further cuts would seriously hamper the economic development efforts of his commission. Two...that the cutting of the link represented by the ferry service would weaken rail service in the northern part of the lower peninsula. Three... that the ferry service and dock facilities would provide an invaluable asset in case of the loss of the Mackinac Bridge through natural disaster or enemy action. Four...a recommendation that no further reductions in rail service be permitted until the Michigan Department of Commerce has made a full study of such a reduction on the economy of the State.

Community Leaders in the Lower Peninsula

Interviews were conducted with two bankers located in cities in the impact study area, a county commissioner, and the Chairman of the Committee for Retention of Rail and Ferry Service.

Mr. Lyle McKinley, President of the Citizens National Bank of Cheboygan, Michigan, has been a member of the Regional Economic Development Advisory Task Force of the Upper Great Lakes Regional Commission since July 1967. He stated that the future of Cheboygan depends upon rail service. Most manufacturers in the area, he said, use either truck or the Detroit and Mackinac Railroad, (except Charmin Paper's shipments over the Penn-Central), but that a new industrial prospect would look at rail service against that of other communities competing for the location decision.

Mr. Harold A. Elgas, President of the Gaylord State Bank at Gaylord, is concerned with later abandonments of service on lines related to the ferry link. In addition, he feels that a free interchange of pulpwood shipping between the upper and lower peninsulas via the ferry will help to strengthen the wood products industries that have been growing since 1960.

Mr. Donald Walsh is a member of the Otsego County Board of Commissioners. His concern is with the possible loss of Otsego County's largest employer, the U. S. Plywood-Champion Papers Company, if rail service were to be abandoned south of Gaylord. He also pointed out that there is a proposal before the Economic Development Administration for a grant to develop an industrial park at Gaylord, and that EDA requires a rail siding as one of the specifications of the park. Abandonment of rail service would make it impossible to fulfill this requirement.

Another community leader we interviewed was Mr. Stanley McRae, Chairman of the Committee for Retention of Rail and Ferry Service. Mr. McRae was concerned about the loss of tax revenues to State and Local Governments should the ferry and related trackage be abandoned. He also believed that the problems of pressures in the major cities would be relieved by dispersal of industry to the smaller towns of the nation, and that retention of rail service was necessary to implement such a policy. Without rail service the industrial development necessary for the growth of jobs in the rural areas could not take place.

Conclusions from Interviews with Community Leaders and

Planning Officials

Much helpful information was gathered, particularly from discussions with the technical experts. Each person was also able to communicate a good general picture of the nature of the local economy of his area.

However, information about the relationship of rail service to future industrial development was, with one or two exceptions, more emotional than factual. There was little evidence that there was a thorough understanding of rail requirements for manufacturing.

VI. CURRENT PROSPECTS FOR FUTURE GROWTH AND THE EFFECT
THAT ABANDONMENT OF THE FERRY AND RELATED TRACKAGE
WOULD HAVE.

The entire impact study area can be expected to grow as a result of expansion of tourism, education, and medical and financial services. None of these, however, will be directly related to freight transportation. On the other hand, future industrial development depends heavily on efficient transportation. Attraction of new industry in the impact study area will therefore be the focus in this chapter. It addresses itself to the question of whether or not industrial development will be hampered if the ferry is abandoned, and also considers whether or not industrial development will be further retarded if related trackage is abandoned.

During our interviews with community leaders, we found an almost universal assumption that "rail service is essential to future industrial development". This attitude often prevails in areas where resource based industries did use rail, and to a lesser extent still do. But in the impact study area, such an attitude ignores the many significant industries which use truck exclusively.

As a matter of fact, it would be very difficult for the area to attract rail-using industries. Such industries are confined to a very few commodities, generally employ 500 or more, and require consistent availability of rail cars. The impact study area cannot respond to any of these requirements. Its future industrial development therefore lies in other directions.

Kind of Commodity

There is often a misunderstanding about the kind of commodity transported by rail. A large proportion is not of finished manufactured goods, but rather, of heavy, low value, basic materials.

