NORTHERN INDIANA PASSENGER RAIL CORRIDOR

PURPOSE AND NEED

Chicago-Fort Wayne-Lima Corridor

Prepared for the City of Fort Wayne, IN November 2017



CONTENTS

1	Ir	ntro	oduction and Background	1
	1.1 Pr		Project Description	1
	1.2		Current Project Phase/NEPA	2
	1.3		Passenger Rail Service Background	2
	1.4		Prior Planning Studies	2
	1	.4.1	1 Midwest Regional Rail Initiative	2
	1	.4.2	2 Ohio Hub System	3
1		.4.3	3 NIPRA Feasibility Study	3
2	Ρ	urp	pose and Need	4
	2.1		Project Purpose	4
	2.2		Project Need	4
	2.2.1		1 Existing transportation alternatives do not meet Corridor travel needs for business and personal trips	
	2.2.2		2 Highway system congestion and reliability concerns	7
	2.2.		3 Population and employment growth will increase travel demand and place greater pressure on existing transportation modes10	
	2	.2.4	4 More transportation choices are needed to support the region's economic competitiveness and facilitate its economic development goals	5
3	В	Siblio	iography1	3

TABLES

 Table 1: Base and Projected Socioeconomic Data for the Corridor Travel Market Area......10

FIGURES

Figure 1: Chicago-Fort Wayne-Lima Corridor Location	1
Figure 2: Proposed Midwest Regional Rail System	3
Figure 3: Northwest Indiana Roadway Congestion, 2008 and 2040	9

1 INTRODUCTION AND BACKGROUND

This report introduces the Northern Indiana Passenger Rail Corridor Project (Project) and provides a description of the proposed Project, prior studies, and the purpose and need for the Project.

1.1 **Project Description**

The City of Fort Wayne and the Northern Indiana Passenger Rail Association (NIPRA), in cooperation with the Indiana Department of Transportation (INDOT) and the Federal Railroad Administration (FRA), propose to establish a passenger rail service from Chicago through the cities of Gary, Valparaiso, Plymouth, Warsaw, and Fort Wayne, IN and on to Lima, OH (the Chicago-Fort Wayne-Lima corridor, or Corridor). The new Corridor service would improve access and mobility for the communities along the Corridor and lay the foundation for potential future passenger rail connections in Ohio, including connections to Columbus, other metropolitan Ohio communities and beyond.

The proposed Chicago-Fort Wayne-Lima Corridor, as shown in **Figure 1**, is approximately 200 miles long. It connects the major metropolitan region of Chicago with Fort Wayne and Lima and the smaller cities and towns in between including Gary, Valparaiso, Plymouth and Warsaw in Indiana. The Corridor traverses east to west through two counties in Ohio (Allen and Van Wert), eight counties in Indiana (Allen, Whitley, Kosciusko, Marshall, Starke, La Porte, Porter and Lake) and Cook County Illinois where it would terminate at Chicago Union Station.



Figure 1: Chicago-Fort Wayne-Lima Corridor Location

1.2 Current Project Phase/NEPA

This current study phase is undertaking early planning activities that includes identifying the Project purpose and need, conducting an analysis of route, service and preliminary investment alternatives to develop an incremental approach to service implementation and completing conceptual engineering to understand Project infrastructure requirements and preliminary cost estimates. Decisions from these early planning activities will position the Project to complete an environmental review required under the National Environmental Policy Act (NEPA) for a potential future federally funded action.

The Project would use the selected "South of the Lake" route (Chicago Union Station to Tolleston in Gary, Indiana) that is being evaluated by the Michigan Department of Transportation and the FRA in the *Chicago-Detroit/Pontiac Passenger Rail Corridor Program Tier 1 Draft EIS* published in September 2014. The Final EIS is anticipated in fall 2017.

The Project sponsors anticipate requesting federal funds, requiring compliance with NEPA. The NEPA process is intended to help public officials make decisions that are based on an understanding of potential environmental consequences.

1.3 Passenger Rail Service Background

No passenger rail service currently operates along the Chicago-Fort Wayne-Lima Corridor. Amtrak previously operated a long-distance passenger service between Chicago, Fort Wayne and Lima along the Chicago, Fort Wayne & Eastern (CFER) Fort Wayne line as a part of the Broadway Limited and Capitol Limited services that connected Chicago to New York and Washington DC. Amtrak rerouted the services in 1990 when the Fort Wayne line deteriorated under the ownership of Conrail, which decided to focus its investments in routes that paralleled the Fort Wayne Line. Amtrak discontinued the Broadway Limited in 1995, while the Capitol Limited still operates through South Bend, IN and Toledo, OH on its way to Washington DC.

