

2021

Indiana State Rail Plan

July 2021





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1 Role of Rail in Indiana

1.1 Purpose and Content

Indiana's railroads (Table 1-1) play a significant role in shaping the economic prosperity and quality of life for all Indiana residents. Each week, hundreds of trainloads of materials and ingredients arrive in Indiana to feed the steelmaking, automotive, aluminum, food and beverage, and other industries that keep Indiana residents employed. On their journey, they'll pass other trains that originated in Indiana carrying raw materials such as corn and stone products, as well as products manufactured in Indiana – from cans of tomato paste to new cars and trucks – destined to locations across North America. Other trains carrying truck trailers and shipping containers move in every direction across the state – each train keeping up to 200 or more trucks off Indiana highways, reducing road congestion and improving traffic safety. Commuter trains transport residents of Northwest Indiana to and from their jobs, while intercity passenger trains on four different routes provide options for travelers making business or personal trips.

Indiana is one of the few places in the United States that manufactures railroad locomotives. The high-horsepower diesel locomotives built by Progress Rail in Muncie can be found leading freight trains across the country, featuring the latest Tier 4 emission-reducing technology, making them some of the cleanest diesel locomotives in the United States. The engines also contain the newest industry safety features, such as Positive Train Control and Crash Energy Management technology, and sophisticated diagnostic systems to monitor performance.

Indiana's location at the crossroads of several major rail lines gives the state a significant economic advantage, providing direct pathways for Indiana products and materials to reach markets throughout North America. (Indianapolis was the first U.S. city whose growth was dependent entirely on railroads.) The state's three biggest railroads (the Class I freight railroads CSX Transportation, Canadian National Railway, and Norfolk Southern Railway) have main lines in Indiana that link multiple consuming and manufacturing regions, including routes from the U.S. Midwest to the Northeast and Mid-Atlantic, routes from the Midwest to the Southern U.S., and from Chicago to Eastern Canada. To efficiently move this traffic, giant railroad terminals in Elkhart, Gary, and Indianapolis sort thousands of freight cars each day arriving from across the Eastern U.S., and then build outbound trains to send the cars onward to their destinations.



Table 1-1 – Railroads in Indiana

3	CLASS I FREIGHT RAILROADS – Track Owner	CN	Canadian National Railway
		CSXT	CSX Transportation
		NS	Norfolk Southern Railway
1	CLASS II FREIGHT RAILROAD – Regional Railroad	INRD	Indiana Rail Road Company
38	CLASS III FREIGHT RAILROADS – Short line Railroads	BLR	BEE Line Railroad
		CIND	Central Railroad Company of Indiana
		CERA	Central Railroad Company of Indianapolis
		CKIN	Chesapeake & Indiana Railroad
		CFE	Chicago, Fort Wayne & Eastern Railroad
		CSS	Chicago South Shore & South Bend Railroad
		CAPA	City of Auburn Port Authority
		DREI	Decatur & Eastern Illinois Railroad
		DCRR	Dubois County Railroad
		EWR	Elkhart & Western Railroad Co.
		EVWR	Evansville Western Railway
		FC	Fulton County Railroad
		GDLK	Grand Elk Railroad
		HOS	Hoosier Southern Railroad (Perry County Port Authority)
		IERR	Indiana Eastern Railroad LLC
		IN	Indiana Northeastern Railroad
		IORY	Indiana & Ohio Railway Company
		ISRR	Indiana Southern Railroad
		KBSR	Kankakee, Beaverville & Southern Railroad
		KR	Kokomo Railroad
		LIRC	Louisville & Indiana Railroad Company
		CMPA	Madison Railroad (City of Madison Port Authority)
		OVR	Ohio Valley Railroad Company
		SIND	Southern Indiana Railway, Inc.
		TPW	Toledo, Peoria & Western Railway
		BFT	Big Four Terminal Railroad, LLC
		CNUR	C & NC Railroad, LLC
		CEIW	Central Indiana & Western Railroad
		ICRK	Indian Creek Railroad
		IHB	Indiana Harbor Belt Railroad
		ISW	Indiana Southwestern Railway Co.
		KTR	Kendallville Terminal Railway Co.
		LNAL	Lucas Oil Rail Lines
		MGRI	MG Rail, Inc.
		MSO	Michigan Southern Railroad Co. (dba Napoleon, Defiance & Western Railway)
		VVRR	Vermilion Valley Railroad
		WBCR	Wabash Central Railroad
		WSRY	Winamac Southern Railway
1	INTERCITY PASSENGER RAILROAD	AMTK	Amtrak
1	COMMUTER RAILROAD	NICTD	Northern Indiana Commuter Transportation District
5	TOURIST RAILROADS	IRRM	French Lick Scenic Railway (Indiana Railway Museum Railroad)
		HVRM	Hoosier Valley Railroad Museum
		HHPA	Nickel Plate Heritage Railroad (Hoosier Heritage Port Authority)
		ORSR	Ohio River Scenic Railway
		WVRI	Whitewater Valley Railroad

CLASS I FREIGHT RAILROADS – TRACKAGE RIGHTS ONLY: Canadian Pacific (CPRS) and Union Pacific (UP)



Indiana also has 38 short line, or Class III railroads, which provide critical first-mile and last-mile rail transportation and customer-focused service to hundreds of rail-dependent manufacturing facilities, grain elevators, industrial parks, and other local employers. In addition, rail-served ports located on Lake Michigan and the Ohio River offer even more ways for Indiana companies to keep transportation costs low and compete in national and global markets.

The Rail Programs Office of the Indiana Department of Transportation (INDOT) has long recognized the importance of railroads in the state. INDOT, on its own or working with public and private partners, has helped fund critical projects to maintain and improve rail service in the state. INDOT sponsors an annual grant program that rehabilitates and upgrades vital freight rail infrastructure for short line railroads and port authorities. INDOT also provides annual funding for the Northern Indiana Commuter Transportation District (NICTD), the operator of the South Shore Line commuter rail line, and invests heavily in highway-rail grade crossing enhancements to improve safety for motorists and rail operators.

INDOT's Rail Programs Office also looks for creative solutions to help further its mission of preserving and developing freight and passenger corridors throughout Indiana. INDOT has managed or supported rail projects that have received more than \$100 million in federal grant award funding since 2009. INDOT also was a pioneer in the adoption of alternative service delivery methods for state supported passenger trains, in order to lower the federally imposed cost burden for maintaining its regional passenger service. Although short-lived, the program has reinvigorated INDOT to begin the long-term planning for new passenger rail services optimized for Indiana travel markets. To further improve safety, INDOT launched an innovative state grant program in 2018, called Local TRAX, designed to enhance and eliminate rail-highway intersections with local roadways. Recognizing the program's value, all three of Indiana's Class I freight railroads have contributed private matching funds to assist with project implementation.

INDOT will continue to think creatively and support freight and passenger rail transportation in the state. The Indiana State Rail Plan provides a glimpse of the many different ways railroads improve the lives of Indiana residents today, but also looks forward, to the projects and initiatives that will allow Indiana, and its railroads, to continue to prosper in the future.

This State Rail Plan has been developed in accordance with the federal requirements of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA), as amended by the Fixing America's Surface Transportation Act of 2015 (FAST Act) and the September 2013 State Rail Plan Guidance provided by the Federal Railroad Administration (FRA). In addition, the rail plan describes Indiana's goals and vision for railroad transportation in the state, and specific projects and strategies supported by INDOT to help achieve that vision. Projects included in a state rail plan are also better positioned and qualified for future federal funding. INDOT also actively encouraged participation from the public, municipal agencies, and the railroads of Indiana in the development of the 2021 Indiana State Rail Plan, setting the stage for a shared vision of improvement, innovation, and success.



The plan consists of eight chapters that present the topics and programs prescribed by FRA guidelines.

- **Chapter 1** discusses the role of rail in the state’s transportation system, and the authorizations in place that permit Indiana’s state and local governments to support rail.
- **Chapter 2** describes Indiana’s rail network, and the freight and passenger rail operators that serve the state.
- **Chapter 3** discusses the environmental and economic impacts of rail transportation in Indiana.
- **Chapter 4** discusses the trends and forecasts that will impact the rail network in the future.
- **Chapter 5** identifies passenger rail needs and opportunities, along with improvements and initiatives that have been proposed to address the needs and opportunities.
- **Chapter 6** discusses freight rail needs and opportunities, and potential investments and improvements.
- **Chapter 7** presents INDOT’s vision, goals, and objectives for the rail system over the next 20 years, summarizes rail projects that have been identified to help meet that vision, describes available funding for those projects, and potential impacts of proposed projects, if completed.
- **Chapter 8** summarizes the public and stakeholder outreach efforts undertaken to develop the Plan.

1.2 Multimodal Transportation System Goals

INDOT recently published its 2018 – 2045 Long Range Transportation Plan.¹ One of the plan’s goals is Multimodal Mobility; it aims to “maximize the performance of our transportation system, ensuring efficient movement of people, goods, and regional connectivity by enhancing access to different modes of transportation.” Multimodal Mobility contains rail-relevant objectives, including:

- Enhance Multimodal Connections
- Reduce Bottlenecks
- Plan for the Future
- Enhanced System Reliability

These objectives are relevant for Indiana’s future as they contribute to improve the performance of the rail system, to provide more opportunities for Indiana businesses and travelers to use rail, which could provide a cost-effective way to ship products long distances, reach new markets, or travel conveniently. By encouraging investments in rail and modal connectivity, Indiana businesses will have

¹ Indiana Department of Transportation. 2045 INDOT Long-Range Transportation Plan. Retrieved from: <https://www.in.gov/indot/3714.htm>



more options for shipping and receiving products reliably and cost-effectively and be able to access new markets and supply chains.

In the same vein, goals from Governor Eric Holcomb's 2017 plan "Elevating Indiana to the Next Level" contributes to a resilient Indiana, in part thanks to an efficient and effective state rail system that provides jobs to people and an attractive environment for business to settle. Parts of his five-point plan that are relevant to rail include:

- **Cultivate a Strong and Diverse Economy by Growing Indiana as a Magnet for Jobs:** We will manage our finances with the discipline that we've shown for the past 12 years. We will grow our 21st century economy by investing in and nurturing entrepreneurship, innovation, and technology. We will invest \$1 billion over the next 10 years to make Indiana the capital of innovation and entrepreneurship.
- **Deliver Great Government Service:** Hoosiers deserve to know that their tax dollars are being used responsibly and efficiently. We are setting goals to provide the best service that Hoosiers expect and deserve. Agency leaders will be held accountable for the programs and services we provide.

This State Rail Plan also proposes a set of rail-specific vision, goals, and objectives, detailed in Chapter 7.

1.3 Role of Freight Rail in the Indiana Transportation Network

In 1937 Indiana adopted the motto "Crossroads of America," referring to Indiana's central location, as well as to the highways, railroads, and other transportation infrastructure that connect Indiana to the rest of the U.S. Indiana businesses still benefit from a robust transportation infrastructure across all modes, including an important component of the U.S. rail network. By most metrics used to assess rail access and activity, Indiana is among the more rail-intensive states in the U.S. For example, in 2017, according to the Association of American Railroads, Indiana was ranked as follows:

- 4th in the number of freight railroads
- 11th in total rail mileage
- 5th in tonnage originated
- 6th in tonnage carried
- 4th in carloads carried
- 9th in rail employment and wages ²
- 3rd in coal tons originated and 4th in coal tons terminated ³

² Association of American Railroads. 2017 State Rankings. Retrieved from: <https://www.aar.org/wp-content/uploads/2019/05/AAR-State-Rankings-2017.pdf>

³ Association of American Railroads. The Rail Transportation of Coal, Vol. 20, May 2018.



Freight rail in Indiana, as in other states is used primarily for long-distance freight moves. Rail is typically slower, but less expensive and cleaner relative to competing modes, such as trucking.

Madison Railroad Freight Train Transporting Hopper Cars



Source: Madison Railroad

Table 1-2 displays rail's modal share of tonnage from the Freight Analysis Framework (FAF-4). As shown, for shipments of coal, comprising both shipments of thermal coal to power plants for electricity generation and shipments of metallurgical coal to steel mills for steelmaking, rail has a high modal share. Rail also has a significant market share for long-haul shipments of other commodities, such as agricultural products, food products, and chemicals. Rail plays a key role in linking Indiana with markets both domestic and foreign. For those industries whose supply chains permit the usage of rail, freight rail service can provide significant cost savings. The availability of rail also adds to the capacity of the transportation system, so that rail can relieve capacity and reduce maintenance costs on the Indiana roadway system.



Table 1-2 – 2018 Tonnage Rail Modal Share by Distance and Commodity Group for Shipments to and from Indiana

Commodity	0–99 Miles	100–249 Miles	250–499 Miles	500–999 Miles	1,000 + Miles
Agricultural Products	7%	3%	5%	44%	29%
Food Products, Including Animal Feed	2%	8%	16%	41%	59%
Stone and other Non-Metallic Mineral Products	0%	1%	6%	42%	40%
Metallic Ores	0%	55%	39%	25%	50%
Coal	0%	24%	21%	33%	97%
Chemicals	2%	8%	19%	43%	79%
Plastics and Rubber	0%	7%	9%	10%	41%
Wood, Paper, Forest Products	0%	3%	8%	18%	28%
Metals and Metal Products	20%	26%	16%	17%	19%
Vehicles and Transportation Equipment	0%	2%	4%	15%	16%
Other	0%	3%	5%	3%	5%

Source: HDR Analysis of FHWA Freight Analysis Framework (FAF) Version 4

1.4 Freight Rail Services, Initiatives, and Plans

Freight rail-related initiatives and efforts are underway or have been recently completed in Indiana including those listed below.

1.4.1 Federally Funded

Safer Railroad Crossings in Nappanee Project – The City of Nappanee was awarded \$1.4 million in Fiscal Year (FY) 2020 Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program funding to improve seven highway-rail grade crossings along a CSXT rail corridor averaging 44 trains per day. In addition to physical improvements, the project includes a safety program to educate drivers about local safety issues related to crossings, and suicide prevention outreach materials along a 2.5-mile rail corridor.⁴

⁴ Federal Railroad Administration. FRA's Consolidated Rail Infrastructure and Safety Improvements Program FY2020 Project Listing. Retrieved from: https://railroads.dot.gov/sites/fra.dot.gov/files/2020-09/FY2020CRISI%20Project%20Listing%20for%20Press%20Release_FINAL.pdf



Graham Creek Bridge Replacement Project – The City of Madison Port Authority was awarded \$4.2 million in FY 2018 CRISI Program funding to replace the Madison Railroad’s constrained railroad bridge crossing Graham Creek, approximately 17 miles north of Madison, Indiana. The original bridge, built in 1880, will be replaced with a new structure capable of handling modern railcars that can accommodate maximum allowable gross weight of 286,000 pounds.⁵ Indiana contributed \$300,000 in FY 2019 and \$250,000 in FY 2020 through its Industrial Rail Service Fund (see Section 1.4.2).