Rail Car Loadings, Week of May 29, 1971
(From U. S. Department of Commerce)

<u>Commodity</u>	<u>Number of Cars</u>
Grain	22,390
Other Farm Products	11,766
Metallic Ores	53,735
Coal	109,858
Crushed Stone, Gravel and Sand	32,339
Other Minerals	10,829
Grain Mill Products	19,407
Food and Products	26,232
Forest Products	24,533
Lumber and Wood Products Except Furniture	16,824
Pulp and Paper	24,548
Chemicals	27,733
Petroleum Products	9,840
Stone, Clay and Glass	22,056
Coke	9,614
Metals & Products	31,227
Motor Vehicles and Equipment	25,775
Waste and Scrap	16,680
Forwarder and Shipper Association Traffic	6,243
All other Carloads	68,957
LCL Traffic	595
Total	<u>571,181</u>

On a commodity basis, as can be seen, very little tonnage of finished manufactured goods goes by rail. According to the latest census of transportation, (1967), the following illustrations help to illustrate the point.

<u>Commodity</u>	<u>Percent Shipped by Rail</u>
Apparel	10.2%
Molded Plastics	4.6%
Leather and Products	3.8%
Glass Containers	8.7%
Clay Pipe	1.8%
Concrete Products	2.8%
Iron and Steel Castings	28.3%
Nonferrous Castings	10.7%
Hand Tools	7.1%
Sheet Metal Products	11.4%
Machine Tools	8.2%
Printing Machinery	1.1%
Switchgear	4.8%
Electric Housewares	5.7%
Measuring Instruments	4.2%

Size of Plant

Over the past 15 years, manufacturers have become more aware of the cost of carrying large inventories in terms of interest costs and warehousing. Those with small production capacity therefore

prefer to receive smaller truck shipments of their raw materials at more frequent intervals in order to keep inventories lower. In addition, the volume of production in a small plant is not sufficiently large to require outbound shipments by rail. The customers of the smaller plant do not usually purchase in rail car lots. For these reasons, receipts and shipments by rail usually occur only in the much larger plant. In the previous table, for example, various commodities showed some small percentage of shipment by rail, but this did not mean that all apparel plants, for example, shipped 10.2% of their product by rail. Instead, the smaller plants shipped little if any, and the large plants used rail to some degree.

To illustrate, the following statistics are shown on rail shipments by plant size by commodity, taken from the Census of Transportation for 1967.

<u>Commodity Group</u>	<u>Percent of Shipments by Rail</u>	
	<u>Plants employing 20 to 99</u>	<u>Plants employing 500 or more</u>
Apparel	1.0%	19.0%
Paper & Products	19.5%	75.0%
Rubber and Plastics	1.0%	35.8%
Fabricated Metal Products	.4%	48.5%
Communications Products	1.0%	26.8%
Electrical Products	1.8%	40.1%
Instruments	.8%	17.3%

None of the cities in the impact study area can provide a labor force large enough to staff a large plant making the kind of commodity that is shipped by rail. The number of unemployed, whether 300 or 500 or more, is not a sufficient supply because of the variety of skills which may be required. For 770 unemployed, for example, the occupational groups might be typically distributed in the following way:

<u>Occupational Group</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Professional and Technical	40	10	50
Clerical	50	90	140
Sales	30	30	60
Services	40	50	90
Processing	20	30	50
Machine Trades	24	6	30
Bench Work	12	18	30
Structural Work	160	0	160
Other	120	40	160
Total Unemployed	<u>496</u>	<u>274</u>	<u>770</u>

Let's assume that a large manufacturer of automotive parts was considering locating a plant in the impact study area. The company plans to hire 500 people. (Many manufacturers of auto parts employ a good deal less, sometimes 20 or 30 people. But these ship by truck rather than by rail).

So the large manufacturer, planning to use rail and to hire 500 people, looks at the labor supply of 770 unemployed. Many of the unemployed shown above will not have skills of the type required. Structural workers, for example, may want to remain in construction work. The employer may not have a requirement for many female employees. When applied to specific needs, the unemployed available for the particular manufacturer shrinks substantially. Elimination of 160 structural

workers and 250 women, would remove a total of 410 employables from the 770 total, leaving 360 available for a 500 man plant.

It is not our argument that the cities and towns in the impact study area cannot provide a good labor force for a small plant. Sault Ste. Marie's Industrial Council, for example, ran a survey in 1969 to determine the number of tool and die workers and machinists available for work. In ten days it had 240 applications. At the hiring stage, part of this total would have undoubtedly melted away, but a good labor force is certainly available for the smaller plant. What we are saying, however, is that a labor force is not really available for a large plant...one large enough to require rail service.

We see only one exception to this situation when the economy of the impact area is considered. There probably is room for a small particle board mill in the central upper peninsula, employing about 250, which might use rail for outbound shipments. If so, it is likely to be located so that rail service south through Wisconsin would be most economical.

