

**Economic Impact Analysis:
Plymouth-Kohler Rail Corrido**

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Purpose of the Study

In 2006, the Wisconsin & Southern Railroad Company (WSOR) submitted an application to the Wisconsin Department of Transportation (WisDOT) for a Freight Rail Preservation Program (FRPP) grant to purchase the rail line between the communities of Plymouth and Kohler (see Figure 1). As of March 15, 2006, no rail service existed on the roughly 11-mile corridor. This study analyzes the economic potential of the rail corridor and the benefits for the surrounding communities and businesses if rail service returns.

Background

The 11-mile rail corridor under study was originally constructed in 1859 and was a component of the passenger rail service between the Sheboygan County communities of Plymouth and Sheboygan. The Sheboygan & Mississippi Railroad built the rail line with plans that it would eventually connect Sheboygan with Fond du Lac, and continue further west to the Mississippi River. The line was never constructed further west than Princeton in Green Lake County.¹ However, this corridor eventually connected these communities, along with Kohler and Sheboygan Falls, to two major north-south rail corridors that linked Green Bay to Milwaukee on the west side, and Lake Michigan communities to Milwaukee on the east side.

The Union Pacific Railroad (UP) has owned the rail line since it acquired the Chicago & North Western Railroad in 1995. Approximately 4 miles of the 11-mile corridor (between Sheboygan Falls and Kohler) was still in service until March 15, 2006, when the UP embargoed the line due to poor track conditions. The other 7 miles (between Plymouth and Sheboygan Falls) has been out of service for at least 20 years. The UP continues to own and operate the rail line between Kohler and Sheboygan.

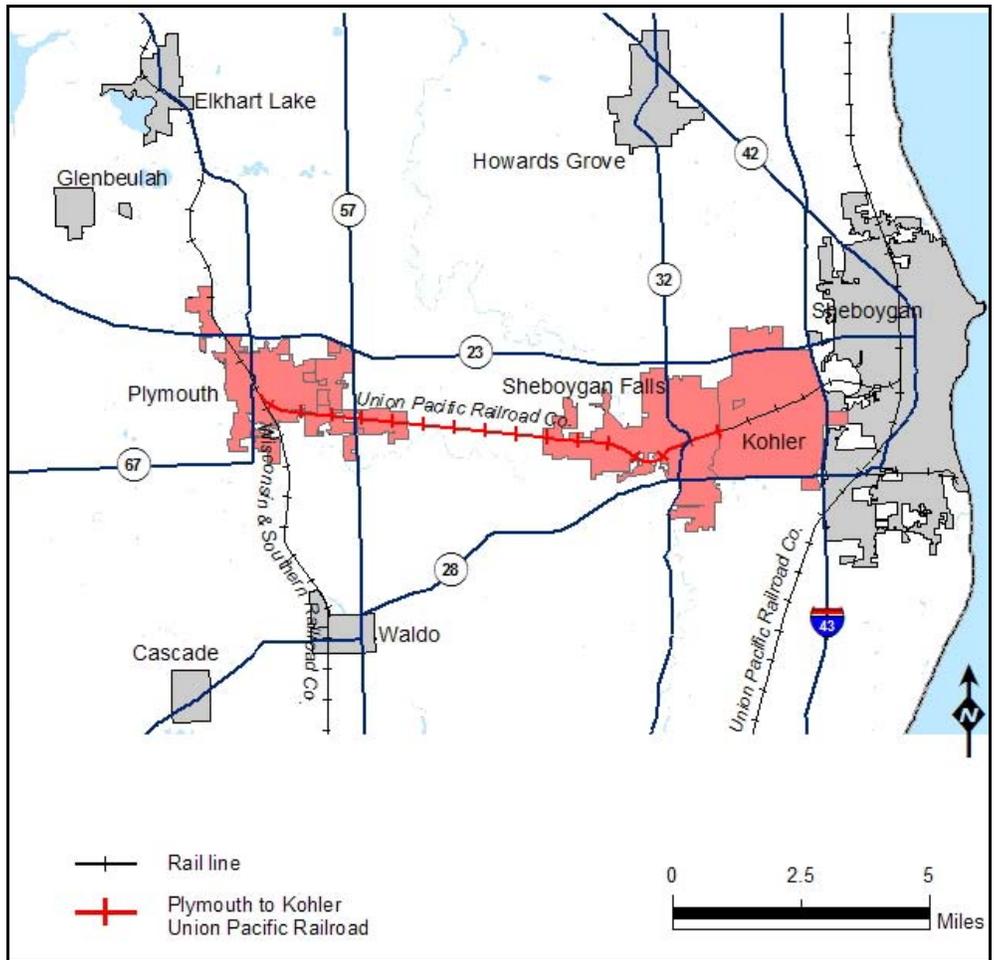
WisDOT is considering purchasing and returning to service all or part of the 11-mile line. The recently embargoed 4-mile stretch has not had any significant tie replacement since the early 1980s and will need some work before service can be reestablished. Significant rehabilitation will be needed for long-term operation. The other 7 miles that has not been in service for at least 20 years needs to be improved before service could begin.