South Shore Rail Rehabilitation Project – The Chicago South Shore & South Bend Railroad was awarded \$2.8 million in FY 2018 CRISI Program funding to upgrade 7.5 miles of its freight-only line between Michigan City and La Porte, Indiana. The project will replace existing 90-pound jointed rail that is more than 100 years old with modern, heavier 115-pound continuous welded rail and upgrade the Highway 35 highway-rail grade crossing in Michigan City.⁶

South Shore PTC Implementation – The Chicago South Shore & South Bend Railroad was awarded \$700,000 in FY 2018 CRISI Program funding for the installation of I-ETMS Positive Train Control equipment. The grant will fund equipment installation, testing and training costs, as well as interoperability between CSS freight operations and the host railroad, NICTD, along a route from Chicago, Illinois, to South Bend, Indiana.⁷

Louisville & Indiana Mobile Device Emergency Responder App – The Louisville & Indiana Railroad was awarded \$0.3 million in FY 2018 CRISI Program funding to develop a geographic information system mobile application linking railroad dispatch and first responders, aiding communication and response during railroad incidents.⁸

Wabash River Rail Bridge Revitalization – Indiana Department of Transportation was awarded \$10 million in TIGER IX funding in 2018 to help replace two deteriorating freight rail approaches to the Wabash River Bridge, which provides a rail link from energy and agricultural suppliers in Illinois to

⁵ Federal Railroad Administration. Federal Railroad Administration Announces More Than \$326 Million in Grants to Support Railroad Infrastructure, June 12, 2019. Retrieved from: <https://railroads.dot.gov/newsroom/federal-railroad-administration-announces-more-326-million-grants-support-railroad>

⁶ Ibid.

⁷ Federal Railroad Administration. FRA Awards More Than \$200 Million for PTC Implementation, August 24, 2018. Retrieved from: <https://cms7.fra.dot.gov/newsroom/fra-awards-more-200-million-ptc-implementation>

⁸ Federal Railroad Administration. Federal Railroad Administration Announces More Than \$326 Million in Grants to Support Railroad Infrastructure, June 12, 2019. Retrieved from: <https://railroads.dot.gov/newsroom/federal-railroad-administration-announces-more-326-million-grants-support-railroad>



river ports in Mount Vernon, Indiana. The \$20 million project will replace two bridge approaches that, if left unimproved, would threaten the mobility of goods in the region by severing a key connector line from rural southern Indiana to four major Class I railroads.⁹

1.4.2 State Funded

Industrial Rail Service Fund – Between fiscal years 2015 and 2020, Indiana awarded grants totaling \$14.7 million in short line/regional railroad infrastructure. This included 59 projects with an average state contribution of \$250,000 per project, in addition to private railroad matching. The total value of these projects was almost \$35 million.

Approximately 60 percent of these projects included the rehabilitation of track structures, such as replacement of ties, ballast, and rail. About 13 percent of the funds were used for bridge construction and another 11 percent for bridge repairs. Approximately nine percent of funds were used for projects improving access to serve customers, such as rail spurs or sidings.

In addition to INDOT IRSF funding, the Indiana Economic Development Corporation also provides funding for infrastructure improvements that promote economic development, including rail projects. In February 2020, the corporation announced it would award \$1 million from its Industrial Development Grant Fund to LaPorte County, Indiana, to help construct a rail connection to the Kingsbury Industrial Park. The \$6 million project will establish a rail link between the industrial park and a CSXT line that runs at the south edge of the property, introducing rail service to industrial park tenants. CSXT has designated the industrial park as a “Select Site,” further encouraging prospective rail shippers to locate there.¹⁰ Eventually, the industrial park hopes to extend the rail spur north and establish a connection with a nearby Canadian National Railway line to provide dual railroad access.

Railroad Grade Crossing Fund – Between fiscal years 2015 and 2020, Indiana invested \$4.3 million in safety improvements at highway-rail grade crossings. This included 173 projects with an average state contribution of about \$25,000 per project. Approximately 40 percent of the funding was used for improved signage and pavement markings, while 37 percent was used for improvements to crossing surfaces. The remainder was used for lighting upgrades to LED, crossing closures, median barriers, and other measures.

1.4.3 Privately Funded

Louisville & Indiana Railroad (LIRC), CSXT Joint Infrastructure Upgrade – In return for a permanent easement from LIRC allowing CSXT to operate over the 106-mile rail line between

⁹ U.S. Department of Transportation. TIGER IX Awards, 2017. Retrieved from:

https://www.transportation.gov/sites/dot.gov/files/docs/policy-initiatives/tiger/306331/t9-fact-sheets_0.pdf

¹⁰ Progressive Railroading, Indiana panel awards grant to connect industrial park to CSX line, November 2, 2020.

Retrieved from: <https://www.progressiverailroading.com/csx-transportation/news/Indiana-panel-awards-grant-to-connect-industrial-park-to-CSX-line--59706>



Indianapolis and Louisville, Kentucky, in 2015, CSXT committed to investing \$100 million to install new rail, upgrade the rail bed structure, and improve bridges on the line. The project reached completion by Q3 2020 allowing an increase of train speeds and the number of daily trains. This line provides additional operational flexibility to CSXT operations in the region, allowing CSXT to avoid congestion in Cincinnati, Ohio.

CSXT Track Reactivation in New Albany – As part of a \$39.5 million plant expansion announced in 2020, Northwest Ordinance Distilling of New Albany, Indiana, is investing \$2 million to reactivate a segment of idled CSXT track through the city. The track, once part of CSXT’s former Monon Railroad main line, had been dormant for approximately five years. More than 3 miles of the rail line will be placed back in service. The line’s reactivation will enable CSXT freight trains from Louisville, Kentucky, to operate via a connection at the north end of the Kentucky & Indiana Bridge spanning the Ohio River to the Northwest Ordinance Distilling bottling plant, providing low-cost rail service for inbound and outbound shipments of materials. The plant, which bottles distilled spirits for its parent company Sazerac, had only been served by truck since its opening in 2018.¹¹

Investments to Improve Rail Service to Burns Harbor Steel Mill – In 2019, steelmaker ArcelorMittal announced it would make more than \$300 million in upgrades and improvements to its mill at Burns Harbor, Indiana.¹² Rail service to the plant is provided by the Chicago South Shore & South Bend Railroad, which has made its own series of investments in the past three years to improve service to the facility. These include the lease of 100 covered steel coil cars in 2017 to support the plant’s shipping needs, and the construction in 2019 of a second delivery track 2,000 feet long with a storage capacity of 32 cars. The new track enables South Shore to stage cars for delivery when needed by the mill and reduce conflicts with rail switching operations in the steel mill’s yard.¹³

Rail-Served Bulk Terminal on Indiana Northeastern – Indiana Northeastern Railroad gained a new customer in June 2020 with the opening of SEE Terminal’s bulk fertilizer distribution terminal near South Milford. SEE Terminal invested \$3 million in the new facility, including construction of a rail spur, to replace an outdated terminal in the Chicago area. Indiana’s IRSF partially funded the siding to the fertilizer plant in FY 2020 for \$250,000. The new storage and distribution terminal receives bulk

¹¹ Inside Indiana Business, Sazerac Subsidiary Details New Albany Expansion, May 27, updated May 28, 2020. Retrieved from: <https://www.insideindianabusiness.com/story/42180861/sazerac-subsidiary-details-new-albany-expansion>

¹² Scrap Monster, ArcelorMittal Invests \$162 Million in Burns Harbor, Indiana Steel Mill Expansion, May 16, 2019. Retrieved from: <https://www.scrapmonster.com/news/arcelormittal-invests-162-million-in-burns-harbor-indiana-steel-mill-expansion/1/71411>

¹³ Anacostia, CSS: New flexibility at Burns Harbor, March 8, 2019. Retrieved from: <https://www.anacostia.com/news/css-new-flexibility-burns-harbor>



shipments by rail and enables trucks to deliver customized orders to farm supply companies throughout the region.¹⁴

Rail-Truck Transload in Jeffersonville – The Louisville & Indiana Railroad in June 2019 completed a joint project with rail customer Great Western Malting Company to construct a rail-to-truck transload facility for malted grain at the railroad’s yard in Jeffersonville, Indiana. The 33-railcar facility includes a 90-foot-long covered, open-ended unloading structure with a concrete pad and pit beneath a single track that allows conveyors to load trucks. Inbound rail shipments of malted grain are transferred to trucks to serve the distillery and brewing industries in the northern Kentucky and southern Indiana region. Great Western built the facility under a long-term lease of space from the Louisville & Indiana Railroad.¹⁵

1.5 Role of Passenger Rail in Indiana Transportation Network

Two types of passenger rail operate in Indiana and are contained in this State Rail Plan.

- **Commuter rail** is rail service whose primary purpose is to move commuters who make the same trip on workdays to a center city, with most ridership happening during peak travel times.
- **Intercity passenger rail** is passenger rail transportation that connects metropolitan areas.

NICTD’s South Shore Line commuter rail line serves Lake, Porter, La Porte, and St. Joseph Counties in Indiana and Chicago, Illinois. According to a 2014 publication by NICTD and the Northwest Indiana Regional Development Authority, South Shore Line trains carry about 9 percent of Lake County-to-Chicago commuters and 12 percent of Porter County-to-Chicago commuters.¹⁶ Mileage avoided by South Shore Line riders accounts for an equivalent of 7.8 percent of peak-hour Lake County-to-Chicago vehicle-miles traveled and 3.7 percent of peak-hour Porter County-to-Chicago vehicle-miles traveled. By removing a percentage of commuters from northwestern Indiana roadways during times of peak demand, NICTD reduces road congestion and improves mobility. It also ties the economy of northwest Indiana to Chicago, which improves economic efficiency.

Amtrak provides intercity passenger rail service in Indiana through a combination of long-distance trains that provide overnight service between Chicago and cities on the East Coast, and regional short-distance trains that link Chicago with the Detroit/Pontiac region. The modal share of passenger

¹⁴ The News Sun, New terminal nears completion outside of South Milford, May 19, 2020. Retrieved from: https://www.kpcnews.com/newssun/article_79e2b911-1699-5f41-8eb5-299ebb4130a5.html

¹⁵ Great Western Malting, LIRC, Great Western Malting Co. to open Jeffersonville Rail/Truck Transload Facility, June 6, 2019. Retrieved from: <https://www.greatwesternmalting.com/lirc-great-western-malting-co-to-open-jeffersonville-rail-truck-transload-facility>

¹⁶ Northern Indiana Commuter Transportation District, Northwest Indiana Regional Development Authority, *West Lake Corridor and South Shore Line Strategic Planning Investments: A Regional Benefits Analysis*, January 27, 2014.



rail in Indiana is relatively small. Hoosiers generated about 470 million long-distance trips (trips over 50 minutes with free flow traffic) per year in 2017¹⁷, of which approximately 3.5 million were on South Shore Line trains¹⁸ and approximately 145,000 were on Amtrak trains arriving or leaving stations in Indiana.¹⁹ Therefore, passenger and commuter rail has at most 0.78 percent of the long-distance trip market in Indiana.

Part of the reason for passenger rail's low share of the Indiana long-distance travel market is that not all Hoosiers have access to intercity passenger rail service, particularly in the southern part of the state. Indiana residents are served by 25 Amtrak intercity passenger rail stations, 11 of which are within Indiana and the remaining within Illinois, Michigan, and Ohio within 30 miles of the Indiana state border. Figure 1-1 shows these Amtrak stations.

¹⁷ Federal Highway Administration. 2017 National Household Travel Survey. Retrieved from: <https://nhts.ornl.gov/tables09/ae/work/Job102950.html>

¹⁸ Northern Indiana Commuter Transportation District. Monthly Ridership and 2017 Year End Performance Report, December 2017. Retrieved from: <https://www.shore-line.org/pdfs/NICTD-Performance-Report-2017.pdf>

¹⁹ Amtrak. Amtrak Fact Sheet Fiscal Year 2017 – State of Indiana. Retrieved from: <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/statefactsheets/INDIANA17.pdf>

Figure 1-1 – Amtrak Stations within a 30 Mile Radius of Indiana



Source: HDR Analysis of 2014–2018 American Community Survey Data

According to the 2014–2018 American Community Survey (ACS) five-year estimates, 1.9 million Indiana residents live in a census block group within a 10-mile radius of an Amtrak station, constituting 28.6 percent of the statewide population. This includes Indiana residents who are within 10 miles of an Amtrak station that is located outside the Indiana state border.

According to the same survey, 4.4 million residents (or 65.7 percent of the statewide population) reside within 30 miles of an Amtrak station. This includes Indiana residents who are within 30 miles of an Amtrak station located outside the Indiana state border. These are shown in Table 1-3.

Table 1-3 – Indiana Population Served by Intercity Passenger Rail

Radius	Population	Percentage of State
10 miles	1,899,791	28.6%
30 miles	4,362,605	65.7%

Source: HDR Analysis of American Community Survey 2014-2018

The availability of intercity passenger rail improves the livability of Indiana communities by increasing the number of transportation options and by providing a transportation option that some prefer over highway or airline travel.

Passengers Boarding a Wolverine Service Train by Amtrak





1.6 Passenger Rail Services, Initiatives and Plans

1.6.1 Passenger Rail Services

Amtrak provides intercity passenger services. Table 1-4 displays a summary of Amtrak’s routes with stations in Indiana.

Table 1-4 – Intercity Passenger Routes Serving Stations in Indiana

Route	Service Frequency (each direction)	End Point Stations	Stations in Indiana
Cardinal	One train three days per week in each direction	New York, NY and Chicago, IL	Connersville, Indianapolis, Crawfordsville, Lafayette, Rensselaer, Dyer
Capitol Limited	One train daily in each direction	Washington, DC and Chicago, IL	Waterloo, Elkhart, South Bend
Lake Shore Limited	One train daily in each direction with cars to/from Boston and New York coming together at Albany-Rensselaer, NY	Boston, MA, New York, NY and Chicago, IL	Waterloo, Elkhart, South Bend
Wolverine	Three trains daily in each direction, but only one westbound and two eastbound trains stop at Michigan City, and two westbound and one eastbound trains stop at Hammond-Whiting	Chicago, IL and Pontiac, MI	Michigan City, Hammond-Whiting

Source: Amtrak

In addition, several Amtrak routes pass through northwest Indiana without making any station stops in the state. Indiana residents who would like to use these services could access stations in Michigan or Illinois. These routes are summarized in Table 1-5.

Table 1-5 – Intercity Passenger Routes Passing through Indiana without Stations in the State

Route	Service Frequency (each direction)	End Point Stations	Stations in Indiana
Blue Water	One train daily in each direction	Chicago, IL and Port Huron, MI	Does not stop in Indiana. Closest stations are Chicago, IL; New Buffalo, MI; and Niles, MI
Pere Marquette	One train daily in each direction	Chicago, IL and Grand Rapids, MI	Does not stop in Indiana. Closest stations are Chicago, IL and St. Joseph-Benton Harbor, MI

Source: Amtrak



NICTD provides commuter rail service within Indiana, operating 43 trains each weekday on the 90-mile South Shore Line route between Millennium Station in downtown Chicago and South Bend International Airport.

1.6.2 Intercity Passenger Rail Initiatives and Plans

Hoosier State Corridor Conceptual Infrastructure Plan – With the passage of PRIIA, Congress voted to end federal support for Amtrak intercity passenger trains operating on routes of less than 750 miles effective October 2013. As a result, states such as Indiana were required to provide the operating funding needed to sustain their regional passenger rail services, including the *Hoosier State*, which ran between Indianapolis and Chicago. The State of Indiana partnered with local governments along the train’s 196-mile route to fund the *Hoosier State* service’s operating and capital costs not covered by ticket revenue. The *Hoosier State* was one of two intercity passenger trains serving a rail corridor between Indianapolis and Chicago, with intermediate stops at Crawfordsville, Lafayette, Rensselaer, and Dyer. Three days per week, service between Indianapolis and Chicago is provided by Amtrak’s overnight *Cardinal* train from New York, New York. On days when the *Cardinal* did not operate, the *Hoosier State* ran on the same schedule as the *Cardinal*, enabling the Indianapolis-Chicago corridor to have consistent daily round-trip passenger rail service. However, the train’s schedule is tailored to the long-distance travel market rather than short-distance riders from Indiana, a factor that contributed to the state’s decision not to renew its support of the service in the 2020-2021 budget. The *Hoosier State* made its final run on June 30, 2019, the last day of the state’s fiscal year.