1.4 **Prior Planning Studies**

Prior passenger rail planning studies provide the basis for the Chicago-Fort Wayne-Lima corridor.

1.4.1 Midwest Regional Rail Initiative

In 1996, nine Midwest states, including Indiana and Ohio, and Amtrak initiated the Midwest Regional Rail Initiative (MWRRI). The MWRRI elements include:

- Operation of a hub and spoke passenger rail system centered on Chicago
- Use of 3,000 miles of existing rail right of way to connect rural and urban areas
- Track and signal improvements and introduction of modern trains operating at speeds to 110 mph
- Provision of multi-modal connections to improve system access
- Improvement in frequency, reliability, speed, and on-time performance

Under the passenger rail system proposed by MWRRI, shown in **Figure 2**, Chicago serves as the hub around which the Midwest service is based. The Chicago-Fort Wayne corridor was proposed in MWRRI with service to Toledo and Cleveland.

FRA has initiated a new planning effort, the Midwest Regional Rail Planning Study, to provide a 40-year framework as an update to the 2006 Midwest Regional Rail Initiative, a 12-state Midwest passenger rail network. The new study will look at the entire network area including service levels, financing, passenger rail interconnections and governance. NIPRA and the City

of Fort Wayne are participating in the planning process through the Stakeholder Planning Group. A new Midwest Rail Plan is anticipated in Summer 2018.

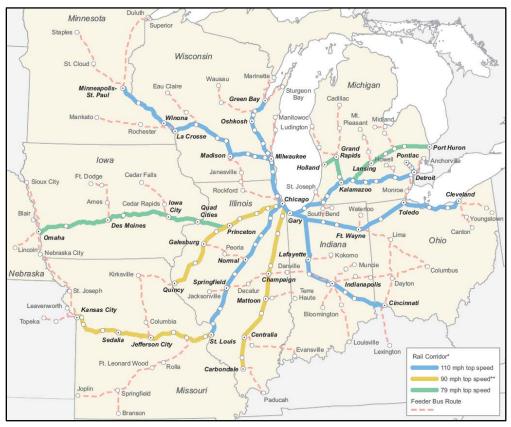


Figure 2: Proposed Midwest Regional Rail System

1.4.2 Ohio Hub System

An Ohio Hub system was originally conceived in 2004 as an eastern complement to the system proposed by MWRRI. It consisted of a Cleveland Hub network with four interconnecting 110-mph diesel-powered passenger rail lines. However, in 2007 the Ohio concept was expanded by the addition of three Columbus-centered routes to Pittsburgh, Toledo/Detroit and Fort Wayne/Chicago. As a result, the name of the system was changed from "Cleveland Hub" to "Ohio Hub" reflecting the expanded statewide and multiple-hub focus of the proposed corridor system.

The Ohio Hub study funded the initial feasibility-level assessment of the rail route connecting Columbus to Fort Wayne, but the scope of that assessment did not extend west of Fort Wayne.

The Ohio Hub system connected the Chicago-Columbus corridor to Pittsburgh, which together with service onward to Harrisburg and Philadelphia, could provide the first interregional link between the Northeast Corridor, Ohio Hub, and Midwest Regional Rail Systems. The State of Ohio discontinued the Ohio Hub study in 2010.

1.4.3 NIPRA Feasibility Study

Since the completion of MWRRI studies in 2004, NIPRA built on the MWRRI's plan to return passenger rail service to Fort Wayne by testing the feasibility of providing service to Columbus instead of Toledo and Cleveland. In 2013, NIPRA commissioned a study to assess the

feasibility of a Chicago-Fort Wayne-Lima-Columbus Corridor with 110 or 130 mph service. The study revealed that positive financial and economic outcomes can be achieved on this corridor and the development of the route would result in benefits for system users and the communities linked by the system including reduced travel times, reduced highway congestion and reduced travel costs (TEMS, 2013).

With the discontinuance of the Ohio Hub study, NIPRA and the cities of Fort Wayne and Lima realized that the Chicago-Fort Wayne-Lima corridor could still move forward as a segment of independent utility regardless of potential future passenger rail linkages in Ohio and beyond. Therefore, NIPRA and the cities of Fort Wayne and Lima are continuing to take steps to implement service along the Chicago-Fort Wayne-Lima corridor.