In 2005, the north-south rail corridor running through Plymouth was purchased by the State of Wisconsin from Canadian National (CN). The 37-mile line connects Saukville and Kiel and is now operated by WSOR. A small segment of that corridor in Plymouth is still owned by the UP, and would be purchased as part of the Plymouth to Sheboygan Falls line. If the 11-mile corridor being evaluated is purchased and returned to service, Sheboygan Falls, Kohler and Sheboygan businesses would have a rail connection to Milwaukee via the Saukville to Kiel line.

When service ended in 2006, the Union Pacific served 4 shippers between Sheboygan Falls and Kohler, and WSOR has identified a fifth customer in Sheboygan that would add additional traffic to this line. These businesses combine to produce about 1000 carloads each year. Commodities shipped include fertilizer, feed, grain, plastics, lumber, and lime stone. A large number of additional businesses near the corridor have the potential to utilize the rail line.

¹ Wangemann, Bill (2003), "Dreams of a railroad stay on track", The Sheboygan Press, Sept 9

Figure 1: Plymouth-Kohler Rail Line Study Area



Economic Impact Analysis Versus Economic Analysis

The terms economic impact analysis and economic analysis are often used in economic studies conducted by WisDOT. It is important to distinguish between these terms since WisDOT conducts both types of analysis in evaluating the impacts of transportation improvements.

Economic impact analyses relate specifically to the development of the economy, i.e., jobs, wages, businesses, private investment, and increases in business productivity.² In this study, economic impacts are analyzed in a specific geographic area, i.e. the communities along the Plymouth-Kohler rail corridor segment.

Economic analyses are broader in scope than economic impact analyses. Economic analyses often include an examination of user benefits for travelers on a transportation route, evaluation of quality of life issues, and business and economic development impacts. Economic analyses are generally associated with larger and more expensive transportation improvements, such as improving a long stretch of highway in a rural area, an expensive bridge, or a tunnel project in a metropolitan area. Benefit-cost analysis, access to labor, increases in mobility, value of time, and business costs related to traffic congestion are terms often used to describe impacts (and their distribution) evaluated in economic analyses.

WisDOT uses economic analyses to help identify opportunities for more specific economic benefits including: 1) reduced business operating costs; 2) increased business productivity; 3) expanded market area; and 4) increased access to labor, suppliers, services, and raw materials. A transportation improvement or lack of improvement could increase or decrease the attractiveness of the region for economic development. When a transportation project reduces business access and/or the volume of traffic along transportation corridors, such potential negative economic impacts are also examined.

Research Methodology

For the purpose of examining the loss of rail service in the Plymouth-Kohler rail corridor and the potential for reviving the service, this study evaluated the direct economic impacts to the four affected businesses that recently had used rail service. WisDOT surveyed the affected businesses to determine alternative freight transportation modes that now are used and the costs and impacts associated with using the alternative modes. Economic multipliers were also calculated to determine how important the four businesses are to the regional economy.

The study also examined the potential for other businesses in the area to use rail in the future. WisDOT used its Geographic Information System (GIS) and internet-based business database to identify businesses within five miles of the Plymouth-Kohler rail corridor that have industrial classifications that are identical or similar to businesses that typically incorporate rail service as part of their operations. WisDOT also surveyed businesses, government officials and local economic development professionals to provide insight into additional, prospective rail users in the region.