Since the end of service, INDOT has been taking steps to explore the feasibility of reinstating intercity passenger rail service in the *Hoosier State* corridor, at travel times and frequencies better suited to the Indianapolis-Chicago travel market. In 2019, INDOT released an *Intercity Passenger Rail Conceptual Infrastructure Plan*²⁰ for the corridor, which identified potential infrastructure improvements on the rail corridor between Indianapolis and Munster, Indiana, under two conceptual service plans that considered multiple daily departures in each direction and upgrades to existing track speeds.

Northern Indiana/Ohio Passenger Rail Corridor – The Northern Indiana Passenger Rail Association has commissioned the *Northern Indiana/Ohio Passenger Rail Corridor Study and Business Plan* to investigate the feasibility of passenger rail service on a rail corridor between Chicago and Columbus, Ohio, which would serve the Indiana communities of Gary, Valparaiso, Plymouth, Warsaw, and Fort Wayne. This organization has completed several pre-NEPA (National Environmental Policy Act) planning studies and activities, including developing the project’s purpose and need statement,

²⁰ Indiana Department of Transportation. Intercity Passenger Rail Conceptual Infrastructure Plan, Hoosier State Passenger Rail, November 2019. Retrieved from:
<https://www.in.gov/indot/files/HoosierStateConceptualInfrastructurePlan.pdf>



preparing a route and service level alternatives analysis, and completing conceptual engineering. The results from these early planning activities will be carried forward into an environmental review process, which is required under NEPA for potential future Federal funding.

Midwest Regional Rail Planning Study – The FRA is leading the Midwest Regional Rail Planning Study—a multi-state planning effort to develop a comprehensive vision and governance model for an integrated regional rail network to advance passenger rail planning, procurement, and operations in the Midwest. The study builds on current rail planning efforts within the states of Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. These 12 states along with the Midwest Interstate Passenger Rail Commission (MIPRC) comprise the lead stakeholders and provide intensive feedback and guidance on study efforts.

The study began in 2016 with initial efforts to evaluate potential markets, corridors, ridership, and costs as well as governance and/or institutional options that would ultimately feed into the creation of the Midwest Regional Rail Plan. The study utilizes the FRA’s CONceptual NETwork Connections Tool (CONNECT), which serves as the analytical foundation for FRA-led regional passenger rail planning studies and is expected to be completed in 2021. The Midwest Regional Rail Planning Study is part of other national efforts exploring the potential for a high-performance passenger rail network including the Southwest Multi-State Rail Planning Study completed in 2014, and the Southeast Regional Rail Planning Study anticipated to be published in 2021.

1.6.3 Commuter Rail Initiatives and Plans

NICTD Expansions and Improvements – The following investments and improvements are planned and being studied for the South Shore Line commuter rail service operated by NICTD:

- Add a second main track and improve stations along 26 miles of the line between Gary and Michigan City as part of the Double Track Northwest Indiana Project
- Relocate track in Michigan City, so that it is no longer embedded street running track but instead on a separate right-of-way with a new station
- Increase capacity through the area shared with Metra south of Millennium Station in Chicago
- Construct the 8-mile West Lake Corridor Extension from Hammond to Dyer, which would use electric powered trains on a new right-of-way that would be elevated in some locations and at ground level for others, serving four new stations
- Realign track into South Bend Airport, so that trains travel straight into the airport, rather than over the existing route
- Order new cars

1.7 Institutional Governance Structure of Rail in Indiana

1.7.1 INDOT’s Legislative Rail Authority and Organization

For the purposes of this State Rail Plan, INDOT serves as both the State Rail Transportation Authority and State Rail Plan Approval Authority, which are responsible for preparing and approving this State



Rail Plan, respectively. Designation of these authorities is required for the FRA's state rail planning purposes.

INDOT gained legislative authority to fund and plan rail projects in 1975 as part of the Indiana State Rail Preservation Law. This legislation under I.C. 8-3-1.5 gave INDOT the authority to administer and coordinate a state rail plan, seek federal financial assistance for rail service continuation, employ sufficiently trained and qualified personnel, maintain adequate programs to ensure proper disbursement of federal funds, provide financial assistance to operate and maintain railroads, buy and sell railroad properties if need be, and cooperate with other states regarding the sale or purchase of railroad properties.²¹

In 1979, the Indiana legislature also established the Commuter Rail Service Fund to fund commuter rail within the state. In 1981, the legislature added the Electric Rail Service Fund, which was established to fund any commuter rail transportation performed by electrically powered railroads.²² NICTD is currently the only commuter rail service provider in Indiana and is the only agency that qualifies for either of these funds. The Commuter Rail Service Fund receives 0.123 percent of the state's general sales and use tax, while the Electric Rail Service Fund is generated from property tax on a railroad company's distributable property that provides service within a commuter transportation district. NICTD also receives a 12.34 percent set aside from the Indiana Public Mass Transportation Fund, which is authorized each year by the legislature to receive revenue from the state's general fund.

In 1979, the Indiana legislature authorized the Railroad Grade Crossing Fund (I.C. 8-6-7.7-6.1) to improve the safety at highway-rail grade crossings by providing funding for highway-rail grade crossing safety improvements throughout the state. Additional funding for grade crossing safety improvements and separations was announced in 2018 through the Local TRAX program, a one-time program that provided more than \$121 million in matching grant funds.

In 1982, the Indiana legislature (I.C. 8-3-1.7) established the Industrial Rail Service Fund (IRSF) to provide loans to railroads in order to purchase or rehabilitate property. In 1995, the legislature modified the program to give INDOT the authority to grant funds to railroads owned by port authorities to rehabilitate railroad infrastructure. In 1997, the authority for INDOT to grant money was extended to Class II (regional) and Class III (short line) railroads.

INDOT was authorized to provide highway funding for *Hoosier State* service between October 2013, when Indiana's cost-sharing responsibility for the service under PRIIA took effect, and July 2015. Under the tax amnesty program of 2015, INDOT was allowed to be reimbursed up to \$6 million (\$3

²¹ IN Code § 8-3-1.5. Retrieved from: <http://statecodesfiles.justia.com/indiana/2016/title-8/article-3/chapter-1.5/chapter-1.5.pdf>

²² Ibid.



million per year) to fund the operation of *Hoosier State* service during the FY 2016–2017 biennium budget. When that budget period ended, the Indiana legislature included a line item in its FY 2018–2019 budget to continue funding the train service, providing \$3 million per year, supplemented by additional funds from communities along the route. When the state chose not to renew its funding of *Hoosier State* service in the FY 2020–2021 biennium budget that began on July 1, 2019, the train made its final run on June 30.

Table 1-6 displays average annual funding over the past five years for the state programs described above. INDOT funding for *Hoosier State* service does not reflect the full five years, since INDOT stopped funding the service in 2019. Funding levels for the IRSF and the Railroad Grade Crossing Fund reflect averages by Indiana fiscal year, which ends June 30 each year, whereas NICTD funding reflects averages by calendar year.

Table 1-6 – Indiana State Funding by Program

Program	Average State Funding Fiscal Year 2015 - 2020
Industrial Rail Service Fund	\$2.6 million
Railroad Grade Crossing Fund	\$0.7 million
Hoosier State Service Support*	\$3.0 million
NICTD Support**	\$22.2 million
Local TRAX***	\$121.0 million

*INDOT funding of *Hoosier State* service ended June 30, 2019

**Represents average by calendar year

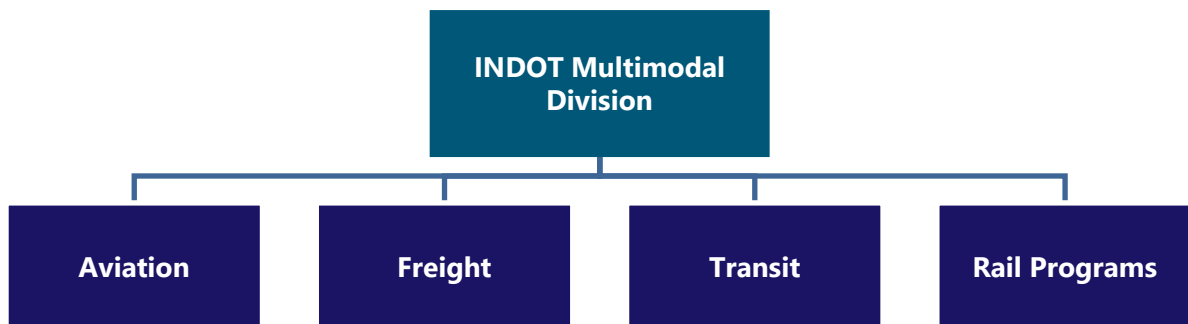
***Represents a one-time grant program in the FY 2018–2019 budget

Freight and intercity passenger rail programs authorized under Indiana’s legislative authority are administered by the INDOT Rail Programs Office, which is dedicated to preserving and developing freight and passenger corridors throughout the state of Indiana. The Rail Programs Office administers the Indiana IRSF and the Railroad Grade Crossing Fund programs, as well as enforces Indiana State Law in regard to highway-rail grade crossings. The Rail Programs Office performs rail planning and administers rail-related federal grants for which INDOT is the grantee.

The Rail Programs Office is the primary author of this State Rail Plan, but the project review committee also includes the Director of the Multimodal Division. Staff from the Freight Office and the Rail Programs Office work together on a number of initiatives, such as the 2018 State Freight Plan.

State financial assistance and involvement in the NICTD service is administered through the INDOT Office of Transit, which provides financial and technical assistance to transit systems across the state and administers millions of dollars in state and federal funds through grant programs. Both offices are part of INDOT’s Multimodal Division, the organization of which is displayed in Figure 1-2.

Figure 1-2 – Organization of the INDOT Multimodal Division



Several other offices within INDOT affect rail in Indiana as well. The federal highway-rail grade crossing safety improvement fund (commonly referred to as Section 130) is administered under the INDOT Office of Traffic Safety, which is part of the INDOT Division of Traffic Engineering. The Section 130 projects are managed by the INDOT Local Public Agency Programs, as well.

The INDOT Utilities and Railroads Division coordinates with utility or railroad companies wherever INDOT roadway projects or railroad improvement projects require project coordination and an agreement/contract between the two parties to complete the construction, such as grade crossing projects undertaken with Local TRAX or Section 130 funding.

1.7.2 Institutional Governance Structure of Rail Programs beyond INDOT

1.7.2.1 Other State Agencies

In addition to INDOT, several other state agencies play a role in funding rail improvements. The Indiana Economic Development Corporation’s Industrial Development Grant Fund assists municipalities and other entities with infrastructure improvements needed to serve proposed project sites. Among the infrastructure projects eligible for funding are the construction, extension, or completion of rail spurs and sidings. Potential projects are evaluated by, among other criteria, the extent to which they attract investment and employment to Indiana communities.

The Ports of Indiana was created by the Indiana General Assembly in 1961 to “promote the agricultural, industrial, and commercial development of the state and to provide for the general welfare by the construction and operation, in cooperation with the federal government, or otherwise, of a modern port.” It is a quasi-governmental entity. The Ports of Indiana owns and operates the port facilities and related properties at Burns Harbor, Jeffersonville, and Mount Vernon. Ports of Indiana is self-supporting in terms of operating funds and invests in rail at the port facilities.

1.7.2.2 Local and Regional Agencies

A range of local and regional government entities can support rail in Indiana, both through their own funding sources and by applying for federal funding. A number of organizations within Indiana play a coordinating role for transportation issues, including rail.



Metropolitan planning organizations (MPOs) play a coordinating role. There are 14 MPOs in Indiana. MPOs are required for metropolitan areas with over 50,000 inhabitants in order to receive certain types of federal highway and mass transit funding. MPOs prepare 20-year transportation plans and three- to five-year transportation improvement plans, as well as provide technical assistance for project planning and implementation. Through their planning processes, they cooperate with state and local jurisdictions, and rail projects are included among the projects with which MPOs may be involved. Several Indiana MPOs are responsible for jurisdictions that span across the state borders to towns and counties in adjoining states.

Fifteen regional councils are located in Indiana, covering most of the state. The Indiana legislature created these regional councils to perform economic development planning with funding from the U.S. Department of Commerce. Given rail's significant role in economic development, rail can be relevant to these organizations' activities.

The Indiana legislature created NICTD in 1980. It is governed by a Board of Trustees, with one board member from each of the Indiana counties served by the South Shore appointed by the Governor. The INDOT Commissioner is the board chair.

1.7.2.3 Multi-State Organizations

Indiana is also active in several interstate passenger rail organizations that allow multiple states to cooperate on regional issues or to address national issues that are common across states that support passenger rail.

Midwest Interstate Passenger Rail Commission – In 2000, the Midwest Interstate Passenger Rail Commission (MIPRC) formed to advocate for regional passenger rail improvements. The commission comprises state leaders in Indiana and across the other Midwestern states of Illinois, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, and Wisconsin. Indiana legislators serve on the commission as well as the governor's designee, the INDOT Commissioner who delegates the role to the Director of INDOT's Multimodal Division.

MIPRC leads a variety of activities to inform stakeholders, the public, and elected officials on current and future passenger rail projects in the region. This includes their annual meeting, which features site tours, presentations from U.S. DOT officials in Washington, D.C. involved in the development and funding of intercity passenger rail, and case studies of successful passenger rail implementation and expansion projects around the United States.

MIPRC also fulfills a role in advocating for existing Amtrak and passenger rail services. MIPRC is actively involved in keeping elected officials informed of state and federal passenger rail policies and legislation to promote a more efficient regional passenger rail network for the Midwest. MIPRC members made annual visits to Washington, D.C. in 2018 and 2019 to meet with representatives in Congress that hold positions on the House and Senate transportation committees, as well as officials at the U.S. Department of Transportation (U.S. DOT), FRA, and Amtrak.



To date, MIPRC's efforts have led to incremental corridor improvements in the Midwest—namely the Chicago to St. Louis and Chicago to Detroit/Pontiac corridors.²³

States for Passenger Rail Coalition – INDOT is a member of the States for Passenger Rail Coalition. The coalition's mission is to promote the development, implementation, and expansion of intercity passenger rail services with involvement and support from state governments. The coalition is comprised of representatives from state and regional departments of transportation and passenger rail authorities. The coalition provides a voice for state governments that support passenger rail and is recognized as the "go to" organization for national policy development by federal agencies and congressional staff (for committees of jurisdiction).

State Amtrak Intercity Passenger Rail Committee – The FAST Act authorized the State Amtrak Intercity Passenger Rail Committee, which is composed of state intercity passenger rail service sponsors, Amtrak, and the FRA. It provides a forum for resolving issues and progressing intercity passenger rail services. The committee is important to timely resolution of cost-sharing issues, and as a forum for policy review and coordination among the parties. Despite no longer offering *Hoosier State* service, INDOT is still represented on this committee as a non-voting member.

1.8 Public Funding and Financing of Rail Projects

The nature, availability, and sources of funding for rail depends upon the type of rail service. Freight railroads within Indiana are generally private, for-profit businesses. The operating costs of freight rail services are mostly covered by shipper revenues for those services. By contrast, revenues from commuter rail and intercity passenger rail operations do not cover operating costs and must be subsidized.