2 PURPOSE AND NEED

2.1 Project Purpose

The purpose of the Project is to establish a new intercity passenger rail service from Chicago through the cities of Gary, Valparaiso, Plymouth, Warsaw, and Fort Wayne, IN and Lima, OH. The Project would support the economic competitiveness of the communities, businesses and universities along the Corridor by improving connectivity along the Corridor and providing an alternative transportation mode to Chicago, the region's largest center of economic and cultural activity. The Project would support long-range plans for intercity passenger rail development in the Midwest and lay the foundation for potential future passenger rail connections east of Lima in Ohio, including Columbus.

To maintain cost-effectiveness, the new intercity passenger rail service would operate within existing freight railroad right of way to minimize infrastructure investments needed to provide attractive and reliable passenger rail service, while also avoiding interference with existing and future freight service. Also, a cost-effective operating plan will be identified for the new service that balances ongoing financial operating support with available funding levels, proposed service levels and estimated passenger utilization (ridership).

The passenger rail service would provide a convenient mode of travel by providing station access in central locations within the communities along the Corridor. This would provide convenient access to the passenger rail system for residents and employees along the Corridor and help support local plans for downtown revitalization. The passenger rail service would also provide amenities on the train not offered by other modes of transportation, such as comfortable seating, WIFI and the ability to walk around, work or socialize on the train.

The service would provide travel time choices to accommodate a person's typical daily schedule and allow same-day trips between destinations and Corridor end points. The Project would allow both work-based and personal trips and serve a range of travel needs including employees from major industries along the Corridor that need to access Chicago for work meetings and conferences; tourists that wish to visit the various cultural, recreational and entertainment destinations along the Corridor; residents that cannot or choose not to drive, such as Amish and senior populations, and travelers that may not have access to a vehicle including students attending the 13 universities and colleges along the Corridor.

2.2 Project Need

The need for the Project arises from current travel challenges within the Corridor and the need to provide an additional mode of transportation that would improve transportation connectivity and maintain the economic competitiveness of the small and mid-sized communities along the

Corridor. Highway travel along the Corridor is prone to congestion and unreliable travel times and other travel alternatives do not adequately serve many of the small and intermediate communities along the Corridor, leaving them without adequate transportation access. Furthermore, the Corridor's projected population and employment growth will continue to increase pressure on existing highways creating more congestion and unpredictable travel times and increasing the need for more transportation alternatives.

Specific issues driving the Project need include:

- Existing transportation alternatives do not meet Corridor travel needs.
- Highway system congestion and reliability concerns.
- Population and employment growth will increase travel demand and place greater pressure on existing transportation modes.
- More transportation choices are needed to support the region's economic. competitiveness and facilitate its economic development goals.

2.2.1 Existing transportation alternatives do not meet Corridor travel needs for business and personal trips

The availability and service levels of intercity bus, passenger rail and air service were inventoried and reviewed to determine how well these transportation alternatives serve the communities along the Corridor.

Intercity Commercial Bus Service

The Corridor is served by two Greyhound bus partner carriers, Miller Transportation and Barons Bus Line. Bus service is provided between Fort Wayne and Chicago, but service is very limited for the smaller communities along the Corridor including Valparaiso, Warsaw, Plymouth and Lima. This results in a lack of non-automobile transportation options for travelers going to and from these smaller cities and increases reliance on auto travel. Additionally, intercity buses are subject to the same unreliable travel times due to congestion and inclement weather, discussed in Section 2.2.2, since buses operate along the same highway routes as automobiles.

Commercial bus service levels for the Corridor were evaluated using the schedule and route information from the Greyhound website (Greyhound, 2017). The analysis results are summarized in the following subsections.

Bus Service from Fort Wayne to Chicago

Four daily intercity bus departures are offered from Fort Wayne to Chicago at 7:45 a.m., 12:05 p.m., 3:55 p.m. and 6:35 p.m. Since each trip uses a different route and has a varying number of stops, trip times between Fort Wayne and Chicago range from a minimum of 3 hours and 40 minutes for the most direct route through Warsaw to a maximum of 4 hours and 35 minutes for a less direct route through South Bend. Fares are about \$25 for a one-way economy ticket and about \$50 for a round trip ticket.

Same day travel is possible between Fort Wayne and Chicago, although the options are not likely to serve most trip purposes. For example, a traveler that departs Fort Wayne at 7:45 a.m. EST would arrive in Chicago at 10:25 a.m. CST and would need to be ready to depart Chicago at 4 p.m. CST for a 9:25 p.m. EST arrival in Fort Wayne. The other option is to depart Chicago at 10:45 p.m. CST and arrive in Fort Wayne at 4:05 a.m. EST. The 4 p.m. departure may not provide enough time to complete planned activities in Chicago. The 10:45 p.m. departure would allow more time in Chicago, but is not likely to appeal to many travelers that would prefer to avoid traveling late at night and into the early morning.