² Current Practices for Assessing Economic Development Impacts from Transportation Investments, National Cooperative Highway Research Program, NCHRP Synthesis 290, Transportation Research Board, 2000.

Profile of Sheboygan County

A brief economic profile of Sheboygan County is useful in providing a context within which to examine the impact of transportation projects and corridors. Transportation investments may or may not help stimulate the local economy, depending on the economic characteristics of the communities along the transportation corridor.

Table 1 lists population and income statistics for Wisconsin, Sheboygan County, and the communities along the study corridor.

Table 1: Vital Statistics for the Plymouth-Kohler Study Area

	Population 1990	Population 2005 ³	Change	% Change	Per Capita Income 1990 ⁴	Per Capita Income 2000 ⁵	1990-2000 Change	1990-2000 % Change	Unemployment Rate 2005 ⁶
State of Wisconsin	4,891,769	5,580,757	688,988	14.1%	13,276	21,271	7,995	60.2%	4.7%
Sheboygan Co.	103,877	116,075	12,198	11.7%	13,425	21,509	8,084	60.2%	4.0%
City of Plymouth	6,769	8,213	1,444	21.3%	12,764	22,260	9,496	74.4%	NA
City of Sheboygan Falls	5,823	7,254	1,431	24.6%	14,120	22,456	8,336	59.0%	NA
Village of Kohler	1,817	2,026	209	11.5%	24,772	39,355	14,583	58.9%	NA

Sources: U.S. Census 1990, U.S. Census 2000, Wisconsin Department of Administration, Population and Housing Estimates, http://www.doa.state.wi.us/docs_view2.asp?docid=3583, U.S. Dept. of Commerce, Bureau of Economic Analysis

Plymouth and Sheboygan Falls are two of the county's largest and fastest growing communities, with a population growth rate above 20% percent over the 1990-2005 analysis period. Sheboygan County's 2003 per capita income ranks 9th in the state.⁷ While Kohler's rate of population growth over the analysis period was not as high, its per capita income level is the highest in the county and one of the highest in Wisconsin. Sheboygan County's unemployment rate in 2005 was slightly lower than the state average.

³ Wisconsin Department of Administration, Population and Housing Estimates, <http://www.doa.state.wi.us>

⁴ "Receipts from the following sources are not included as income: capital gains, money received from the sale of property (unless the recipient was engaged in the business of selling such property); the value of income "in kind" from food stamps, public housing subsidies, medical care, employer contributions for individuals, etc.; withdrawal of bank deposits; money borrowed; tax refunds; exchange of money between relatives living in the same household; and gifts and lump-sum inheritances, insurance payments, and other types of lump-sum receipts. " (<http://www.census.gov/prod/cen2000/doc/ProfileTD.pdf>)

⁵ Ibid.

⁶ Wisconsin Department of Workforce Development , OEA - Unemployment Rates and Labor Force Estimates, http://www.dwd.state.wi.us/oea/unemploy_rates_labor_stats.htm

⁷ Wisconsin Department of Workforce Development, *Sheboygan County Workforce Profile*, December 2005, http://www.dwd.state.wi.us/oea/cp_pdf/s117cpw.pdf

Sheboygan County is dependent on its manufacturing base for employment. In 2004, manufacturing was the largest of the county's industries, accounting for 38 percent of the county's jobs. The average annual manufacturing wage in the county was \$43,517, compared to \$44,145 in Wisconsin.⁸ In the county, as well as statewide, manufacturing wages have historically been higher than wages in most other industry sectors. With such a significant segment of the regional economy dependent upon manufacturing, transportation factors are important in both providing for the availability of transportation options needed that handle the inbound and outbound commodities as well serving as a means to improve efficiency and reduce operating costs of the manufacturers.

In terms of the percentage of the business mix in the County, it should be noted that Sheboygan County's business profile is nearly identical to the business profile for the state of Wisconsin. The County also has a growing leisure and hospitality industry, which includes restaurants, hotels, golf courses, theaters, and other tourism-related services. Table 2 profiles the number of businesses by industry type in Sheboygan County and statewide.

⁸ Ibid.