Most capital costs on freight rail lines are privately funded. Railroads pay for capital maintenance, rolling stock, and system expansion projects. But freight railroads provide public benefits by diverting freight from highways and supporting economic development, so in some cases, capital projects of freight railroads are supported, at least partially, by the public sector, through public-private partnerships, or other methods. Capital projects to support commuter and intercity passenger rail are generally publicly funded.

Within Indiana, the public sector provides funds for improvements to highway-rail grade crossings, but railroads are responsible for maintaining these crossings, including maintaining crossing surfaces.

²³ Midwest Regional Rail System: Executive Report. September 2004. Retrieved from: <https://secure.in.gov/indot/files/MWRRS1.pdf>



1.8.1 State Rail Funding in Indiana

1.8.1.1 Industrial Rail Service Fund

The IRSF is intended to assist with infrastructure improvements for Class II (regional) and Class III (short line) railroads to help maintain and increase business shipping levels on these rail lines, and to assist with funding needed for track infrastructure improvements related to new business development on the line. Annual funding is approximately \$2.6 million. This fund, managed by INDOT, receives a percentage of the state sales tax, as mandated by I.C. 6-2.5-10-1(4). Revenue also comes through repayment of IRSF loans. The current maximum IRSF grant is \$250,000. Grants may not exceed 75 percent of the total cost of the project. The fund may also be used to pay operating expenses and for rail planning by INDOT. The fund receives 0.031 percent of the state sales tax.

1.8.1.2 Railroad Grade Crossing Fund

The Indiana legislature established the Railroad Grade Crossing Fund (RRGCF) (I.C. 8-6-7.7-6.1) to increase safety at highway-rail grade crossings. Local governments are eligible to apply for funding to enhance safety at rail-highway intersections through the RRGCF with a 100 percent reimbursement for materials up to \$45,000. Class II and Class III railroads and port authorities may also apply for RRGCF as well, however they are required to provide a 50 percent financial match for sight obstruction removal and grade crossing surfacing projects.

While the state legislation allows RRGCF monies to be used for both passive and active (train-activated) crossings, the amount of available funds effectively limits the type of improvements at crossings to passive (signage, sight obstruction removal and resurfacing projects).

The INDOT Rail Programs Office also offers the Crossing Closure Program as part of the RRGCF. A community can currently receive between \$20,000 and \$50,000 to close a crossing, based in part on the FRA-predicted accident rate²⁴ for the crossing. Funding for the RRGCF continues at \$750,000 for the total fund each fiscal year.

1.8.1.3 Indiana Commuter Rail Funding

In 2019, NICTD received \$31.6 million in funds from the state of Indiana a little over half of which are for operating expenses and the rest for capital expenses. In 2019, state funds covered about 34 percent of the service operating expense. State funding for NICTD includes the following:

- The Public Mass Transportation Fund receives funding from the state's general fund, which is distributed to transit systems each year using a performance-based formula based on each system's operating expenses, passenger trips, and vehicle-miles. NICTD, being the only rail

²⁴ Federal Railroad Administration, Office of Safety Analysis. The accident rate can be computed online at <http://safetydata.fra.dot.gov/webaps>



transit system in the state, receives a set-aside percentage (12.34 percent) of the fund's total amount available. The funding can be used for both capital and operating expenses. NICTD received about \$5.4 million from this fund in 2020.

- The Electric Rail Service Fund receives revenue from property taxes on a railroad company's distributable property²⁵ that provides service within a commuter transportation district established under I.C. 8-5-15. In 2020, NICTD received about \$208,000 from this fund.
- The Commuter Rail Service Fund/Sales Tax is available to commuter transportation districts established under I.C. 8-2-15, for use to maintain, improve, and operate commuter rail service. This fund receives 0.123 percent of the state's general sales and use tax revenue. In addition, state revenues from the indefinite-situs tax on distributable property of railroad car companies (I.C. 6-1.1-8 35) also are directed to the Commuter Rail Service Fund for the exclusive use of debt financing for long-term capital needs. NICTD received about \$23.9 million from the Commuter Rail Service Fund in 2020.

1.8.1.4 Local TRAX

In 2018, INDOT launched a new one-time grant program to improve safety at highway-rail grade crossings. The Local TRAX program provides state matching funds to Indiana cities, towns, and counties for up to 80 percent of the land acquisition and construction cost of high-priority railroad grade separations, grade crossing closures, or other safety enhancements at railroad intersections with local roads. Funding for Local TRAX was authorized by the Indiana General Assembly through changes in HEA 1002 effective July 2017, enabling the Indiana Finance Authority to issue and distribute bonds for the program. In 2018, INDOT selected 12 projects that would receive a combined \$121 million in Local TRAX program funding. In addition to matching funds from county and local agencies, Norfolk Southern, CSX, and Canadian National agreed to contribute a combined amount of nearly \$10 million to implement projects selected by the program.²⁶

²⁵ State of Indiana, State Assessed Distributable Property – Because utilities and railroads typically cross township and county lines, the Indiana Department of Local Government Finance is charged with assessing the value of utilities and railroads in Indiana. The department values a company's entire enterprise statewide and then distributes the assessed value to each county in which the company operates. The distribution is allocated based on a percentage of the company's total operation in the county by township/taxing district. <http://www.in.gov/dlgf/2486.htm>

²⁶ Indiana Department of Transportation. Gov. Holcomb, INDOT Award More Than \$121 million in State Matching Funds for Rail Crossing Safety Improvements Through Local Trax Grants, December 13, 2018. Retrieved from: <https://content.govdelivery.com/accounts/INDOT/bulletins/2224b0b>



1.8.1.5 Other Indiana Funding Sources

1.8.1.5.1 INDIANA ECONOMIC DEVELOPMENT CORPORATION

The Indiana Economic Development Corporation (IEDC) offers an array of business tax incentives, corporate tax credits, and economic development programs for companies creating new jobs and investment in Indiana. One of IEDC's grant programs is the Industrial Development Grant Fund, which can help with off-site infrastructure improvements. This and other IEDC programs (including a tax-exempt bond program) can be used to fund or finance rail improvements that benefit the state and local economy.

1.8.1.5.2 INDIANA DESTINATION DEVELOPMENT CORPORATION

The Indiana Destination Development Corporation (IDCC) offers matching grants to communities and nonprofit agencies in Indiana for projects that improve the local economy by promoting travel and tourism to the area. Past beneficiaries have included groups involved with tourist train operations and historic preservation. In 2018, the Indiana Railway Museum (Figure 1-3) received \$250,000 in Destination Development grant funding to restore two historic, first-class passenger cars for use on its tourist train operation between French Lick and Jasper. The project will enable the museum to increase seating capacity on its trains and provide regular dinner train service as well as corporate and private dinner train charters, and also accommodate more visitors during special events such as the Polar Express Train.²⁷

²⁷ Indiana Destination Development Corporation. Destination Development Grants awarded to Indiana Railway Museum and City of Jeffersonville, March 2, 2018. Retrieved from: <https://www.visitindianatourism.com/node/357>

Figure 1-3 – Indiana Railway Museum's French Lick Scenic Railway



Source: French Lick Scenic Railway

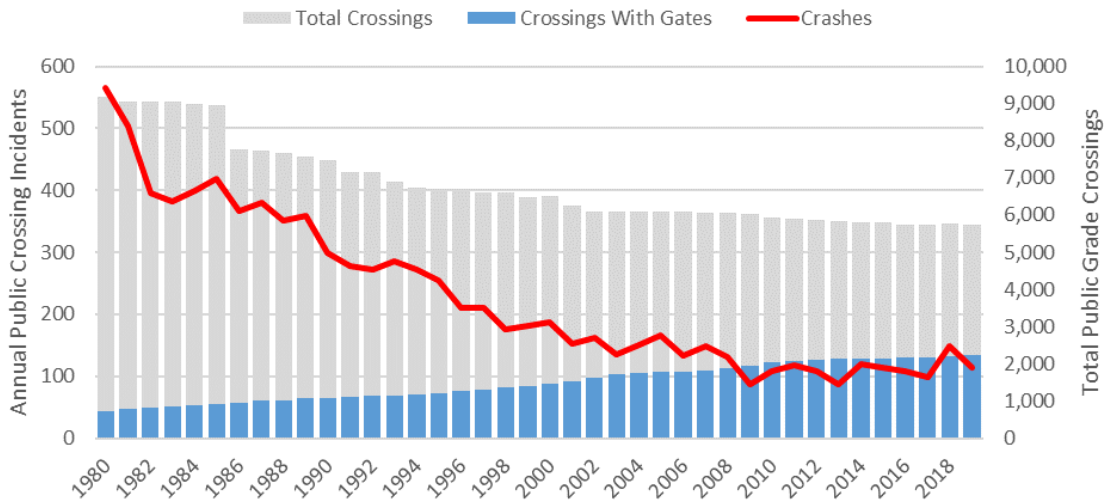
1.8.2 Federal Funding Sources

Existing federal funding programs as of Fall 2020, are identified and described in this section. The FAST Act was set to expire at the end of Federal FY 2020, and as of this date a new surface transportation bill has not yet been proposed. A one-year continuing resolution was approved and will run through Sept 30, 2021.

1.8.2.1 Railway-Highway Crossings Program (Section 130)

The INDOT Office of Traffic Safety and the INDOT Local Public Agency Programs administer this federal-aid program, which is authorized by United States Code Title 23, Section 130. The goal of this fund, commonly referred to as Section 130, is to reduce the crash risk of the most hazardous public highway-rail grade crossings. Since 1975, the number of crashes at public crossings in Indiana has declined dramatically (see Figure 1-4 for data on 1980-2019).

Figure 1-4 – Incidents at Railroad Grade Crossings



Source: HDR Analysis of FRA Historic Grade Crossing Inventory Data

Section 130 funds are typically used to install train-activated warning bells, flashing light signals, overhead cantilevers, gates, and constant warning time circuitry at highway-rail grade crossings on the state and local highway system. Section 130 funds cannot be used at private crossings.

Typical highway-rail grade crossing upgrades using Section 130 funds fall into two categories:

- At crossings with passive protection (such as cross bucks and/or stop signs), a Section 130 safety project would install train-activated warning devices (e.g., warning bells, flashing light signals, overhead cantilevers with flashing light signals, gates, and constant warning time).
- At crossings with existing train-activated protection (such as flashing light signals and/or gates), a safety project would upgrade the existing signal equipment, add four-quadrant gates, install an overhead cantilever with flashing light signals, upgrade circuitry to add constant warning time, modernize adjacent highway traffic signals, add a median barrier (to prevent motorists from driving around lowered gates) or other enhancements and treatments to reduce crash risk at the rail-highway intersections.

The Section 130 Highway Rail Crossing Safety Program will pay 90 percent of the costs with the remaining 10 percent paid by the highway authority or the railroad. The number of Section 130 crossing upgrades in Indiana is roughly 20 crossings per year.

Each year INDOT considers crossings to upgrade from a short list of crossings considered priorities based on various safety factors. The process does not involve a “call for projects,” since the initial selection of higher-risk crossings is determined by a hazard index, a data-driven determination by INDOT. The hazard index considers the crossings’ characteristics, their accident history, and traffic volumes and types on the roadways and rail lines. The crossings with the highest hazard index are investigated in greater detail. The process incorporates inputs from local officials and highway



jurisdictions, railroads, and the public and also considers new development issues (such as changes of traffic patterns) other rail corridor and local roadway projects, and additional factors.

Seven criteria are applied by INDOT to decide which crossings to select for upgrades each year:

- Hazard index
- Type of improvement selected
- Type of protection already on corridor
- Type of development near the crossing
- Motorist expectancy about train movements
- Type of highway
- Public/local authority interest or comments on safety of the crossing

1.8.2.2 National Highway Freight Program (FAST Act section 1116; 23 USC 167)

The most recent transportation authorization bill—the 2015 FAST Act—included several new rail programs.

Funded at \$1.1 to \$1.5 billion annually for federal FY16 through FY20, the new National Highway Freight Program is intended to improve the efficient movement of freight on the National Highway Freight Network ²⁸, and support investment in infrastructure and operational improvements that strengthen economic competitiveness, reduce congestion, reduce the cost of freight transportation, and improve safety. While the program is focused on highway projects, up to 10 percent of a state's apportionment can be spent on rail, port, and intermodal projects.

Eligible projects include a wide range of activities, including but not limited to: planning, environmental review, environmental mitigation, acquisition of real property, acquisition of equipment, implementation of intelligent transportation systems, border security technology, resiliency projects, and construction of highway, rail, port, and intermodal projects, including railroad grade separations.

1.8.2.3 Better Utilizing Investments to Leverage Development (BUILD) Grant Program

BUILD Transportation grants are for planning and capital investments in surface transportation infrastructure and are to be awarded on a competitive basis for projects that will have a significant local or regional impact. Since 2018 BUILD funding can be used to support roads, bridges, transit,

²⁸ The FAST Act requires the establishment of a National Highway Freight Network, which will consist of the following components: The Primary Highway Freight System (PHFS); Critical Rural Freight Corridors; Critical Urban Freight Corridors; and those portions of the Interstate System that are not part of the PHFS. The FAST Act designates the PHFS and requires FHWA to redesignate it every five years. It also provides for designation of Critical Rural Freight Corridors and Critical Urban Freight Corridors. [23 USC 167(d)-(f)]



rail, ports or intermodal transportation. BUILD is the successor to the Transportation Investment Generating Economic Recovery (TIGER) grant program that existed from 2010 through 2017.

Projects for BUILD will be evaluated based on merit criteria that include safety, economic competitiveness, quality of life, environmental sustainability, state of good repair, innovation, and partnership. U.S. DOT intends to award 50 percent of BUILD Transportation grant funding to projects located in rural areas that deliver positive benefits for these communities, consistent with the Department's R.O.U.T.E.S. initiative.²⁹

U.S. DOT appropriated \$1 billion in FY 2020 discretionary grant funding. Projects in Indiana that were awarded BUILD funding have all been highway projects. TIGER grant funding has been successfully awarded to rail projects in Indiana. Demand for BUILD grant funding exceeds available funds.

1.8.2.4 Infrastructure for Rebuilding America (INFRA) Grant Program

INFRA is a grant program established by the FAST Act to provide funding for the Nationally Significant Freight and Highway Projects (NSFHP). INFRA is a competitive grant program similar to BUILD, but is focused specifically on freight: highway, rail, and intermodal projects of regional or national significance. Its four goals are:

- Support economic vitality on a national or regional level
- Utilization of non-federal funds for infrastructure
- Innovation in technology, project delivery, or financing
- Promoting accountability for performance outcomes for federal grant recipients

Funding has been authorized under the FAST Act through FY 2020. U.S. DOT intends to award \$900 million based on the 2020 application round. The INFRA program emphasizes the need to rebuild rural America and awarded 53 percent of available funds to rural projects consistent with the Department's R.O.U.T.E.S. initiative.

In 2017 U.S. DOT renamed the program from Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies (FASTLANE) to INFRA.

As with BUILD, INFRA is oversubscribed, with 173 applications requesting a total of \$7.4 billion.³⁰ No FASTLANE/INFRA funds have been awarded to Indiana projects since the Port of Indiana-Burns Harbor received a \$10 million grant from the FY 2017 small projects grant program to invest in rail improvements.

²⁹ Rural Opportunities to Use Transportation for Economic Success (R.O.U.T.E.S.) is a U.S. DOT initiative to address disparities in rural transportation infrastructure.

³⁰ Logistics Management. DOT announces new round of INFRA grant funding, June 22, 2020. Retrieved from: <https://www.logisticsmgmt.com/article/dot-announces-new-round-of-infra-grant-funding>



1.8.2.5 FAST Act FRA Programs

The FAST Act authorized \$2.2 billion over five years starting Federal FY 2016 for three new FRA competitive grant programs.