Bus Service to Smaller Corridor Communities

Intercity bus service is very limited to the smaller communities along the Corridor, providing some service to Chicago and very limited service between Corridor communities. Also, same day travel is not possible under current bus service schedules.

Valparaiso has the ChicaGo DASH commuter service that provides service between Valparaiso and downtown Chicago, but Valparaiso is not connected to the other communities along the Corridor by intercity bus operators. Plymouth, Warsaw and Lima only have one daily departure to Chicago and service from these communities to Fort Wayne is often at undesirable travel times. According to the Greyhound website, Plymouth has only one daily trip to Chicago that departs in the evening at 7 p.m. and arrives in Chicago at 9:25 p.m. The only option to travel via bus from Plymouth to Fort Wayne takes over nine hours (a car trip is approximately 1 hour and 30 minutes) and requires travel overnight, departing Plymouth at 7 p.m. and arriving in Fort Wayne at 4:05 a.m. The service offerings are similar for Warsaw with only one daily trip to Chicago that departs at 8:50 a.m. and arrives in Chicago at 10:25 a.m. To take the bus from Warsaw to Fort Wayne, requires an early morning departure from Warsaw at 3 a.m. with arrival in Fort Wayne at 4 a.m. Bus service is available from Lima to Chicago, Fort Wayne and Gary, but service to Warsaw and Plymouth from Lima requires travel times with a 10+ hour trip time between Lima and Warsaw and a 32+ hour trip time between Lima and Plymouth.

Commercial Airline Service

Commercial airline service is available between the Fort Wayne International Airport and Chicago O'Hare International Airport. Two airlines, United and American, provide six daily trips from Fort Wayne to O'Hare. According to the USDOT, in 2016, there were 87,019 passengers flying from Fort Wayne International to Chicago O'Hare, of which 5,229 (6%) were flying direct and 81,790 (94%) were connecting to other destinations (USDOT, 2016). This data demonstrates that the flights are primarily operated and priced to support connecting travel beyond Chicago and typically do not serve the needs for regional travel within the Corridor.

The relatively short distance of the Corridor makes it difficult for air travel to be price and time competitive with the automobile. The typical cost of a flight between Fort Wayne and O'Hare is \$200 to \$300 whereas an auto trip would cost about \$85.¹ Although the flight time is about 1 hour, versus approximately 3 hours driving, the additional time it takes to drive to the airport, park, get through security and arrive at the gate makes air travel less efficient for Corridor travel. In addition, commercial air service is not available in the smaller communities along the Corridor which adds travel time to the airport and increases the total air travel time for communities like Warsaw, Plymouth and Lima.

Air travel also does not provide downtown to downtown connections, requiring a second mode of transportation and increasing the total trip time. For example, connection time from O'Hare to downtown Chicago via the L train is approximately 45 minutes, whereas passengers arriving at Chicago Union Station via passenger rail provides immediate connectivity to several modes of transportation available in downtown.

Passenger Rail Service

Passenger rail services in northern Indiana and Ohio are provided by the South Shore Line and two Amtrak long-distance routes. These services are discussed in the following subsections.

¹ Auto trip cost assumes approximately 160 miles of vehicular travel between Fort Wayne and Chicago at 2017 the IRS standard mileage rate of 53.5 cents per mile.

The South Shore Line, operated by the Northern Indiana Commuter Transportation District (NICTD), is a commuter rail service with 18 stops between the South Bend Airport and downtown Chicago at Millennium Station. The service provides 21 daily trips Monday through Friday and 11 trips on Saturdays and Sundays. Except for Gary, the South Shore Line does not serve the communities along the Corridor. Therefore, the service requires unnecessary indirect travel to reach the stations located to the north of the Corridor. For example, travelers originating in Fort Wayne would need to drive over 90 miles north to access the South Shore Line station in South Bend and travelers originating in Lima would have to driver almost 3 hours to reach the same station. Warsaw to South Bend is approximately 50 miles or close to a 1-hour drive.

Amtrak's Capitol Limited (Washington, DC to Chicago) and Lake Shore Limited (New York City to Chicago) long distance routes each provide daily service between Chicago Union Station to destinations in the Eastern United States. The routes make daily stops in northern Indiana (South Bend, Waterloo and Elkhart) and northern Ohio (Bryan, Toledo and Sandusky).