Table 2: Sheboygan County Businesses by Industry Type (2006)

	Agriculture, Forestry, Fishing, Hunting & Mining	Construction	Manufacturing	Transportation, Warehousing & Utilities	Trade (wholesale & retail)	Information	Finance, Insurance, Real Estate, and Rental and Leasing	Services	Total
Sheboygan County	65	558	261	158	1,155	83	565	2,587	5,432
% of all employers in county along rail corridor	1.2%	10.3%	4.8%	2.9%	21.3%	1.5%	10.4%	47.6%	100.0%
Statewide total	3,807	28,977	17,142	7,643	60,955	5,453	28,470	145,036	297,483
% of all employers statewide	1.3%	9.7%	5.8%	2.6%	20.5%	1.8%	9.6%	48.8%	100.0%

Source: ReferenceUSA (Version 2006.4), from the Library division of *infoUSA*, a web-base business database, updated monthly. Available from www.referenceusa.com.

The Total column reflects the total of the listed industrial classifications only, excluding Public Administration and Nonclassifiable establishments. Double-counting of businesses may occur due to establishments specializing in more than one classification. The true total number of all businesses in Sheboygan County is 4,967 and 276,507 statewide.

Table 3 shows the largest employers (with over 500 employees) in Sheboygan County. Several of the listed companies are located in Plymouth, Sheboygan Falls, or Kohler.

Table 3: Largest Employers in Sheboygan County (2004)

Employer Legal Name	Industry Product or Service	Employment Level
Kohler Co.*	Enameled iron & metal sanitary ware manufacturing	1000+
Sheboygan Public School	Elementary & secondary schools	1000+
Bemis Mfg. Co.*	All other plastics product manufacturing	1000+
County of Sheboygan	Executive & legislative offices, combined	1000+
J L French Corp.	Aluminum die-casting foundries	500-999
Aurora Health Care Central Inc.	Gen. medical & surgical hospitals	500-999
Aurora Medical Group Inc.	Offices of physicians, except mental health	500-999
Fresh Brands Distributing Inc.	Gasoline stations with convenience stores	500-999
Sargento Foods Inc.*	Cheese manufacturing	500-999
Acuity Insurance	Direct property & casualty insurers	500-999
Rockline Industries Inc.	All other converted paper product manufacturing	500-999
Johnsonville Sausage LLC	Meat processing	500-999
Sheboygan Clinic	Freestanding emergency medical centers	500-999
St Nicholas Hospital	Gen. medical & surgical hospitals	500-999
City of Sheboygan	Executive & legislative offices, combined	500-999
Wal-Mart Associates Inc.*	Discount department stores	500-999
Locate Staffing Inc.	Temporary help services	500-999
Lear Corp.	All other plastics product manufacturing	500-999
The Vollrath Co. LLC	Kitchen utensil, pot, & pan manufacturing	500-999
Thomas Compressors & Vacuum	Surgical & medical equipment & manufacturing	500-999
American Club*	Hotels, motels, except casino hotels	500-999

*Located in Plymouth, Sheboygan Falls, or Kohler

Source: Wisconsin Department of Workforce Development, http://dwd.state.wi.us/oea/top_employers.htm, ReferenceUSA.com⁹

Sheboygan County Rail Commodity Movements

In 2004 commodities move into and out of Sheboygan County by rail. Tables 4 and 5 show the county's major categories of inbound and outbound rail shipments. Coal was the dominant category of imported commodity, accounting for 87% of the 3.1 million tons imported into Sheboygan County. Chemicals & Allied Products, Waste & Scrap, and Pulp & Paper Products were other important categories of imports to the county.

⁹ ReferenceUSA (Version 2006.4), from the Library division of *infoUSA*, a web-base business database, updated monthly. Available from www.referenceusa.com.

Table 4: 2004 Sheboygan County Inbound Rail Tonnages By Commodity

Commodity	Tons	Percent of Total
Coal	2,740,400	87.1%
Chemicals & Allied Products	166,000	5.3%
Waste & Scrap	84,000	2.7%
Pulp & Paper Products	79,500	2.5%
Farm Products	23,600	0.8%
Food & Kindred Products	20,000	0.6%
Petroleum & Coal Products	16,200	0.5%
Lumber & Wood Products	10,000	0.3%
Stone, Clay, Glass & Concrete	3,900	0.1%
Total	3,143,600	

Chemicals & Allied Products and Waste & Scrap made up about three-quarters of all rail tonnage exported from Sheboygan County.