- **Consolidated Rail Infrastructure and Safety Improvements (Sec. 11301):** Goals are to improve the safety, efficiency, and reliability of passenger and freight rail systems. Eligible activities include a wide range of capital, regional and corridor planning, environmental analyses, research, workforce development, and training projects. Over \$1.1 billion was authorized over FY 2016–2020, with \$312 million appropriated to the program in FY 2020.
- **Federal-State Partnership for State of Good Repair (Sec. 11302):** This program is intended to reduce the state-of-good-repair backlog on publicly owned or Amtrak-owned infrastructure, equipment, and facilities. Eligible activities include capital projects to (1) replace existing assets in-kind or with assets that increase capacity or service levels, (2) ensure that service can be maintained while existing assets are brought into a state of good repair, (3) bring existing assets into a state of good repair. Approximately \$1.0 billion has been authorized FY 2016–2020 with \$291 million appropriated to the program in FY 2020.
- **Restoration and Enhancement Grants (Sec. 11303):** Created to provide operating assistance to initiate, restore, or enhance intercity passenger rail transportation. Grants are limited to three years of operating assistance per route and may not be renewed. Authorized at \$20 million annually through FY 2020. \$26 million was appropriated to the program in FY 2020.

1.8.2.6 Other FRA Competitive Discretionary Grant Programs

- **Railroad Trespassing Suicide Prevention Grant:** This program provides \$293,000 for targeted outreach campaigns to reduce the number of suicides that involve railroad trespassing. FRA will award funds to projects that achieve maximum benefits possible, thereby meeting, in part, several milestones in its National Strategy to Prevent Trespassing on Railroad Property Report to Congress. The program was authorized by the Consolidated Appropriations Act, 2019 and 2020.
- **Magnetic Levitation (Maglev) Deployment Grants:** The grant program made \$2 million available in FY 2020 to fund capital project costs and preconstruction planning activities for the deployment of magnetic levitation transportation projects. It was authorized under and funded in the Further Consolidated Appropriations Act, 2020.

1.8.2.7 Positive Train Control Implementation Grant Program

Section 3028 of the FAST Act authorized funding for implementation of Positive Train Control (PTC), at \$199 million for federal FY 2017. Selection criteria for this competitive grant program include safety as well as promoting economic competitiveness and enhancing quality of life and economic opportunity. A 20 percent local match is required. For FY 2016, the FRA awarded \$25 million in competitive grants for PTC implementation, \$197 million in FY 2017. For FY 2018, \$203 million in grants was given to 28 projects in 15 states, including two projects in Indiana. PTC implementation



grants have been provided to the commuter agency NICTD (\$8.1 million) and freight operator Chicago South Shore & South Bend Railroad (\$700,000) for implementation of PTC on NICTD's shared commuter/freight line between Chicago and South Bend.³¹ The program was a stand-alone program through 2017. In 2018 the PTC Systems Grant was issued under the CRISI Program. The FRA and Federal Transit Administration (FTA) instituted this program to help commuter and intercity passenger railroads meet the December 31, 2018 deadline to implement PTC systems. The grant program is no longer active.

1.8.2.8 Economic Development Administration Grants

The U.S. Economic Development Administration (EDA) offers grant and loan assistance programs to support local organizations in their economic development efforts.³² The EDA targets distressed communities with the following two grant programs:

- The Public Works program seeks to help distressed communities revitalize, expand, and upgrade their physical infrastructure to attract new industry or diversify the economy. It can also be used to purchase land to support the establishment or expansion of industrial or commercial enterprises.
- The Economic Adjustment Assistance program provides a wide range of technical, planning, and infrastructure assistance to regions experiencing adverse economic changes resulting from a steep decline in manufacturing employment, changes in trade patterns, major natural disasters, military base closures, or environmental changes and regulations.

Both programs fund rail projects. Most years, Indiana receives financial help from one or the other program, but not often in support of rail projects. In 2014, an EDA grant of \$1.6 million was used to upgrade a 25-mile rail line between Madison and North Vernon, increasing track weight capacity to a plastics company, and therefore creating and preserving jobs. In 2015 EDA awarded \$3 million to the city of Gary to construct critical road infrastructure to facilitate routing for commercial and light industrial transportation to the area's interstate, rail, and air distribution network. Although the project was also in support of shipping by rail, it was primarily a project aimed at road infrastructure and truck access.

1.8.2.9 Congestion Mitigation and Air Quality

The Federal Highway Administration's (FHWA) Congestion Mitigation and Air Quality (CMAQ) program provides a flexible funding source to state and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to

³¹ Federal Railroad Administration. FRA Awards More Than \$200 Million for PTC Implementation, August 24, 2018.

³² U.S. Economic Development Administration. EDA Programs. Retrieved from: <https://www.eda.gov/programs/eda-programs>



reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide or particulate matter (nonattainment areas), and for former nonattainment areas that are now in compliance, called maintenance areas.

A number of Indiana counties are in nonattainment status³³ for ozone or sulphur dioxide and are thus eligible to receive CMAQ funding for projects that reduce vehicular emissions.

The FAST Act authorized \$2.3–\$2.5 billion per year for this program from FY2016 through FY 2020. Funds may be used for both passenger and freight rail capital expenditures as long as the projects have an air quality benefit. Examples of CMAQ-funded freight rail projects include intermodal facilities, diesel engine retrofits, idle-reduction projects in rail yards, and rail track rehabilitation.

1.8.2.10 Pilot Program for Transit-Oriented Development Planning

This program administered by the FTA was established to support comprehensive planning projects that improve access to public transit.

FTA's Transit Oriented Development (TOD) Pilot Program was established under the Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2012 and amended by the FAST Act in 2015. The program is authorized through fiscal year 2020. The program provided \$19.5 million in Federal FY 2015, \$14.7 million in FY 2016 and \$16.6 million in FY 2018. In FY 2019, \$23 million was awarded to 23 organizations nationwide. NICTD received \$1.2 million funding to plan for TOD at existing commuter rail stations along the South Shore Line and proposed commuter rail stations on the West Lake Corridor.³⁴ NICTD was previously awarded a \$300,000 TOD planning grant from FTA in FY 2015 for stations along the West Lake Corridor. NICTD will supplement its FY 2019 grant funding with \$300,000 of additional funding. The planning work will be managed by the Northwest Indiana Regional Development Authority.³⁵

1.8.2.11 Capital Investment Grants Program

In January 2021 the FTA announced a \$173 million federal grant agreement with NICTD for the Double Track Northwest Indiana Project, which will improve transportation options in northwest Indiana, including residents traveling to downtown Chicago and South Bend International Airport.

³³ Indiana Department of Environmental Management, Office of Air Quality. Nonattainment Areas Map, September 16, 2020. Retrieved from: http://www.in.gov/idem/airquality/files/nonattainment_areas_map.pdf; Table of counties and pollutants, September 16, 2020. Retrieved from:

http://www.in.gov/idem/airquality/files/nonattainment_county_list.pdf

³⁴ Federal Transit Administration. Fiscal Year 2019 Transit-Oriented Development (TOD) Planning Projects, September 1, 2020. Retrieved from: <https://www.transit.dot.gov/grants/grant-programs/fiscal-year-2019-transit-oriented-development-tod-planning-projects>

³⁵ Chicago Tribune. Federal grants add \$1.2M for housing, business development near South Shore stations, June 12, 2020. Retrieved from: <http://www.chicagotribune.com/suburbs/post-tribune/ct-ptb-nictd-federal-grant-st-0615-20200612-vnikcbdarnd4hnq7olsqcq4vuu-story.html>



The total project cost is \$491 million with \$173 million in funding provided through FTA's Capital Investment Grants Program.³⁶

1.8.2.12 Federal Transit Administration Funding

NICTD receives federal funding from the FTA through the Section 5307 (Urbanized Area) formula grants, and Section 5337 (State of Good Repair) and Section 5309 (Fixed Guideway Modernization) federal programs that are used for transit capital projects.

1.8.3 Federal Financing Programs

In addition to grant funding, credit assistance can support freight rail improvement projects. Credit assistance can be in the form of loan guarantees, or can be direct loans with favorable terms, including low-interest rates, long payback periods, and/or payment schedules that begin after construction is completed. These financing alternatives can help to bridge the gap between project costs and project-related revenues.

1.8.3.1 Railroad Rehabilitation and Improvement Financing

The FRA's Railroad Rehabilitation and Improvement Financing (RRIF) program provides direct loans and loan guarantees to finance development of railroad infrastructure. The program is funded up to \$35 billion, with \$7 billion reserved for projects benefiting non-Class I railroads. This program is currently undersubscribed, with only \$6.3 billion in outstanding loans, approximately half to Class I railroads. The average approval period for the program is 13 months.³⁷

RRIF was re-authorized and expanded under the FAST Act in December 2015 to allow financing of TOD elements of passenger rail projects, and to shorten review times and provide more transparency in the process. The FAST Act also included provisions to speed up environmental reviews, which may also help increase the program's utilization.

To draw more interest for the program, RRIF Express aims to reduce the time and costs associated with securing loans to modernize aging freight rail infrastructure. RRIF Express is a pilot program by the Build America Bureau aimed at expedited, low cost loans for short line and regional railroads. Its application window was open from January 12 to June 15, 2020.

³⁶ Federal Transit Administration. U.S. Transportation Secretary Elaine L. Chao Announces \$173 Million Grant Agreement for Double Track Northwest Indiana Project, January 7, 2021. Retrieved from: <https://www.transit.dot.gov/about/news/us-transportation-secretary-elaine-l-chao-announces-173-million-grant-agreement-double>

³⁷ StreetsblogUSA. In Age of Budget Cuts, Why Are Billions of Federal Rail Dollars Going Unused?, February 18, 2011. Retrieved from: <http://usa.streetsblog.org/2011/02/18/in-age-of-s%C2%ADpending-cuts-why-are-billions-of-federal-rail-dollars-going-unused>



RRIF can be used for projects that:

- Acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings and shops, and installation of PTC systems
- Develop or establish new intermodal or railroad facilities
- Reimburse planning and design expenses relating to activities listed above
- Refinance outstanding debt incurred for the purposes listed above
- Finance transit-oriented development (credit assistance was only available until December 4, 2019)

Direct loans may be used to fund up to 100 percent of a railroad project with repayment periods of up to 35 years, and at favorable interest rates (possibly as low as the U.S. Treasury rate).

Eligible borrowers include railroads, state and local governments, government-sponsored authorities and corporations, joint ventures that include at least one railroad, and limited option freight shippers who intend to construct a new rail connection. The FRA will give priority to projects that provide public benefits, submitted by credit worthy applicants.

1.8.3.2 Transportation Infrastructure Finance and Innovation Act

The federal Transportation Infrastructure Finance and Innovation Act (TIFIA) is a broad-based credit program, providing federal credit assistance to a wide range of surface transportation projects of national or regional significance, including highway, transit, intercity passenger rail, some types of freight rail, intermodal freight transfer facilities, and port terminals. Eligible recipients include states, municipalities, public authorities, and private entities undertaking projects sponsored by public authorities.

TIFIA provides three types of financial assistance:

- Secured loans offering flexible repayment terms (e.g., loan payments delayed for a set number of months or years during the construction phase)
- Loan guarantees, which lend the full faith and credit of the U.S. government to loans provided by institutional investors such as pension funds
- Lines of credit, which are contingent sources of funding in the form of federal loans that may be drawn upon to supplement project revenues, if needed, during the first 10 years of project operations

TIFIA cannot provide lines of credit of more than 33 to 49 percent of a project. In addition, projects must be no more than 80 percent federally funded overall.



The closest qualified projects to Indiana receiving TIFIA credit assistance, that Hoosiers might benefit from, are located in Chicago and the Louisville metro area.³⁸

1.8.4 Local Funding of Rail Projects

Just as localities contribute to NICTD, county, MPO, and municipal funding is also available for freight rail improvements. Local funding for freight rail is typically used for economic development purposes that benefit the broader community. Often local funds are used in conjunction with state and federal economic development grants. Typical examples include contributing to the capital costs for the following:

- Construction of a rail spur to a planned or existing industrial facility
- Rail improvements to maintain/improve rail service (such as track rehabilitation), which boost the national or global competitiveness of local agricultural or manufacturing products
- Construction of transload facilities

Donations of public land for these purposes are also common. Michigan City has provided NICTD with land to accommodate the South Shore Line's new alignment, a parking garage, and a new station building.³⁹

1.8.5 Uncertainty in Rail Funding and Financing

Some of the Indiana state rail funding sources described previously are tied to revenue sources. For example, the IRSF receives money through 0.031 percent of the state sales tax. In these cases, short of a legislative change, one could always be reasonably confident that funding would be available year to year. However, in 2020 Indiana, like other U.S. states, saw a decline in economic activity and sales tax revenues as a result of the COVID-19 pandemic, which may impact public programs dependent on state taxes for funding in the future.

Other state programs receive money from the state's general fund. In this case, funding is contingent upon the legislature appropriating funds during the biennial budgeting process, which creates some uncertainty as to funding availability and funding levels. INDOT's current flexibility in directing funds toward rail projects outside of established rail programs is extremely limited.

The greatest funding uncertainty is with federal sources. While the Section 130 Railway-Highway Crossing Program is a formula grant program, nearly all other federal programs that can be used to fund rail projects are competitive. The ability to program federally funded projects over specific time periods is contingent on assumed success in winning grants. Even when funding levels are established by multi-year authorizing legislation, the level at which Congress will appropriate funds to these programs is not known until completion of the annual budgeting process.

³⁸ U.S. Department of Transportation. Transportation Infrastructure Finance and Innovation Act (TIFIA), December 3, 2020. Retrieved from: <https://www.transportation.gov/buildamerica/financing/tifia>

³⁹ Agreement between Michigan City and NICTD. November 1, 2016. Retrieved from: https://www.doubletrack-nwi.com/images/NICTD_Agreement_Exhibits.pdf



2 Indiana’s Existing Rail System

2.1 Description and Inventory

As crossroads of America, the Indiana rail network ranks 11th in the nation for total rail mileage and consists of 3,650 route miles. Freight railroads own most of the network. The Northern Indiana Commuter Transportation District owns the 69-mile South Shore Line (NICTD), Amtrak owns 17 miles between Porter and the Michigan border, and tourist/excursion railroads own 51 miles at several locations in the state. Indiana’s rail network is used primarily for freight movement. However, some rail corridors are used for both passenger and freight operations.

Table 2-1 – Breakdown of Indiana Track Mileage

Railroads	Miles Leased	Miles Owned	Miles Owned, Not Operated	Miles Operated	Trackage Rights
Freight Railroads					
Class I	15	2,409	470	3,224	800
Class II	2	200	2	200	14
Class III	445	904	32	1,605	288
Passenger Railroads					
Intercity Passenger Rail	0	17	0	413	396
Commuter Rail	0	69	0	69	0
Tourist Railroads	5	51	11	45	5
Total Indiana Railroads	467	3,650	515	5,556	1,503

Source: 2019 R-1 Annual Reports filed with the STB, INDOT Short line Database, INDOT Database of Inactive Rail Lines, AAR, HDR Analysis of Railroad Websites

2.1.1 Capacity and Usage of Rail Lines in Indiana

The capacity of Indiana’s rail lines is determined by the number and size of trains accommodated each day. From the perspective of rail lines’ owners and operators, there is little logic to building and maintaining rail lines at a higher capacity than necessary for the trains these lines carry. Too little capacity causes operational problems with trains being delayed and freight and passengers not arriving on time. Delays increase operating costs in equipment usage, train crew time, fuel, and other factors. Generally, railroads try to adjust rail lines' capacity to be appropriate to the level of rail traffic on those lines or the growth they anticipate. High-density rail lines are often referred to as “mainlines” while low-density rail lines are often referred to as “branch lines.” A frequently used threshold for defining rail lines as “high density” or “mainline” is 20 million gross tons of freight passing over the line per year. Indiana’s rail corridors with the highest density can be found in the north, traversing the state east-west to and from Chicago. Appendix A, Figure A-1 shows a map of the density of Indiana’s rail network.