The nearest access point to Amtrak from Fort Wayne is in Waterloo, IN, about 30 miles north of the city. From Lima, the nearest Amtrak station is about 60 miles north in Bryan, OH. Although Amtrak service is available, the service does not typically meet Corridor travel needs. The Amtrak routes are long-distance trains with schedules designed for travel to East Cost destinations that are not convenient for most Corridor-based business and personal trips.

Additionally, the railroad corridor used by Amtrak in northern Indiana is a heavily used freight line with limited capacity for additional trains. The capacity constrained railroad corridor impacts Amtrak's reliability. For example, Amtrak's on-time performance between June 2016 and June 2017 was 43.4 percent for the Capitol Limited and 49.2 percent for the Lake Shore Limited. The lack of reliability on these Amtrak services negatively impacts consumer confidence especially for Corridor-based travel needs, resulting in travelers using more reliable transportation when arrival times matter.

The addition of passenger rail service along the Corridor would provide a new transportation option for many of the communities along the Corridor that are not currently served by passenger rail and for the smaller communities along the Corridor that have limited bus and airline options. The new passenger rail service would provide intown service that avoids travel time spent on indirect travel and would avoid using heavily traveled freight corridors that impact passenger rail service reliability.

2.2.2 Highway system congestion and reliability concerns

To reach Chicago from the communities along the Corridor, the most direct highway route is US 30 between Lima, OH and Valparaiso, IN, IN-49 between Valparaiso and Woodville, IN and I-90 between Woodville and downtown Chicago. This route provides a critical link to Chicago for many of the small and mid-sized communities in Indiana and Ohio that are not directly served by the interstate system.

Travel along the US 30/IN-49/I-90 corridor is prone to unreliable travel times. A car trip from Lima to Chicago with a 9 a.m. departure time can range anywhere from 3 hours and 50 minutes to 5 hours and 20 minutes, according to Google Maps. Depending on the service alternative ultimately selected for the Project, the run times estimated for the proposed passenger rail service could be less than 4 hours for a 79-mph service and under three hours for a 110-mph service. These run times would provide competitive travel times when compared to the automobile. Additionally, the passenger rail service would not be impacted by factors that lead to unreliable travel times for highway travel including inclement weather conditions; traffic impediments along US 30 from at-grade cross access; and congestion along capacity

constrained routes in Lake County, IN and the Chicago metropolitan area. These factors are discussed in more detail in the following subsections.

Inclement Weather

Winter weather conditions add to the unpredictable nature of highway travel in this Corridor. Traffic backups and slow travel are frequent during inclement weather conditions, which can occur for several months of the year between November and March and are difficult to predict. These events not only increase travel times, but can also at a minimum create a stressful driving experience or lead to traffic incidents with property damage, injuries or fatalities. Also, inclement weather may make some travelers postpone or cancel travel plans altogether, resulting in reduced business productivity or missed personal activities. Train corridors are more weather resilient to severe winter weather because frequent train use of rail tracks keeps snow and ice from building up.

Traffic Impediments along US 30

US 30 in Indiana and Ohio is prone to slow traffic movements due to several at-grade intersections and traffic conflict points along the route. An inventory of US 30 in Indiana found that over 360 impediments to freeway conversion are present including 36 intersections, 33 stoplights and 209 driveway cuts (Appian, Inc., 2017). These impediments are only likely to increase traffic problems over time. Average annual daily traffic already reaches over 30,000 vehicles in some locations between Fort Wayne and Valparaiso, and traffic is expected to increase by more than 30 percent in 2035 (Northwestern Indiana Regional Planning Commission, 2017). The Indiana Blue Ribbon Panel on Transportation Infrastructure identified US 30 between Valparaiso and Fort Wayne as a state priority project, but currently no state funding has been committed to convert the highway to a limited access freeway (Blue Ribbon Panel on Transportation Infrastructure, 2014).

Traffic Congestion in Lake County and Chicago

Figure 3 shows roadway congestion maps for Northwest Indiana (Lake, Porter and LaPorte counties). According to the Northern Indiana Regional Planning Commission, the worst roadway congestion in the region is in Lake County on the east-west expressways and arterials. These areas are landlocked with little room for roadway expansion and require investments in alternative modes of transportation to address travel demand. (Northwest Indiana Regional Planning Commission, 2011) By 2040, the congestion is only expected to get worse with many of the highways in Lake County experiencing very congested conditions and traffic backups for longer periods of the day.