Table 5: 2004 Sheboygan County Outbound Rail Tonnages By Commodity

Commodity	Tons	Percent of Total
Chemicals & Allied Products	74,300	43.6%
Waste & Scrap	55,200	32.4%
Food & Kindred Products	33,100	19.4%
Petroleum & Coal Products	7,800	4.6%
Total	170,400	

Table 6 shows that in terms of tonnage, number of rail cars, and commodity values, inbound rail shipments to Sheboygan County exceeded outbound shipments by a margin of over ten to one.

Table 6: Sheboygan County Freight Rail Movements (2000-2004)

Year	Tonnage (Million Tons)			Rail Cars (Thousand Cars)			Value (Million \$)		
	Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
2000	2.7	0.2	2.9	25.3	2.1	27.4	\$45.8	\$2.8	\$48.6
2001	2.8	0.2	3.0	26.4	1.9	28.3	\$47.8	\$3.6	\$51.4
2002	3.1	0.2	3.2	28.2	2.1	30.3	\$47.3	\$3.3	\$50.6
2003	3.0	0.1	3.1	28.0	1.3	29.3	\$47.6	\$1.8	\$49.4
2004	3.1	0.2	3.3	29.7	1.9	31.6	\$50.6	\$3.5	\$54.1

The consumption of coal by Sheboygan County's major power generating facility provides one reason for the discrepancy between inbound and outbound shipments. The local economy's reliance on the industrial and manufacturing sector provides another. These sectors typically input large quantities of heavy, bulk goods by rail and deliver higher value, finished goods by truck.

Figure 2 shows the origins of Sheboygan County's 3.1 million tons of inbound rail freight. Nearly 90 percent of the county's inbound freight had an origin in the Midwest. About 9 percent of inbound freight came from the eastern and southern states, and the remainder of inbound freight came from western states and Canada.

Figure 2: Origins of 2004 Sheboygan County Inbound Rail Shipments

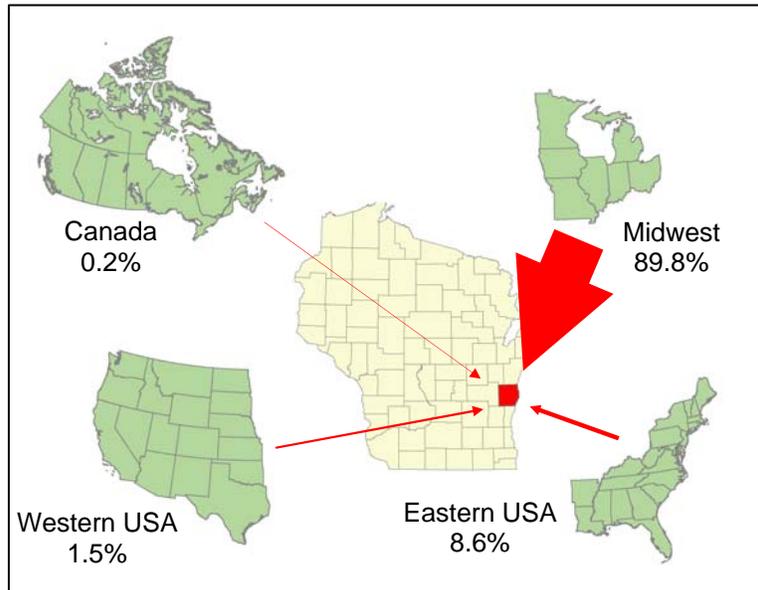
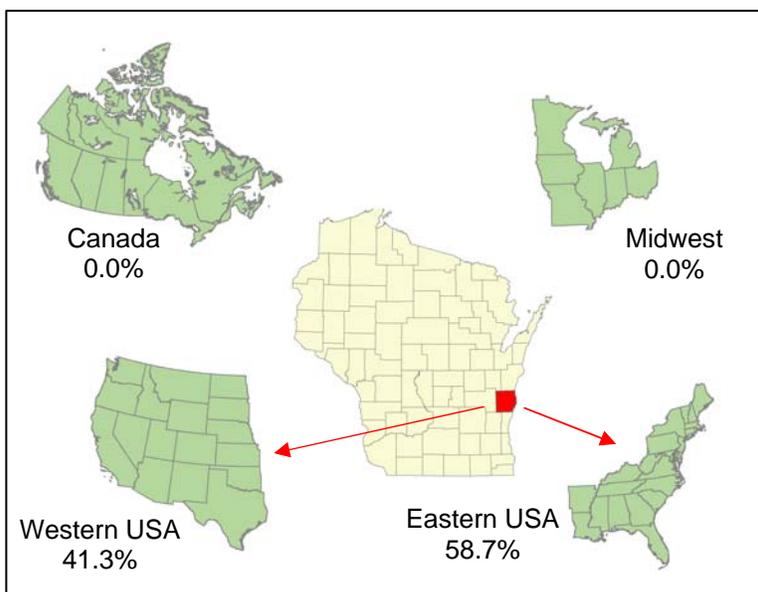