The capacity of rail lines depends on several factors, including the topography, the mix of train traffic, rail yards' capacity, the number and size of passing sidings, and the operating speeds of tracks. A critical determinant of rail line capacity is the number of tracks. Most rail lines within Indiana are single track. The high-density rail lines to and from Chicago mentioned previously are double track. CSX Transportation's (CSXT) east-west rail corridor between Terre Haute, Indianapolis, Muncie, and the Ohio border, is also a double track. Appendix A, Figure A-2 shows a map of the number of tracks on the rail lines in Indiana.

Another determinant of the rail line capacity is how trains are dispatched. Under Track Warrant Control (TWC), train crews must obtain verbal authorization from a dispatcher to occupy a given track section. Areas dispatched by TWC are referred to as "dark territory" since there are no automatic signals. TWC is appropriate for low-density rail lines, but the process of obtaining verbal authorization limits the capacity of rail lines. Automatic Block Signaling (ABS) enables rail lines to have a higher capacity. ABS consists of a series of automatic signals by which trains can gain automatic authority to access track segments. Electronic signals determine whether track segments are occupied or otherwise obstructed and convey this information to approaching trains. The highest capacity system in everyday use in the U.S. for dispatching trains is the Centralized Traffic Control (CTC) system. Remotely located dispatchers can control train movements through remotely controlled switches.

In some cases, dispatchers also control signals, but in other cases, signals are automatic, and dispatchers control only the switches. As with the number of tracks, the usage of dispatch systems tends to depend on the freight level on rail lines in Indiana, so that lower density lines tend to be dispatched with TWC, the highest density lines with CTC, and ABS frequently used for those in between. Appendix A, Figure A-3 shows signal systems of rail lines in Indiana.

Positive Train Control (PTC) refers to technologies designed to stop or slow a train before certain accidents occur automatically. PTC is not another type of dispatching or signaling system, yet an overlay to improve rail safety. PTC is designed to prevent collisions between trains, derailments caused by excessive speed, trains operating beyond their limits of authority, incursions by trains on tracks under repair, and trains moving over switches left in the wrong position. PTC systems are designed to determine trains' location and speed, warn train operators of potential problems and act if operators do not respond to a warning. The Rail Safety Improvement Act of 2008 required railroads to install PTC systems on:

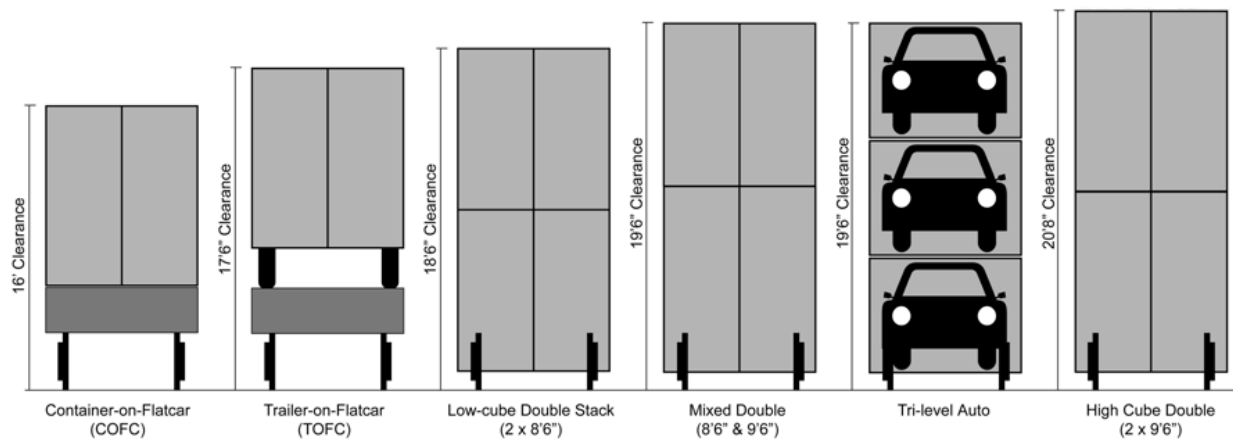
- All main rail lines over which regularly scheduled commuter or intercity passenger trains operate; and
- All Class I railroad main lines with over 5 million gross ton-miles per mile annually. Any amount of toxic/poison-by-inhalation hazardous materials is handled.

The federal deadline for fully implementing PTC systems was December 31, 2020. According to the Federal Railroad Administration's quarterly status update on railroads' self-reported progress, the railroad industry's implementation rate is higher than 99 percent as of September 30, 2020.

2.1.2 Height and Weight Capacity of Rail Lines in Indiana

The range of railroad equipment found on the U.S. rail network has increased dramatically since the start of U.S. rail history. Initially, railcars were generally no higher than 15 feet 6 inches above the rail. Some “high cube” boxcars are 17 feet above rail. Multilevel flatcars used for carrying automobiles are as high as 19 feet above rail. Railcars carrying double-stack high cube intermodal containers can be as much as 20 feet 2 inches above the rail. If one assumes a 6-inch buffer over railcars, 20 feet 8 inches are required to accommodate unrestricted double-stack operations. Figure 2-1 – Clearance Requirements by Type of Rail Equipment displays maximum clearances assuming a 6–inch buffer. Indiana state law prescribes 22 feet clearance for constructing new structures over rail tracks to accommodate general rail operations.⁴⁰

Figure 2-1 – Clearance Requirements by Type of Rail Equipment



Source: Vermont 2015 State Rail Plan

The vertical clearance of rail lines is only an issue if the lines’ vertical clearance limits equipment types that use those rail lines. Ideally, any rail line in Indiana would be able to accommodate any rail equipment. Most intermodal routes in Indiana can accommodate double-stack intermodal equipment. The one exception is the Louisville & Indiana Railroad (LIRC) line between Indianapolis and Seymour, which does not currently have the clearance to accommodate unrestricted double-stack operations. However, it should be able to do so after a series of upgrades associated with an agreement between the LIRC and CSXT.

In the early 1990s, the railroad industry began to shift from a maximum weight standard of 263,000-pound gross weight for railcars to 286,000 pounds. It is now the industry standard, especially on the large Class I freight railroads (see Section 2.1.3 for Class definitions). The shift offered cost savings for

⁴⁰ IN Code § 8-8-1-11 (2019)



large railroads and their customers since more freight could be shipped in one car. As the 286,000-pound railcar standard was adopted, the Association of American Railroads (AAR) tested these railcars' impact and estimated that operating savings (excluding maintenance-of-way) would be about 8.8 percent.⁴¹ Adopting 286,000-pound railcars can increase the cost of maintaining rail lines and bridges due to heavier loads, thus wear and tear. AAR's research found that the net cost impact of shifting to 286,000-pound railcars (accounting for increased maintenance-of-way expenditures) is approximately 6 percent. Not only are the 286,000-pound cars larger, but they can also fit more freight compared to the railcar's weight so that the increased capacity for many types of cars is 10 to 11 percent.

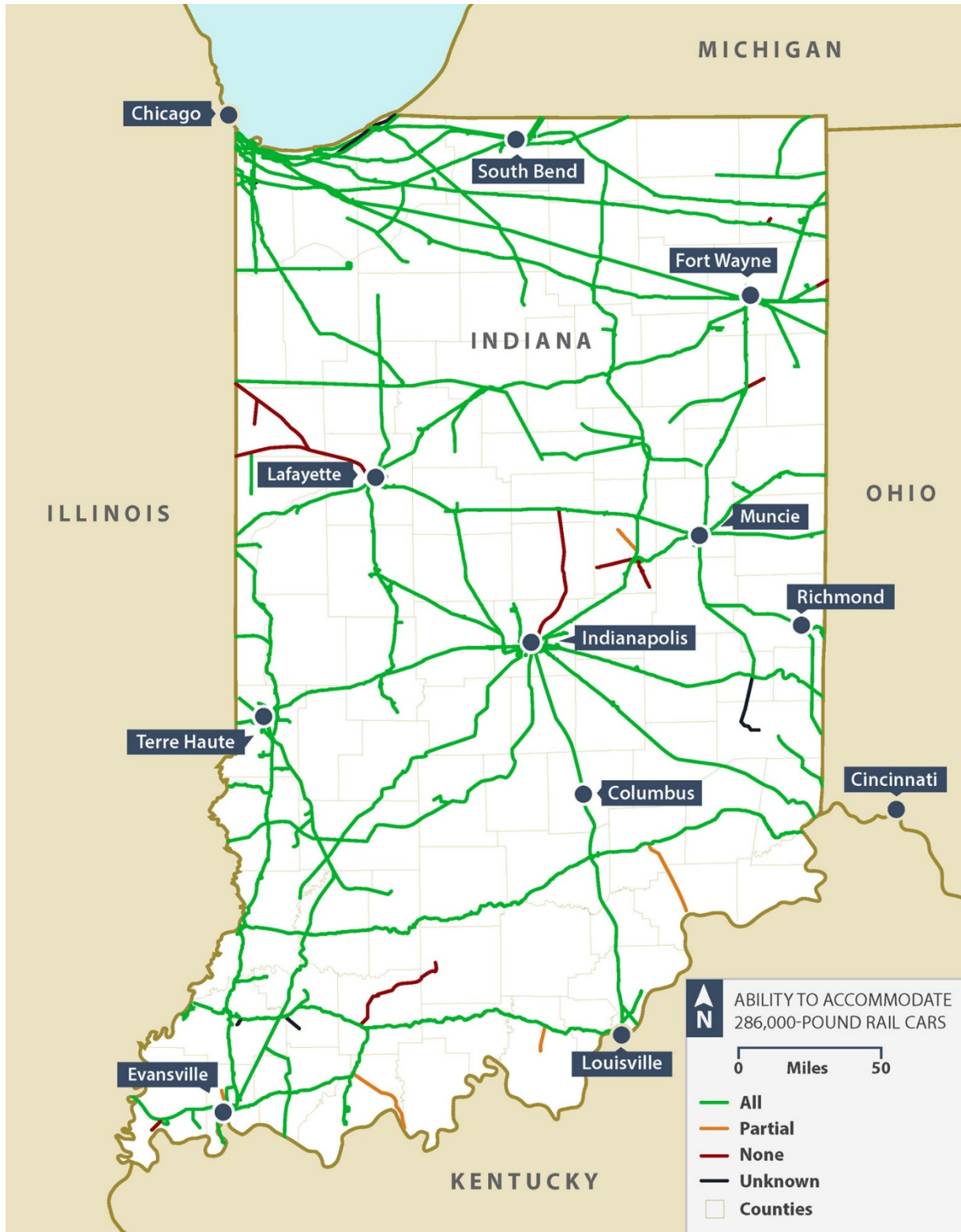
In addition to higher maintenance costs an initial upgrade investment might be required. Upgrading rail lines to accommodate these heavier rail cars can be expensive and may require upgrading both tracks and bridges. Within Indiana, at least 154 miles of rail lines are unable to accommodate these industry-standard 286,000-pound railcars. Figure 2-2 displays those rail lines in Indiana that can accommodate 286,000-pound cars and those that cannot exist as of 2019. Besides closing highway-rail grade crossings and rehabilitating rail bridges, upgrading rail lines to handle 286,000-pound railcars is most likely the greatest need for freight rail improvements in Indiana. This need applies mainly, if not wholly, to short line railroads.

Over the past few years, Indiana has seen some significant investments in its track capacity. The South Shore Rail Rehabilitation Project allows the Chicago South Shore & South Bend Railroad to upgrade 7.5 miles of its freight-only line between Michigan City and La Porte, Indiana. The project will replace the existing 90-pound jointed rail more than 100 years old with a modern 115-pound continuous welded rail. CSXT committed to investing \$100 million to install new rail, upgrade the rail bed structure, and improve bridges on LIRC's 106-mile rail line between Indianapolis and Louisville, Kentucky, in return for a permanent easement from LIRC. Train speeds and the number of daily trains are anticipated to increase as these track improvements are completed.

⁴¹ M.B. Hargrove, Thomas S. Guins, and Carl D. Martland, Economics of Increased Axle Loads: FAST/HAL Phase II Results, Report No. LA-007, Association of American Railroads, October 1996.



Figure 2-2 – Ability of Indiana Rail Lines to Accommodate 286,000-Pound Railcars, 2019



Source: HDR Survey of Railroads



2.1.3 Railroad Companies in Indiana

According to the Association of American Railroads, Indiana ranks fourth highest in the nation in terms of the number of railroads operating in the state.⁴² Forty-eight railroads operate within the state or access portions of the Indiana rail network through joint facility or trackage rights agreements with other railroad owners. Indiana's freight railroads are divided into three classification categories, as determined by the U.S. Surface Transportation Board (STB). These classifications were most recently updated by a new final rule, EP 763, issued by the STB on April 5, 2021 and effective June 4, 2021.⁴³

- **Class I** – Class I carriers are defined by the STB as those railroads having annual operating revenues in excess of \$900 million in 2019 dollars.
- **Class II** – Also known as regional railroads, Class II carriers are defined by the STB as those railroads having annual operating revenues less than the Class I threshold of \$900 million in 2019 dollars but greater than \$40.4 million in 2019 dollars.
- **Class III** – Also known as short line railroads, Class III carriers are defined by the STB as those railroads having annual operating revenues less than \$40.4 million in 2019 dollars. All switching and terminal companies, regardless of their operating revenues, are designated as Class III carriers.

Most of the individual railroads in Indiana are “short line” railroads, which provide local service on rail lines or regions not served by large freight rail companies.

STB will change a railroad's classification on January 1 in the year immediately following the third consecutive year of revenue qualification in its new class.⁴⁴ The different types of freight railroads in Indiana play separate roles within the rail industry. The state's Class I freight railroads have vast service areas with rail lines that link major manufacturing and population centers. CSXT and NS each have routes that blanket the entire eastern half of the United States, while CN has lines throughout Canada and the United States. These railroads can provide long-haul freight movements between different regions of the country and provide local rail service to shippers along its lines. Most Class II and Class III freight railroads specialize in providing last-mile connections to rail customers in local or regional areas. Figure 2-3 provides a map of the Indiana rail network.

⁴² Association of American Railroads. 2017 State Rankings. Retrieved from: <https://www.aar.org/wp-content/uploads/2019/05/AAR-State-Rankings-2017.pdf>

⁴³ Surface Transportation Board Adopts Final Rule Amending Thresholds for Classifying Rail Carriers, April 5, 2021. Retrieved from: <https://prod.stb.gov/news-communications/latest-news/pr-21-16/>

⁴⁴ Code of Federal Regulations, Title 49 Transportation, Volume 9, Part 1201 Railroad Companies, Section 1-1 (2018-10-01). Retrieved from: <https://www.govinfo.gov/content/pkg/CFR-2018-title49-vol9/xml/CFR-2018-title49-vol9-part1201.xml>



A few Indiana railroads categorized as Class III railroads are in a sub-category by themselves, namely the Port Authority Railroads. Port Authority railroad lines are owned by local government entities, which may choose to establish their operating railroad or contract with a railroad to provide freight rail service. For example, Hoosier Southern Railroad is a Class III railroad that operates as a division of the Perry County Port Authority. The port authority was formed in 1991 by the Perry County Board of Commissioners to acquire a rail line that was about to be abandoned to maintain service to existing rail-dependent employers in the county and attract new industry to the area.⁴⁵ In a similar vein, the City of Madison Port Authority established the Madison Railroad to provide service on its trackage. The City of Auburn Port Authority contracts with CSXT to provide service on its tracks. The Hoosier Heritage Port Authority does not serve a port. However, it is a track owner that hosts the Nickel Plate Heritage Railroad for tourists.