Rail Car Availability

Those who propose that rail service always is necessary for industrial development rarely consider the problem of rail car availability. Yet there is a severe shortage of cars, and the areas where there is a great deal of rail traffic both in and out tend to get the most cars for their shippers. In such areas, the cars are earning revenue for the railroads both in and out of the area.

In contrast, the areas which are sparsely populated do not get enough cars into their areas from a natural flow of traffic. In order to provide service to the manufacturers in areas which are chronically short of cars, the railroad must bring them in empty, diverting them from other, more active routings.

There is no question of the shortage. The aggregate capacity of all rail cars in use by Class I Railroads in 1950 was 90 million tons. By 1968, this capacity had risen only 3 million tons to 93 million.* During the same 18 years, the Gross National Product, in constant dollars, had risen from \$355 billion in 1950 to \$708 billion in 1968. Rail Car Capacity rose only 3% in those years, while real GNP rose 99%.

Any manufacturer regularly shipping and receiving by rail is well aware of these facts, and certainly would consider the hazards of locating a large rail-using plant in a sparsely populated area. If the product is resource-based, such as paper or flakeboard, then the difficulties of obtaining rail cars must be faced. On the other hand, if the manufacturing plant can be located in places where car availability is not a problem, the latter location will likely be favored.

Area Industries Using Truck for Receipts and Shipments

In recent years, the principal industrial development has been in plants using truck. These plants have located in the cities of the area which have rail service, but the service is not used. The

* Source: U. S. Statistical Abstract, 1970

principal reason for this is the significant attraction which is offered the smaller plants by Interstate 75, the Mackinac Bridge, and U. S. 131. These highways parallel the rail lines of the impact study area, and with the Mackinac Bridge, are available for use 24 hours a day, seven days a week. The truck-using industries which we interviewed located in the cities served by related trackage and the ferry link are listed below.

Truck-Using Industries in Impact Study Area

<u>Product</u>	<u>Estimated Employment</u>	<u>Location</u>
Machinery	30	U.P.
"	50	" "
"	35	" "
Lumber	35	" "
"	40	" "
"	85	" "
Furniture	140	L.P.
Rubber	150	" "
Construction Equipment	150	" "
Air Conditioners	1000	" "
Electric Tools	250	" "
Store Fronts	320	" "
Machine Tools	150	" "
Shoes	150	" "
Shoes	960	" "
Lumber	88	" "
Lumber	45	" "
Pallets	60	" "
Tubing	45	" "
"	35	" "
Sporting Goods	750	" "
Window Channel	350	" "
Steel Tanks	20	" "
Stampings	60	" "

Typical Industrial Development Opportunities

In 1969, the Upper Great Lakes Regional Commission contracted with the Battelle Memorial Institute to select the industries best suited to the economics of the upper great lakes region. After the Battelle Report was received, the Commission contracted with another firm, Booz, Allen and Hamilton, to study the suitability of these selections for certain specified communities. One community selected was Sault Ste. Marie, Michigan.

The Battelle Report had selected 8 industries as both suitable and desirable for the upper great lakes region. The Booz Allen Report concluded that Sault Ste. Marie would be unable to attract 6 of the 8 because the location requirements of the 6 could not be met by this community. However, the study did say that 2 of the industries had location requirements which the Sault could fulfill.

The industries for Sault Ste. Marie which passed the screening of both reports were Office Machines Not Elsewhere Classified, and Automatic Merchandising Machines.

The first grouping, office machines not elsewhere classified, includes addressing machines, dictating machines, duplicating machines, check and mail handling equipment, and stapling machines. The fact that rail service is unimportant in this industry was not noted in the Booz Allen Report, but the 1967 Census of Transportation estimates that only 2.7% of all industry shipments in this classification went by rail.

Automatic Merchandising Machines was another selection. The Census of Transportation survey of shipments of this category estimates that only 3/10 of 1% went by rail in 1967.

The favorable thrust of Interstate 75, U. S. 2 and U. S. 41 together with lower toll costs at the Bridge has opened up industrial development opportunities for the upper peninsula to a greater extent than these two reports show.