Figure 3 shows the destinations of Sheboygan County's 0.2 million tons of outbound rail freight. About 59 percent of outbound freight went to eastern and southern states, and over 41 percent went to western states.

Figure 3: Destinations of 2004 Sheboygan County Outbound Rail Shipments



Economic Impact to Businesses Directly Served by the Plymouth-Kohler Rail Line

WisDOT assessed the economic impact of freight rail service to the four businesses that had used the service up until March 2006. These businesses are listed in Table 7.

Table 7: Businesses Without Plymouth-Kohler Rail Service Since March 2006

Business Name	Business Description
Bemis Manufacturing	Plastics manufacturing
Kettle-Lakes Cooperative	Agricultural cooperative
Morrelle Warehouse and Transfer	Transportation and storage
Richardson Industries, Inc.	Lumber and wood manufacturing

WisDOT interviewed the four businesses and collected proprietary employment, payroll and transportation information. This information was used to estimate the importance of the businesses to the local economy in terms of jobs and incomes. The information was also used to estimate the total added transportation costs to the businesses as a result of the loss of rail service.

The economic significance to the community of the four businesses who lost rail service can be estimated and expressed in terms of employment and aggregate personal incomes. Economic effects ripple outward through the community, providing business, incomes, and jobs directly and indirectly. *Direct* economic impact refers to the sum of the jobs and incomes specifically at the four businesses. *Indirect* economic impact refers to the sum of jobs and incomes of the firms that supply the four businesses with goods and services. *Induced* economic impact refers to the effect within the community of four businesses' employees spending their wages. This money is spent in the local economy, which then becomes income for other community businesses (e.g. grocery stores and restaurants). The analytical tool used to compute these economic impacts is IMPLAN¹⁰ economic impact analysis software that replicates the interactions of firms and individuals in the Wisconsin economy.

The total economic impact of the four businesses, shown in Table 8, is the sum of direct, indirect, and induced economic impacts. In 2005 the four businesses along the Plymouth-Kohler rail line directly and indirectly created approximately 2,883 jobs, \$137 million in personal income, and \$614 million in output (sales).

¹⁰ The IMPLAN model is a flexible, detailed, and widely used input-output impact model. More than a set of multipliers, it provides users with the ability to define industries, economic relationships, and projects to be analyzed. It can be customized for any county, region, or state. It also can be used to assess the "ripple effects" or "multiplier effects" caused by increasing or decreasing spending in various parts of the economy. The model is primarily used to assess the economic impacts of facilities or industries, or changes in their level of activity in a given area. (Courtesy of Economic Development Research Group, Boston, MA)

Table 8: 2005 Economic Impact of Businesses Without Plymouth-Kohler Rail Service

Type of Economic Impact	Number of Jobs	Personal Income (\$ Million)	Output (Sales) (\$ Million)
Direct And Indirect	2,371	\$114	\$544
Induced	512	\$23	\$70
Total	2,883	\$137	\$614

When the four businesses in the Plymouth-Kohler rail corridor lost their direct rail service, they were forced to use alternative means of transportation. Some of the businesses are able to ship commodities by rail to other locations in Sheboygan County and then truck the commodities the remaining distance to their sites. One business now must truck commodities from a rail terminus in Chicago. In each case the affected businesses are now incurring higher transportation costs due to the loss of rail service.