The I-90 corridor into downtown Chicago is also very congested and carries a very high volume of traffic with an annual average daily traffic value of over 250,000 vehicles (Chicago Metropolitan Agency for Planning, 2016). According to the Chicago Metropolitan Agency for Planning (CMAP) 2016 Quarterly Congestion Report, some of the interstate segments leading to downtown Chicago experience more than 6 congested hours per weekday with some segments reaching more than10 congested hours per weekday. This means congestion lasts beyond the normal morning and afternoon peak travel hours. Also, according to the CMAP Quarterly Congestion Report, the most intense congestion on the I-90 corridor occurs mostly in the outbound direction during the PM peak and inbound direction during the AM peak (Chicago Metropolitan Agency for Planning, 2017).

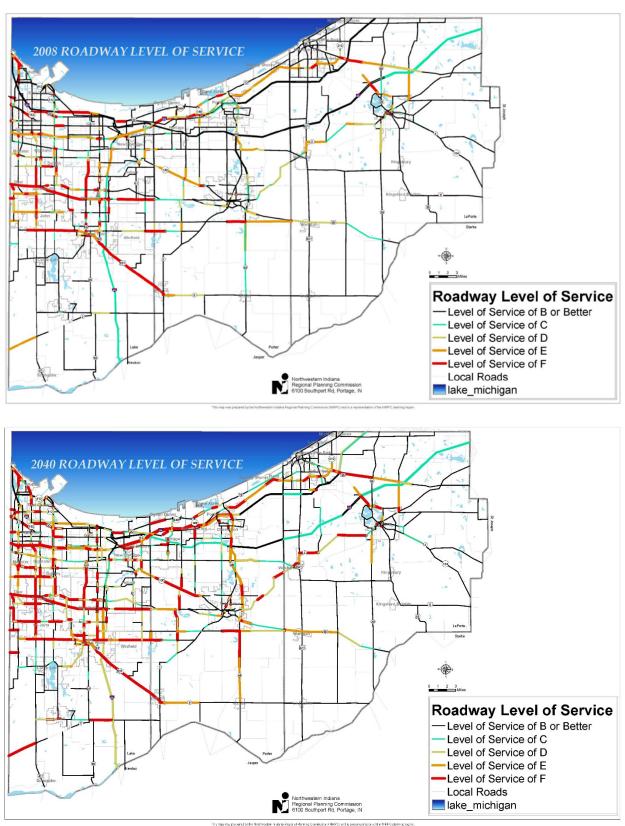


Figure 3: Northwest Indiana Roadway Congestion, 2008 and 2040



2.2.3 Population and employment growth will increase travel demand and place greater pressure on existing transportation modes

Corridor-wide socioeconomic trends indicate the Corridor is experiencing an increase in population and employment that will place greater pressure on existing modes of transportation. **Table 1** shows current and projected population, employment, and income for the Corridor's travel market area. In 2015, the Corridor travel market area had a population of 11.8 million and contained nearly 6.9 million jobs. In 2040, population is projected to be 14.5 million and employment is projected to be over 9 million, a 23 percent and 31 percent increase, respectively. Per capita income is projected to increase to nearly \$70,000 in 2040, a 48 percent increase from 2015.

			2015-2040	
Data	2015	2040	Difference	Percent increase
Population	11,849,797	14,539,898	2,690,101	23%
Employment	6,887,638	9,007,576	2,119,938	31%
Per Capita Income (2015\$)	47,194	69,966	22,772	48%

Table 1: Base and Projected Socioeconomic Data for the Corridor Travel Market Area

Source: Transportation Economics & Management Systems (TEMS), Inc., 2017

Note: The travel market area encompasses a 142-zone system for the Corridor. Data for the travel market area is based on census tract and local MPO traffic analysis zones.

In 2015, the total annual intercity trips in the Corridor travel market area were estimated to be 54 million (TEMS, 2017). The auto mode dominated the travel market with nearly 98 percent of the market share. The Corridor travel demand is projected to increase to 70.1 million trips by 2035 because of anticipated population, employment and income growth (TEMS, 2017). The auto mode is expected to continue to dominate with over 95 percent of the travel market.

The increasing travel demand and heavy reliance on auto travel in the Corridor will continue to place greater pressure on highway infrastructure. This will create more congestion and further diminish the reliability of highway travel times especially in capacity constrained areas of the Corridor like Lake County and Chicago. As a result, passenger rail will offer an increasing time advantage over auto and bus travel markets that rely upon highway infrastructure and are affected by increasing congestion and travel times.

2.2.4 More transportation choices are needed to support the region's economic competitiveness and facilitate its economic development goals

The current travel challenges (discussed previously) along the Corridor impact the economic competitiveness of the small and mid-sized communities, businesses and educational facilities along the Corridor and make it more difficult for the region to achieve its long-term economic development goals.