Within the past ten years, as the Interstate Highway system has established its basic connecting links and regular highways have been improved, there has been an accelerating trend toward industrial locations away from the metropolitan areas. This new trend to the smaller towns is a reversal. Until 1958, the big cities were getting most of the new industry, either within the limits of the central city or in the suburbs within the metropolitan areas. However, a study by the Commission on Intergovernmental Relations showed that between 1958 and 1963 the smaller towns began to get the lion's share of the new industrial jobs. The rate of increase in industrial employment during this period amounted to 13.8% outside the metropolitan areas, and only 3.1% within. Studies for later periods are not available, but the increasing pressures of metropolitan problems such as pollution and crime suggest that the trend will be accelerated. This could not have happened without the new mobility and accessibility which the Interstate Highway system provides. This should be the direction of the upper peninsula's efforts, and an abandonment of the ferry will not inhibit its chances for industrial development.

The chances for more industrial development of small plants are even better for the towns in the lower peninsula portion of the impact study area. This is particularly true for those which are located within a one day round trip by truck from Detroit, Flint, Saginaw, Bay City, Lansing, Grand Rapids or Muskegon.

The counties in the impact study area have had a bleak history of 40 years of declining industry with the exception of Delta County, where the city of Escanaba has had some modest growth. In some counties, the loss has been 85% or more. This deterioration of the industrial base occurred while the growth of industry elsewhere in the United States was the highest in history. It also occurred during a time when full rail service was available to the area, including daily ferry service across the Straits of Mackinac.

The area has only begun to recover industrially as the highways and truck transportation have improved. While it may be necessary to try to hold on to some related trackage in order to save one or two important resource based industries in the lower peninsula, the abandonment of the ferry will not affect industrial development in the impact area. For the future, the area will be well served if its community leaders and its professional developers concentrate their efforts for industrial development in the direction of their best opportunity: continued improvement of highways and the solicitation of small plants oriented to truck transportation.

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APPENDIX ACOMPARABLE RAIL FERRY ABANDONMENT

The original proposal of the Economic Research Council which was made a part of its contract with the Michigan Department of Commerce included an item which proposed to find comparable abandonments and to report the results.

The research revealed that the ferry across the Straits of Mackinac, because of its short distance and dispersals over multiple lines, was relatively unique. The nearest comparable situation was the abandonment of the rail car ferry service which was provided by the Ann Arbor Railroad between Manistique, Michigan in the upper peninsula to Frankfort, Michigan in the lower peninsula.

On February 15, 1968, the Interstate Commerce Commission, by the action of Louis E. Bartoo, Hearing Examiner, ordered abandonment of this service. In a corollary hearing, abandonment of the Manistique and Lake Superior Railroad was ordered. This road ran north from Manistique to Shingleton, where it connected with the Soo Line Railroad which ran west into the city of Marquette.

One heavy shipper and receiver was the Royal Oak Company of Marquette, which ceased operations in June of 1969. The loss of the ferry and its related trackage was not given as the reason for closing. The reason was a drop in the price of one of its principal products, acetic acid. Other plants of the company, closer to markets, took up the volume.

The lumber and pulpwood companies in the Shingleton area which utilized this line and ferry to some extent have shifted their shipping patterns to other railroads. In the years of demand surges, when shipments of pulpwood were made to the lower peninsula, the Mackinac Ferry was used even more than the Manistique Ferry. Abandonment of the Manistique Ferry caused little hardship to these companies.

Among the protestants was a Manistique company, the Schoolcraft Dimension Lumber Company. According to the plant manager, the principal problem for this company was that the siding into the Schoolcraft plant property was a Lake Superior and Manistique Railroad spur. With the abandonment of the rail line, the spur was removed, and this company has had to truck its product to the Soo Line Railroad team track a short distance away...a more costly method of handling whenever rail service is used. The company has some receipts and some shipments by truck across the Mackinac Bridge, but all of its rail shipments go west or through Chicago. Abandonment of the Mackinac Ferry service would have no impact.

Another company which was a shipper over the Manistique Ferry was the Manistique Pulp and Paper Company. This is the city's largest employer, and is a wholly-owned subsidiary of Field Enterprises, which in turn owns the Chicago Sun-Times.

Part of the company's production comes from the recycling of used paper. This method amounts to about 50% of its production, while forest products provide the raw material for the other 50%. Using waste paper has more than an ecological benefit. It is a method of

obtaining a percentage of the rail cars needed by the company for outgoing shipments. Receipt of waste paper by rail makes a certain number of cars available for the return trip, and the railroad earns revenue on these shipments both in and out.

This company did not suffer the hardship which occurred to the Schoolcraft Dimension Lumber Company. The rail siding into the plant was a Soo Line Railroad spur, and the company was able to send all of its rail shipments down through Wisconsin. Some shipments are made to lower Michigan, but according to the plant manager, these are made by truck over the Mackinac Bridge.