Each business provided WisDOT with an estimate of the cost savings they would realize if rail service were reinstated in the rail corridor. Over a ten-year period, the estimated present value of these savings totals \$5.7 million (using a 5 percent discount rate).

Some of the four businesses noted additional potential impacts from losing direct rail service. One of the businesses noted that it had planned on expanding prior to losing rail service. One business indicated that the loss of flexibility provided by rail service negatively impacted its ability to purchase commodities at the best price. Finally, another business indicated that it would consider moving out of Wisconsin if the Union Pacific Railroad also abandoned service in and around the City of Sheboygan.

Identifying Potential Rail Users: Matching Standard Industrial Classification Codes

WisDOT developed a list of potential rail users by identifying businesses in the study area that have classifications that are typically associated with rail users.

WisDOT first identified the types of commodities flowing into, from, and through the state of Wisconsin via rail and determined their associated Standard Industrial Classification (SIC) codes. WisDOT's analysis found a total of 19 SIC codes that are associated with rail use in the state (see Table 9).

WisDOT then identified all the businesses in the study region that are located within 5 miles of the Plymouth-Kohler rail line. WisDOT identified 4,357 businesses located in zip codes within 5 miles of the rail line.

Finally, WisDOT selected from this group of businesses those that had SIC codes matching the codes identified from the commodity flow analysis. Of the 4,357 business located within 5 miles of the Plymouth-Kohler rail line, WisDOT found that 223 of them had SIC codes associated with rail use. WisDOT also found that 60 of these businesses are located within 1 mile of the rail line (see Table 9)

Although this analysis identified 223 potential rail users within 5 miles of the Plymouth-Kohler rail line, it should be noted that identifying businesses with the same industrial classifications as businesses that typically use rail does not necessarily identify the number of businesses that actually will use rail should rail service be returned. The purpose of this analysis was to identify the realm of possible rail users within a reasonable geographic area of the rail corridor. This information provides an excellent starting point and helps to narrow the search for a future rail operator that may want to further identify the potential users of the rail service.

Table 9: Potential Rail Users along Plymouth-Kohler Rail Line

Standard Industrial Classification (SIC)	Description	Companies within 1 mile of rail line	Additional companies within 5 miles of rail line	Total companies within 5 miles of rail line
1	Agriculture production-crops	0	6	6
14	Mining and quarrying of nonmetallic minerals, except fuels	0	1	1
20	Food and kindred products	2	11	13
23	Apparel and other finished products made from fabrics and similar materials	1	2	3
24	Lumber & wood products, except furniture	1	6	7
25	Furniture and fixtures	3	5	8
26	Pulp and paper products	0	7	7
27	Printing, publishing and allied industries	7	22	29
28	Chemicals or allied products	3	5	8
30	Rubber and miscellaneous plastic products	5	8	13
32	Stone, clay, glass and concrete products	3	2	5
33	Primary metal industries	2	5	7
34	Fabricated metal products, except machinery and transportation	6	17	23
35	Machinery, except electric	13	23	36
36	Electrical and electronic machinery, equipment, and supplies	1	3	4
37	Transportation equipment	0	2	2
39	Miscellaneous manufacturing industries	3	10	13
42	Motor freight transportation and warehousing	10	28	38
47	Transportation services	0	0	0
	Number of Businesses with identical or similar SICs to the types of businesses that typically use rail services	60	163	223

Sources: ReferenceUSA, WisDOT GIS analysis

Identifying Potential Rail Users: Business Interviews

Through discussions with local officials and the four businesses that recently lost rail service, WisDOT identified additional businesses in the study region that might be good candidates to use rail service in the Plymouth-Kohler rail corridor. WisDOT interviewed these additional businesses by telephone to gauge their interest in rail service.

One transportation and warehousing business indicated strong interest in a rejuvenated Plymouth-Kohler rail line. The business indicated that the Plymouth-Kohler rail line would help lower costs by allowing them to ship commodities directly to their site by rail (the business indicated they would need to re-open some rail spurs). Currently, the business brings commodities into another Sheboygan County community by rail and then trucks the commodities the remaining distance.