2.1.3.1 Class I Railroads

Class I freight railroads operate 53 percent of the Indiana rail network by route miles. Class I rail service to Indiana is provided mainly by Norfolk Southern Railway (NS) and CSX Transportation (CSXT), the two primary Class I rail carriers in the eastern U.S. Both carriers maintain extensive networks within Indiana. A single rail line owned by the Canadian National Railway (CN) runs through the state's northwest corner. In addition, the Canadian Pacific Railway (CP) has operating rights to over 154 miles of several rail lines in northern Indiana. The Union Pacific Railroad (UP) has 19 miles of trackage rights on rail lines outside of Chicago within Indiana. See Table 2-2.

Table 2-2 – Class I Freight Railroad Mileage in Indiana

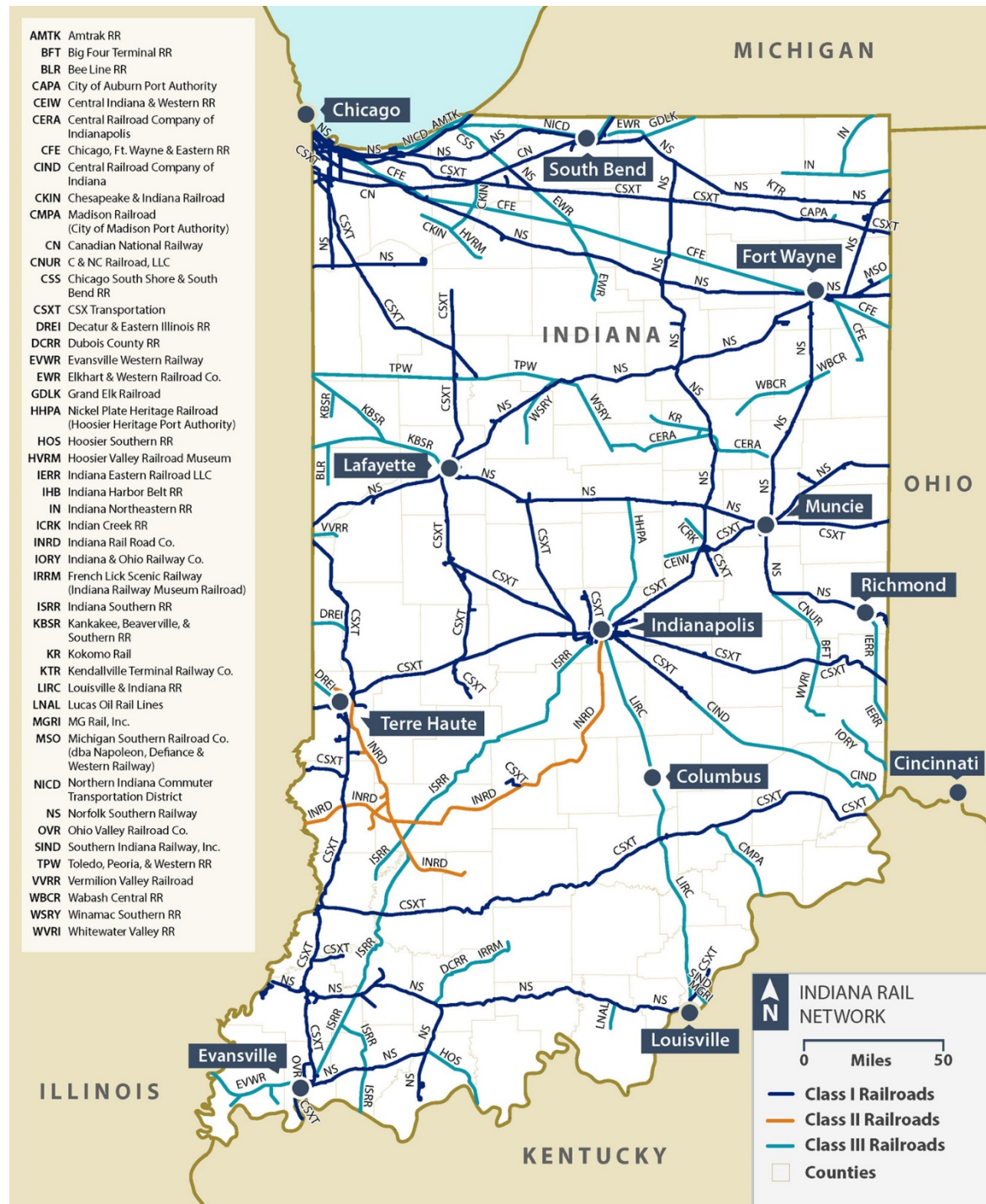
Class I Railroads	Miles Leased	Miles Owned	Miles Owned, Not Operated	Miles Operated	Trackage Rights
Canadian National Railway	0	103	0	103	0
Canadian Pacific Railway	0	0	0	154	154
CSX Transportation	13	1,132	434	1,507	362
Norfolk Southern Railway	2	1,174	36	1,441	265
Union Pacific Railroad	0	0	0	19	19
Total	15	2,409	470	3,224	800

Source: 2019 R-1 Annual Reports filed with the STB

⁴⁵ Perry County Port Authority. History page. Retrieved from: <https://pcrailport.net/history.html>



Figure 2-3 – Indiana Rail Network



Source: State of Indiana 2019 Rail System Map, HDR Survey of Railroads

2.1.3.1.1 CSX TRANSPORTATION

CSXT operates over 20,000-mile of track in 23 states and Washington, DC, including 1,507 miles in Indiana. CSXT owns 1,132 miles of track and operates the remainder under lease or trackage rights. CSXT serves significant markets in the eastern part of the U.S. While CSXT traffic flows vary by commodity, the most extensive flows on the carrier's system roughly describe a triangle, with Chicago anchoring the northwest corner, major northeastern markets such as New York representing the northeast corner, and markets such as Florida and Atlanta comprising the southeastern corner of the triangle. Two legs of this triangle pass through Indiana and are among the most heavily trafficked CSXT lines in the state, including the Barr and Garrett Subdivisions, which provide east-west connectivity across the northern part of the state, and the CE&D Subdivision, which runs north-south along the Illinois border in the western part of the state (Figure 2-5). CSXT operates a significant freight classification yard in Avon, west of Indianapolis (Figure 2-4). (Appendix A, Table A-1 describes CSXT rail lines in Indiana.) Commodities shipped by CSXT within Indiana include coal, agriculture and food, automotive, chemicals, intermodal, and metals and equipment.⁴⁶

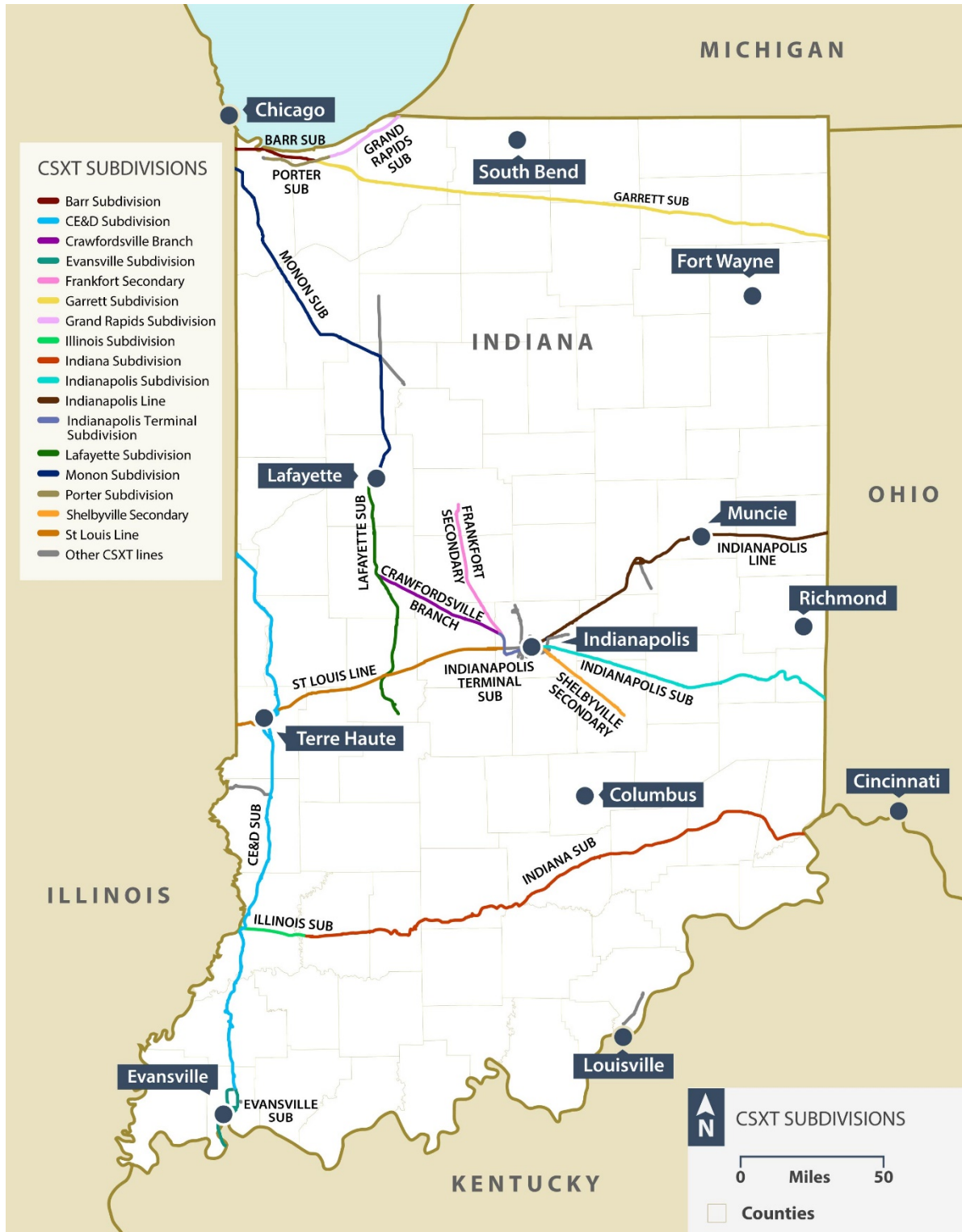
Figure 2-4 – CSXT Classification Yard at Avon



⁴⁶ CSX Transportation. Indiana fact sheet 2019



Figure 2-5 – CSXT Subdivisions



Source: INDOT, HDR

2.1.3.1.2 NORFOLK SOUTHERN RAILWAY

Similar to CSXT, the NS network serves many of the significant rail markets in the eastern U.S. NS operates almost 19,500 route miles in 23 states and Washington, DC, of which 1,441 are in Indiana. NS owns 1,174 miles in Indiana. The busiest rail flows on the NS system in Indiana are on the Chicago Line that crosses through northern Indiana. This line is part of the NS corridor that connects Chicago with northeastern markets such as Pennsylvania and New York (Figure 2-7). NS operates a significant freight classification yard in Elkhart. Appendix A, Table A-2 describes NS rail lines in Indiana. The principal commodities shipped by NS into and out of Indiana in 2017 were coal, agricultural products, and metals and construction products (Figure 2-6).

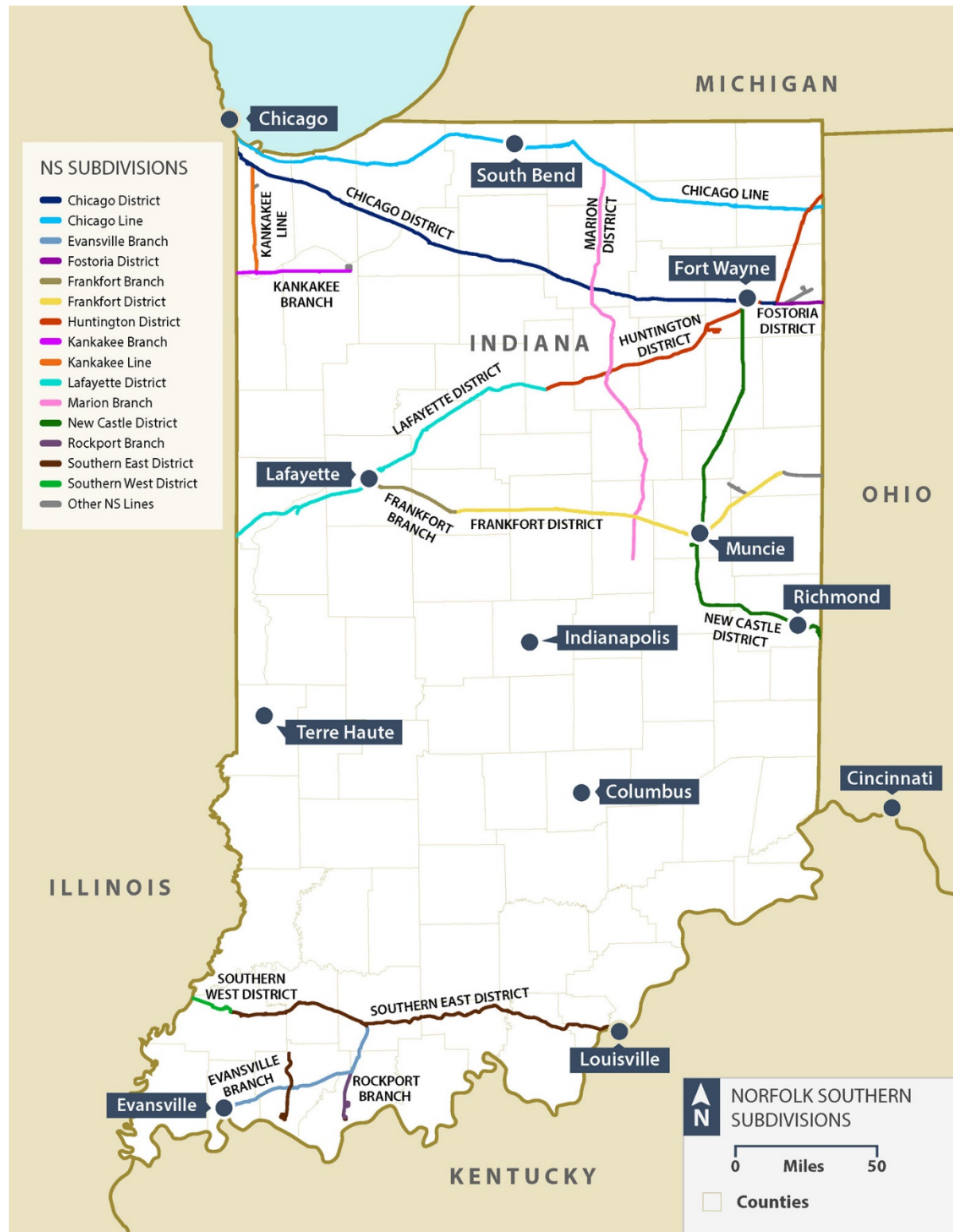
Figure 2-6 – Norfolk Southern Engine 2724 near Grain Elevator



Source: NS



Figure 2-7 – Norfolk Southern Subdivisions



Source: INDOT, HDR



2.1.3.1.3 CANADIAN NATIONAL RAILWAY

Canadian National Railway (CN) operates almost 6,000 miles in the U.S., serving 13 states. CN also operates lines throughout Canada, connecting the Pacific and the Atlantic coasts. CN owns and operates 103 miles of track in the northwest corner of Indiana, connecting Chicago to eastern Canada via the Saint Clair River tunnel. CN operates Kirk Yard, their largest railyard in the U.S. in Gary. CN's top three commodities transported within Indiana are intermodal containers, coal, and metals.