The proposed passenger rail Project would make it easier to attract more people and workers to the region by better connecting Fort Wayne and the smaller communities along the Corridor to Chicago and its economic, cultural and recreational assets. For instance, living and working in a small town would be more desirable if a short car trip to a train station could conveniently and reliably bring people to downtown Chicago in less than three hours. Plus, the train trip would minimize uncertainties with auto travel times due to congestion, road construction or inclement weather, and it would allow travelers to be productive while traveling. Furthermore, the

passenger rail service would allow people from metro Chicago to conveniently access tourist activities and events in the communities along the Corridor. For example, the convention center and other tourist activities in the Fort Wayne/Allen County area hosted 5.8 million visitors that generated over \$576 million in spending in 2013 (Indiana Office of Tourism Development, 2015). Although over half of the tourist trips come from within Indiana, 9 percent come from Ohio and 8 percent come from Illinois. (Indiana Office of Tourism Development, 2015).

Economic Competitiveness

The Corridor is home to several significant industries that would benefit from improved connectivity along the Corridor and to Chicago. For example, the Warsaw-based orthopedic industry is home to over 30 orthopedic device manufacturing, supply, and technical service companies (Parsons Brinckerhoff, 2011). The medical device business cluster in Warsaw generates over \$17 billion of annual revenue and employs nearly 7,000 workers in Kosciusko County, IN. According to OrthoWorx, Inc., the orthopedic cluster is one of the most concentrated centers of medical device economic activity in the United States and represents 50 percent of the global orthopedic market for total joint replacement, making Warsaw the "Orthopedic Capital of the World."

An economic impact study of Midwest high-speed rail service, completed on behalf of OrthoWorx, Inc., for the orthopedic industry in Warsaw included a survey of industry representatives (Parsons Brinckerhoff, 2011). The industry representatives said passenger rail service would make Warsaw more attractive and it would help recruit and retain highly trained professionals by connecting Warsaw to the cultural and business opportunities in Chicago. They also stated passenger rail would improve business efficiencies and worker productivity by allowing workers to more easily get to Chicago where many industry conferences, meetings and activities are held.

Another significant industry and employer along the Corridor is Steel Dynamics, Inc. (SDI) located in Columbia City, IN. SDI is one of the largest domestic steel producers and metals recyclers in the United States, with \$8.8 billion of annual revenues and 7,700 employees based in the U.S. SDI is a significant provider of rail products in the United States and is Amtrak's main U.S. rail provider. Like the orthopedic industry in Warsaw, SDI would be able to access the proposed passenger rail service in Warsaw and benefit from improved accessibility to the Chicago region.

The Fort Wayne area is a center of commerce along the Corridor with a strong manufacturing base and long-standing insurance sector. Fort Wayne has a vibrant downtown with offices and residential living options and it provides many cultural, recreational and entertainment destinations. Since 2005, downtown Fort Wayne has seen over \$273 million of new public and private investment and over \$720 million of additional investment is planned over the next 20 years (Economic Development Downtown, 2017). Passenger rail service will improve downtown to downtown access and help to support Fort Wayne's economy.

Allen County Ohio contains the city of Lima, Ohio, which is the largest metropolitan area in west central Ohio. In 2010, Allen County had a population of 106,331. Population is expected to decline to 100,650 by 2040, representing a 0.2 percent annual decline. Employment in Allen County was 63,802 in 2010 and is projected to increase to 80,431 by 2040, a 26 percent increase. Allen County has a strong manufacturing base, accounting for nearly 20 percent of the employment in the county (Future iQ Partners, 2015). The county maintains a presence of global firms such as Ford, Proctor-Gamble and Potash. Increasing Lima's transportation access is very important to sustain its population and employment since Lima and Allen County have an aging workforce.

Furthermore, 13 higher educational facilities are present in Indiana and Ohio near the Corridor including Purdue University-Northwest, Valparaiso University, Grace College, Indiana University, Purdue University Fort Wayne, Indiana Tech and Ohio Northern University. Passenger rail would provide a convenient and affordable travel option for universities and colleges since many students do not have a car. Also, family and friends could use the service to visit students.

Economic Development Goals

By improving the attractiveness of the region, passenger rail service would support the region's economic development goals. Through the Indiana Regional Cities Initiative, the Northeast Indiana Regional Partnership that includes Fort Wayne and the 11-county region, developed the Road to One Million Plan. This plan sets forth a bold vision for growing the region's population from 789,015 today to 1 million residents (Northeast Indiana Regional Partnership, 2015). The plan is meant to facilitate quality of life and connectivity improvements that will help the region attract and retain its labor force.