On balance, the abandonment of this ferry service and related trackage appears to have had minimal economic impact. Higher costs were incurred by one company, but employment in each of the industries which used the ferry has not declined because of its abandonment.

APPENDIX BLIST OF PERSONS INTERVIEWED

<u>CITY</u>	<u>PERSON, TITLE AND COMPANY</u>
Sault Ste. Marie, Michigan	Mr. Richard Burnett, President, Edison-Sault Electric Company
" " " "	Mrs. Eldine Bergeron, Employment Specialist, Michigan Employment Security Office
" " " "	Mr. James Bourque, Executive Director, Eastern Upper Peninsula Economic Development District.
" " " "	Mr. W. J. Kallio, Plant Manager, Soo Hardwoods Inc.
" " " "	Mr. Robert MacDonald, Executive Director, Sault Ste. Marie Area Industrial Council.
" " " Ontario	Mr. T. P. Foley, Traffic Manager, Algoma Steel Corporation.
" " " "	Mr. James Pearce, Placement Officer, Algoma Steel Corporation.
Newberry, Michigan	Mr. E. P. Furlong, Jr., Vice President, E. P. Furlong Co. (Pulpwood Contractors and Shippers)
" "	Mr. James Mills, Executive Vice President Newberry State Bank.
" "	Mr. Donald Ahomen, Secretary, Treasurer, Superior Studs, Inc. (Manufacturers Dimension Furniture Stock)
" "	Mr. Leslie Graves, Pulpwood Contractor and Shipper
" "	Mrs. Edwin Graves, Pulpwood Contractor and Shipping Company.

Newberry, Michigan	Mr. Pierre Court, President, Newberry Wood Products Company.
" "	Mr. Charles Jerrick, Manager, Kimberly Clark Corporation Lumber Mill
" "	Mr. Peter Grieves, Executive Director, Timber, Inc. (An organization devoted to improved methods of harvesting and transportation of pulpwood)
" "	Mr. John Clark, Woods Manager for Sawyer Stoll Company for the Newberry Area.
Norway, Michigan	Mr. C. A. Samuelson, Manager, Lake States Operations, Forest Products Division, Kimberly Clark Corporation.
Munising, Michigan	Mr. Ray Schertz, Plant Manager, Paper Specialities Division, Kimberly Clark Corporation.
Ishpeming, Michigan	Mr. William Eagle, Traffic Manager, Cleveland Cliffs Iron Company
Marquette, Michigan	Mr. William Wilson, Executive Director, Operation Action, U. P.
" "	Mr. Elmer Carlson, Plant Manager, Lake Shore Inc. (Manufacturers of Conveyors and Cranes).
Escanaba, Michigan	Mr. Harold Vanleberg, Traffic Manager, Escanaba Paper Co. Division of Mead Paper Company.
" "	Mr. George Rusch, Executive Director, Central Upper Peninsula Planning and Development District.
" "	Mr. Irving Olsen, President Clairmont Transfer Co.
" "	Mr. Lee Myers, Executive Director, Upper Peninsula Committee for Area Progress.

Escanaba, Michigan	Mr. John Williams, Research Specialist, UPCAP
" "	Mr. John Hebert, President, Sawyer-Stoll Timber Company.
" "	Mr. Frank Sagpeck, Sr., President, Chatfield Machine and Foundry Co.
" "	Mr. Robert Froelich, Plant Manager, H. E. Vanderbeck Co. Inc. (Cedar Fencing)
" "	Mr. R. J. Burroughs, President, Northern Motor Rebuilders.
" "	Mr. Richard Freeman, Plant Manager, Harnischfeger Corporation (Cranes, Loaders).
" "	Mr. Bud Newcamp, Traffic Manager, Goodman Stamford Division of Universal Oil Company (Veneers and Plywood).
" "	Mr. Nicholas Thiry, Plant Manager, Gafner Automotive & Machine Co. (Loaders and Skids).
" "	Miss Shawn Westerberg, Secretary to the Manager, Birds-Eye Veneer Co.
" "	Mr. John Walbridge, President, American Timber Homes Co. (Prefabs).
Powers, Michigan	Miss Elizabeth Frisque, Secretary to the Plant Manager, Early American Fence Company (Cedar).
Manistique, Michigan	Mr. Frank Hoholick, Plant Manager, Manistique Pulp and Paper Company.
" "	Mr. John Lipsey, Plant Manager, Schoolcraft Dimension and Lumber Co.
L'Anse, Michigan	Mr. Robert Jacobs, Plant Traffic Manager, Celotex Corporation.
Saint Ignace, Michigan	Mr. Ronald Walker, Mayor of St. Ignace