Five food-processing businesses expressed at least some interest in reviving rail service on the Plymouth-Kohler rail. These businesses indicated that rail service could play a role in reducing their transportation costs.

Identifying Potential Rail Users: Local Official Interviews

WisDOT interviewed local officials and community economic development organizations from Plymouth, Sheboygan Falls, and Kohler. WisDOT asked if the communities had been approached in the past two years by businesses interested in locating in their community that had a need for rail service. WisDOT also asked if the communities had plans for new industrial parks with access to rail.

Plymouth, Sheboygan Falls, and Kohler indicated that no businesses with rail needs had approached them in the past two years about locating in their communities. However, two of the communities indicated that rail service might be helpful in attracting new businesses.

The Plymouth Industrial Development Corporation (PIDC) is developing a new industrial park on the southeast side of Plymouth. The Plymouth-Kohler rail line bisects this new industrial park. However, PIDC indicated that since this segment of the rail line has been inactive for such a long time, access to rail service has not factored into efforts to develop and market the industrial park.

Shortly before Union Pacific Railroad embargoed the Sheboygan Falls-Kohler rail segment, the City of Sheboygan Falls purchased 72 acres of land on the west side of the community for the development of a new industrial park. The city indicated that rail access was going to be a major factor in the industrial park's development and marketing efforts. Sheboygan Falls noted that the loss of rail service to the community will not prevent the industrial park's development from moving forward, but it will make it more difficult.

The Village of Kohler has not been impacted by the loss of rail service in the Plymouth-Kohler rail corridor. Union Pacific Railroad continues to provide service to the village from the east. UP currently services one business in Kohler. The village indicated they are considering building a commercial business park, which won't require rail service.

Summary and Conclusion

The Wisconsin Department of Transportation is considering purchasing and returning service to all or part of the 11-mile rail line connecting the communities of Plymouth, Sheboygan Falls, and Kohler. The Plymouth-Sheboygan Falls rail segment has been out of service for at least 20 years. The Sheboygan Falls-Kohler rail segment had served four businesses in Sheboygan Falls until UP embargoed the service on March 15, 2006 due to poor track conditions.

WisDOT conducted an economic impact analysis of the Plymouth-Kohler rail segment. WisDOT assessed the direct and indirect community economic impacts of the four businesses that recently had been served by the rail line, and WisDOT also assessed the transportation cost savings these four businesses could realize if rail service in the corridor returned. WisDOT also gauged the potential for future rail use along the corridor using two methods. WisDOT first identified businesses along the corridor with Standard Industrial Classification (SIC) codes identical or similar to known rail users in Wisconsin. WisDOT also identified potential rail users through discussions with local businesses and local officials.

WisDOT's analysis showed that the four businesses that recently had been served by the rail line directly and indirectly created approximately 2,883 jobs, \$137 million in personal income, and \$614 million in output (sales).

The analysis also showed that over a ten-year period, the four businesses could save \$5.7 million (present value, discounted at 5%) in transportation costs if rail service returned in the corridor.

WisDOT found 4,357 businesses located within 5 miles of the Plymouth-Kohler rail line. Of this total, 223 businesses have SIC codes typically associated with rail users. WisDOT's analysis showed that 60 of these potential rail users are located within 1 mile of the Plymouth-Kohler rail line.

WisDOT's discussions with potential rail-using businesses in the rail corridor showed one transportation and warehousing business with a strong interest in the revival of the Plymouth-Kohler rail line. Five food-processing businesses indicated at least some interest in the rail line.

Through discussions with local officials, WisDOT found that no businesses with rail needs had contacted Plymouth, Sheboygan Falls, or Kohler in the past two years about locating in those communities. The cities of Plymouth and Sheboygan Falls each are developing industrial parks along the rail line. The Plymouth Industrial Development Corporation is not pursuing rail access as part of their industrial park development efforts. Sheboygan Falls, on the other hand, had planned on rail access as a major component of their industrial park development efforts.

The combination of beneficial economic impacts to recent rail users in the Plymouth-Kohler rail corridor and the clear potential for additional businesses to use the rail corridor in the future suggests that state investment in the rail corridor is justified. The information in this report can be used in conjunction with more detailed assessments of purchase and rail line rehabilitation costs to guide the state's final investment decision.