Current demographic trends indicate the Northeast Indiana economy will be impacted by retiring Baby Boomers and lagging growth among the Millennial generation. Under current trends, Northeast Indiana's labor force will shrink by 18,000 workers and its school age population will remain stagnant (Northeast Indiana Regional Partnership, 2015). If these current trends are not addressed, the region's gross domestic product is expected to shrink and wages will stagnate. As a result, the Northeast Indiana region must attract a younger and more educated workforce to sustain and grow its economy.

Research on the Millennial generation, those born between 1981 and 1996, is showing that this generation has a strong preference for travel mode alternatives and urban places. According to the American Public Transportation Association (APTA) study, Millennials and Mobility, nearly 70 percent of Millennials use multiple travel options several times or more per week (APTA, 2013). Forces such as technological advancements and economic conditions give Millennials a tendency for urban lifestyles where multiple transportation options and public transportation are available. For these reasons, communities that attract Millennials tend to have a multitude of transportation choices (APTA, 2013). Further evidence of this trend is the declining driver's license rates, particularly for teenagers. In 1978, about three-quarters of 17-year-olds in the U.S. had a driver's license. As of 2014, only 49 percent of the nation's 17-year-olds had their driver's license (USDOT, 2014).

The Road to One Million Plan recognizes that downtown vibrancy and access to alternative transportation modes are critical to achieving its population and work force goals. A passenger rail service would make the communities along the Corridor more economically competitive in comparison to the corridors without passenger rail. Consistent with national trends, the Corridor stakeholders, including local officials and businesses see establishing passenger rail service as one part of a regional strategy to serve the existing communities, grow its population, attract workers and realize their long term economic development goals.

3 BIBLIOGRAPHY

Appian, Inc. (2017). Improvements Needed for US 30 Freeway.

- APTA. (2013). Millenials & Mobility: Understandign the Millenial Midset.
- Blue Ribbon Panel on Transportation Infrastructure. (2014). Blue Ribbon Panel on Transportation Infrastructure.
- Chicago Metropolitan Agency for Planning. (2014, July). *Go To 2040 Update Appendix: Socioeconomic Forecast Update Overview.* Retrieved from CMAp.
- Chicago Metropolitan Agency for Planning. (2016). *Expressway Atlas: Annual Average Daily Traffic on Northeastern Illinois Expressways.*
- Chicago Metropolitan Agency for Planning. (2017, 7 20). 2016 Quarterly Congestion Report 2016 Q1. Retrieved from CMAP GIS:

http://cmapgis.maps.arcgis.com/apps/MapSeries/index.html?appid=bff407ff13b54bf2a7c 6324ba67f376e

Economic Development Downtown. (2017, July). Retrieved from Greater Fort Wayne Inc. : www.greaterfortwayneinc.com

Future iQ Partners. (2015). Regional Asset Inventory and Readiness Analysis.

- Greyhound. (2017, August). Book a Trip. Retrieved from Greyhound: www.greyhound.com
- Indiana Office of Tourism Development. (2015). *Economic Impact of Tourism in Allen County, Indiana*.
- Michiana Area Council of Governments. (2014). 2040 Transportation Plan: Michiana on the Move.
- Northeast Indiana Regional Partnership. (2015). The Road to One Million.
- Northeastern Indiana Regional Coordinating Council. (2013). 2035 Transportation Plan.
- Northwest Indiana Regional Planning Commission. (2011). Northwest Indiana's Congestion Management Process.
- Northwestern Indiana Regional Planning Commission. (2011). 2040 Comprehensive Regional Plan.
- Northwestern Indiana Regional Planning Commission. (2017). US 30 AADT.
- OrthoWorx and Kelley School of Business. (2011). The Economic Impact of Kosciusko County's Orthopedics Industry.
- Parsons Brinckerhoff. (2011). Economic Impacts of Midwest High Speed Rail on the Orthopedics Industry of Warsaw, Indiana.
- STATS Indiana. (2017, July 19). *Population Projections*. Retrieved from STATSINDIANA: http://www.stats.indiana.edu/topic/projections.asp
- TEMS. (2013). Northern Indiana/Ohio Passenger Rail Corridor Feasibility Study and Business Plan.
- TEMS. (2017). Chicago-Fort Wayne-Lima Pasenger Rail Corridor Study Preliminary Forecasts.

U.S. Census Bureau. (2015). 2015 County Business Patterns.

USDOT. (2014). Highway Statistics, Distribution of Licensed Drivers.

USDOT. (2016). USDOT Origin-Destination Survey and USDOT T100 database. Data Base Products, Inc.