Saint Ignace, Michigan	Mr. Lawrence Rubin, Executive Director, Mackinac Bridge Authority.
" " "	Mr. Harold Dettman, County Commissioner, Mackinac County, Michigan.
" " "	Mr. Oliver Boynton, Postmaster, St. Ignace.
" " "	Mr. Richard Hoolsema, Plant Manager, Petgas Company, St. Ignace Branch.
Mackinaw City, Michigan	Mr. Stanley McRae, President, McRae Lumber Company and Chairman, Committee for Retention of Rail and Ferry Service.
Cheboygan, Michigan	Mr. Lyle McKinley, President, First National Bank of Cheboygan.
" "	Mr. Robert Jonda, General Manager, Charmin Paper Company-Cheboygan Division.
Rogers City, Michigan	Mr. James Williams, Executive Director, Northeastern Michigan Economic Development District.
Alpena, Michigan	Mr. Lowell Thompson, Plant Traffic Manager, Abitibi Corporation.
" "	Mr. J. T. Schroed, Plant Personnel Manager, Abitibi Corporation.
Gaylord, Michigan	Mr. John Churchill, Manager, U. S. Plywood.
" "	Mr. Harold Elgas, Executive Vice President, State National Bank.
" "	Mr. Donald Walsh, County Commissioner, Otsego County, Michigan.
" "	Mr. Al McCorry, Traffic Manager, Standard Products Co.

Petoskey, Michigan	Mr. Alden Fleischman, in charge of shipping at Lamson Plant of Penn-Dixie Cement Company.
" "	Mr. William Blanchard, Traffic Manager, Petgas Co.
Traverse City, Michigan	Mr. Richard Beagle, Economic Planner, Northwestern Michigan Economic Industrial District
Cincinnati, Ohio	Mr. James Coates, Traffic Analyst, Charmin Paper Division, Proctor and Gamble Company.
Mancelona, Michigan	Mr. Alton Miller, Traffic Manager, Gulf and Western, Mt. Clemens Metal Products Division (Auto Stampings).
" "	Mr. James Gothrup, Traffic Manager, V I C Metal Products, Inc. (Auto Stampings).
" "	Mr. Louis Kube, President, Steel Tank and Fabricating Company.
Kalkaska, Michigan	Mr. Lee Husbands, President, Northland Homes, Inc.
Lansing, Michigan	Mr. Ray E. Pfeifer, Staff Forester, Forestry Division, Michigan Department of Natural Resources.
Filer City, Michigan	Mr. Roland Blair, Woodlands Manager, Packaging Co. of America.
" " "	Mr. Richard Yankee, Regional Superintendent, Packaging Co. of America.
Grayling, Michigan	Mr. Sam Collin, Traffic Manager, Bear Archery Division of Victor Comptometer Corporation.
Tuption, Michigan	Mr. James Blood, Plant Manager, Harry Kay Co.

West Branch, Michigan	Mr. Philip Folts, Plant Manager, West Branch Tube Co.
Sterling, Michigan	Mr. John Owen, Vice President, Knights Mill, Inc.
Standish, Michigan	Mr. Richard Seibert, Sales Manager, A. B. Kustom Tube Co.
Cadillac, Michigan	Mr. E. W. Townsend, Plant Manager, St. John's Inc. (Furniture).
" "	Mr. Steve Frisby, Traffic Manager, Cadillac Rubber and Plastics Co.
" "	Mr. C. A. Matenies, Material Control Brooks and Perkins (Construction Equipment).
" "	Mr. Don Powell, Treasurer, Cadillac Malleable Iron Co. (Foundry).
" "	Mr. Evald Holbrook, Traffic Manager, Kysor Industrial Corporation.
Reed City, Michigan	Mr. Robert Hayes, Traffic Manager, Gardner-Denver Co. (Electric Tools).
" " "	Mr. Dale Pontz, Traffic Manager, Miller Industries, Inc. (Store Fronts).
Big Rapids, Michigan	Mr. K. J. Barrett, Vice President, Hanchett Magna-Lock Co. (Machine Tools).
" " "	Mr. Ronald Linpemuth, Traffic Manager, Wolverine World-Wide (Shoes).
" " "	Mrs. Doris Lossin, Material Control, Root Archery Company (Sporting Goods).