2.1.3.2 Class II and Class III Railroads

Thirty-eight Class III freight railroads and one Class II freight railroad, the Indiana Rail Road Company, operate in Indiana. Collectively, these railroads operate 1,549 route miles or 42 percent of the Indiana rail network. Of the 1,549 miles, 1,104 miles are owned by the railroads that operate over those lines, while 445 miles are leased. In some cases, the operating companies are the railroad owners. In other cases, railroads are owned by short line holding companies, which own a portfolio of different Class II and Class III railroads. As examples, Genesee & Wyoming, Inc. owns six railroads in Indiana: the Toledo, Peoria & Western Railway; the Chicago, Fort Wayne & Eastern Railroad; the Central Railroad Company of Indiana; Central Railroad Company of Indianapolis; the Indiana & Ohio Railway Company; and the Indiana Southern Railroad. Pioneer Lines owns four railroads in Indiana: the Elkhart & Western Railroad Company, the Indiana Southwestern Railway Company, the Kendallville Terminal Railway Company, and the Michigan Southern Railroad Company, dba Napoleon, Defiance & Western Railway. Other railroads are owned by shippers, such as the Bee Line Railroad (owned by Stewart Grain) and Lucas Oil Rail Lines (owned by Lucas Oil). Some Class III carriers are owned by local government agencies, including the Madison Railroad (owned by the City of Madison Port Authority) and the Hoosier Southern (owned by Perry County Port Authority).

Class III freight railroads can be further subdivided into short line or switching and terminal railroads. Short line railroads operate locally or regionally, providing service to customers along their lines and moving carloads to and from interchanges with Class I freight railroads. (Appendix A, Table A-3 describes short line railroads in Indiana.) Switching and terminal railroads are associated with specific rail terminals or facilities. Their focus is on "switching" or sorting cars to and from industry and storage tracks and making and breaking up trains. (Appendix A, Table A-4 provides summaries of Indiana switching and terminal railroads.)

Short line and regional railroads within Indiana vary widely by the amount of traffic they carry and their rail networks' size. If not most, many short line railroads operate over rail lines that had previously belonged to larger railroads but were spun off because they were considered unprofitable or non-essential by their previous owners, or the previous owners ran into financial difficulty. Because they had not been high investment priorities, in many cases, these rail lines were in a poor state of repair when obtained by their current owners with an accumulation of deferred maintenance needs.



The FRA has established track classifications that dictate the maximum speeds trains can operate over rail lines, the required frequency of track inspections, and the robustness level with which tracks are built and maintained. The FRA track classification can be used as an indicator of a rail line's state of repair as follows:

- **Excepted** – This designation indicates that a track segment is in a poor state of repair. Freight trains are limited to a maximum of 10 miles per hour, passenger operations are not permitted on the line, and no train can operate with more than five cars of hazardous materials.
- **Class 1** – Class 1 track meets specific minimum standards but limits train speeds to no more than 10 miles per hour.
- **Class 2 and above** – The FRA has established nine track class categories in addition to Excepted, with Class 9 enabling up to 200 miles per hour operations and Class 2 enabling freight trains to operate at 25 miles per hour (passenger trains at 30 miles per hour). To assess short line and regional railroads, FRA Class 2 track or above indicates that the rail line is maintained in a relatively good repair state.

Appendix A, Tables A-3 and A-4 provide the FRA track classifications for the rail lines used by Class III railroads.

2.1.4 Strategic Rail Corridor Network

The U.S. military seeks to ensure that the national transportation network is prepared to support defense deployment. Rail transportation is essential to deploying heavy and tracked vehicles to seaports of embarkation. In conjunction with the FRA, the U.S. Department of Defense (DoD) has established the Strategic Rail Corridor Network (STRACNET) to ensure minimum rail needs are met and coordinated for defense deployment.⁴⁷ A portion of the STRACNET passes through Indiana (Figure 2-8). The DoD works to ensure that the appropriate clearance capability is available for oversize DoD cargo on STRACNET lines. In addition to the STRACNET, associated defense connector lines are rail connections that link remote military facilities to STRACNET and are likely to be restricted to lower operating speeds.

⁴⁷ Military Surface Deployment and Distribution Command Transportation Engineering Agency. Strategic Rail Corridor Network (STRACNET) and Defense Connector Lines, October 2018. Retrieved from: https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/RND%20Publications/STRACNET%202018_Reduced.pdf



Figure 2-8 – Strategic Rail Corridor Network (STRACNET) in Indiana



Source: Department of Defense, HDR



The U.S. military has a significant presence in Indiana. Indiana is the 17th most populous state but boasts the 4th largest National Guard contingent. This includes the 38th Infantry Division, two air wings, and several separate brigades.

Military installations require efficient and reliable access to the freight transportation system for national defense purposes. The U.S. military depends on the Indiana freight system to move cargo to support the installations and deploy personnel and equipment for national defense. The Strategic Highway Network (STRAHNET) and the STRACNET were developed by the Department of Defense (DoD) in coordination with the Federal Highway Administration (FHWA) to meet this critical need.⁴⁸ The STRAHNET and STRACNET are networks of highways and rail lines, respectively, which provides the U.S. military access, continuity, and emergency capabilities for defense purposes. The state's military installations serve as major freight generators, consumer markets, and need connectivity to the freight transportation system. Diverse and complex supply chains are necessary to efficiently and reliably provide logistics support to these military sites. Enormous amounts of fuel, food, ammunition, maintenance, equipment & materials, and medical supplies are critical to maintaining these units in a combat-ready posture. Transportation infrastructure includes highways, rail, inland waterways, and the air critical for supporting these supply chains and deploying units.

Camp Atterbury (CAIN), located near Edinburgh, Indiana, is the state's largest military site. The Atterbury Rail Deployment Facility (Figure 2-9) or "railhead" at CAIN can load/unload a brigade combat team in 72 hours and handle 120 railcars per day. The facility possesses services and equipment to facilitate rapid deployment activities (Figure 2-10). It includes a 20,000-square-foot vehicle deployment processing facility, weigh-in-motion scale house, rail operations building, and loading, marshaling, and staging areas. CAIN is served by the Louisville and Indiana Railroad.

⁴⁸ Federal Highway Administration. 2004 Conditions and Performance Report, Chapter 18: Strategic Highway Network (STRAHNET). Retrieved from: <https://www.fhwa.dot.gov/policy/2004cpr/chap18.cfm>

Figure 2-9 – Camp Atterbury Rail Deployment Facility



Figure 2-10 – Camp Atterbury Locomotive



Other military facilities include Grissom Joint Air Reserve Base near Bunker Hill, IN, which hosts an Air Force Reserve refueling wing and the Muscatatuck Urban Training Center, near Butlerville, IN, the Army's largest and most technologically advanced urban training facility. Crane Naval Surface Warfare Center, near Crane, IN, the third largest naval installation in the world. Crane possesses over 90 miles of active rail lines to support its mission and is served by the Indiana Railroad.

Indiana is also home to several rail-served industries that support the DoD, such as Rolls Royce (aircraft engines) based in Indianapolis and BWX Technologies (naval engine components) based in Mount Vernon.

The State also holds abandoned military rail infrastructure, such as Jefferson Proving Grounds, north of Madison, an old facility to test military ammunition (Figure 2-11). These rail lines have no significance to STRACNET.

Figure 2-11 – Abandoned Rail Infrastructure at Jefferson Proving Grounds





2.1.5 Inactive and Abandoned Rail Lines in Indiana

When rail lines are no longer used for rail service, they can have different statuses.

- **Discontinued Service/Inactive** — Although no trains operate over them, inactive rail lines are still owned by railroads. The railroad maintains a common carrier obligation so that it could be required to serve shipper(s) upon reasonable request.
- **Abandoned** — Before a railroad can sell or transfer property ownership of a rail corridor and its underlying property to a non-rail operating entity, the corridor must be “abandoned.” This is a process whereby the STB releases the railroad from its common carrier obligation. Once the corridor is abandoned, the railroad can sell the land if the corridor had initially been acquired by purchase. However, suppose the railroad was granted a “right” to use the land for railroad purposes through an easement. In that case, the ownership of the right-of-way reverts to the current owner of the parcel of land that contained the easement when it was granted (See Appendix A, Figure A-4).
- **Rail Banked** — In 1983, Congress passed the National Trails Act, which allowed for the banking of rail corridors, including easements, through the interim use of railroad corridors as recreational trails. In these cases, a trail group intervenes in the abandonment process. It negotiates with the railroad to transfer ownership, including easements, to the trail group. Interim trail use presumes that at some point, the railroad right-of-way will be needed once again for rail purposes.
- **Public Use** — The National Trails Act also allows agencies to request that the rail corridor be made available for public use if it has determined that the right-of-way is suitable for highway or mass transit usage, conservation, energy production or transmission, or recreation.

Several rail lines within Indiana fall within the inactive category:

- 15 miles of the Indiana and Ohio Railway
- 10 miles of the Central Railroad of Indiana
- 2 miles of the Central Railroad of Indianapolis
- 0.4 miles of the Chicago, Fort Wayne & Eastern Railroad
- 2 miles of the Hoosier Heritage Port Authority
- 1 mile of the Hoosier Southern Railroad
- 2 miles of the Madison Railroad
- 22 miles of the NS Kokomo Spur
- 15 miles of the NS Sharpville Lead
- 68 miles of the CSXT Hoosier Subdivision from Bedford to New Albany



Indiana's rail network today is much smaller than it had once been. Since 1950, nearly 3,500 miles of rail line in Indiana have been abandoned and are no longer in rail service.⁴⁹ The 1980s were a decade with a high loss of track of the Indiana rail network. The Staggers Rail Act of 1980 deregulated the American railroad industry allowing railroads to take a market-based approach to railroading and abandon unprofitable track. Since 2014 no major STB-approved rail abandonments have been consummated in Indiana.⁵⁰

Approximately 143 miles of track have been railbanked.⁵¹ Figure 2-12 shows Indiana's railbanked lines. Indiana hosts about 477 miles of recreational trails that have been built on former rail lines.⁵² Most recreational rail-trails within Indiana were established without an "interim use" or "railbanking" designation by the STB.

On December 19, 2017, CSXT filed for the abandonment of approximately 62.3 miles of rail extending from milepost Q251.7 in Bedford to milepost Q314.0 in New Albany. It was assigned Docket # AB 55-775-X by the STB.

On February 17, 2021, the negotiating period between CSXT and the Indiana Trails Fund for interim trail use was extended until February 18, 2022. CSXT has not consummated the abandonment of the line.

NS abandoned 0.2 miles of track in Hartford City between mile markers 138.6 and 138.8 in 2018.

Tracks also get reactivated if there is a commercial incentive to do so. As part of a \$39.5 million plant expansion announced in 2020, Northwest Ordinance Distilling of New Albany is investing \$2 million to reactivate a segment of idled CSXT track through the city. Once part of CSXT's former Monon Railroad mainline, the track has been dormant for approximately five years. More than 3 miles of the rail line will be placed back in service.

⁴⁹ Indiana Department of Transportation. 2017 Indiana State Rail Plan.

⁵⁰ Indiana Department of Transportation. Abandonment Database.

⁵¹ Updated information based on the 2017 Indiana State Rail Plan.

⁵² Rails to Trails Conservancy, Indiana Fact Sheet. Retrieved from: <https://www.railstotrails.org/our-work/united-states/indiana>



Figure 2-12 – Active and Rail Banked Lines in Indiana



Source: INDOT, HDR Analysis



2.2 Freight Multimodal Connections

Indiana has robust multimodal connectivity to national and global markets via the Class I rail system, supported by a network of strong short line rail providers and the inland waterways via the Ohio River and the Great Lakes. This multimodal freight network allows a shipper to take advantage of a particular transportation mode's benefits in a seamless transaction from door to door.

This inventory identifies those available facilities in Indiana to support movement of products to and from the rail system and other modes. This inventory includes truck-to-rail and rail-to-water connectivity. The inventory of intermodal facilities is organized into the following categories:

- Intermodal Terminals (container on flatcar)
- Automotive Ramps
- Transload Facilities
- Grain Elevators and other Agricultural Facilities
- Port Locations

2.2.1 Intermodal Terminals

Indiana produces and receives freight that is transported via intermodal containers. Twenty-foot and 40-foot containers are particularly critical to the import and export markets. Fifty-three-foot containers are typically used domestically. They can quickly and efficiently be transferred between railcar and truck-trailer. Trucking companies are one of the railroad's largest customers, causing domestic intermodal container volume to represent approximately half of US intermodal rail traffic.⁵³

Containers come in various forms, including boxes for dry freight, refrigerated goods, tankers for liquids, and others. Containerization is expanding to many different types of products. For example, an interest in tracking the source of products in the food chain has led to an increase in containers for export grain shipments, an essential commodity for Indiana. Railroads have been de-emphasizing trailer-on-flatcar (TOFC) service, and trailers have in many cases been replaced by 53-foot domestic container service. None of the existing intermodal terminals within Indiana handle trailers.

Chicago intermodal service has been dominant for serving portions of the surrounding states, including some parts of Indiana. The high container volumes and high density of containers traveling between specific markets and Chicago drive down intermodal rail costs in Chicago. However, growing concerns regarding rail congestion around Chicago have improved the viability of Indiana options, including those provided by CSXT and new services over the CN network. Through the Elgin, Joliet, and Eastern Railway Company (EJ&E) purchase, CN added a pivotal line to its network that

⁵³ Association of American Railroads. What Railroads Haul: Intermodal. Retrieved from: <https://www.aar.org/wp-content/uploads/2020/07/AAR-Intermodal-Fact-Sheet.pdf>



provides an alternative route by which trains can bypass the Chicago urban core. As a result, Indiana has established itself as a new intermodal hub for CN traffic.

In 2013, INRD and CN established a joint intermodal facility in Indianapolis. This facility enables CN to offer direct service between Indianapolis and the ports of Prince Rupert and Vancouver, British Columbia, allowing shipments of import and export commodities to avoid congestion in Chicago’s terminals and the expense of a truck movement between Chicago and Indianapolis.

CSXT maintains one intermodal facility in Avon, ten miles west of Indianapolis. This terminal connects domestically throughout the CSXT network and elsewhere via connections with other Class I systems. From Avon, CSXT provides domestic container service to locations in the Northeast, West Coast, Salt Lake City, Utah, and Dallas, Texas. In 2019, trucking company Schneider National launched a new intermodal service with CSXT for container shipments moving between Indianapolis and East Coast terminals in North Bergen, NJ and Worcester, MA.⁵⁴ With two- to three-day transit times, the service is competitive with truckload movements and provides shippers in Indiana, northern Kentucky, and western Ohio with an intermodal option that avoids the need to dray containers to and from railroad terminals in Chicago. On December 15, 2017, CSXT closed its Evansville intermodal facility. Table 2-3 lists the current intermodal facilities.

Table 2-3 – Intermodal Facilities

Facility	Location	Serving Railroad	Annual Lift Capacity
Avon Intermodal (Indianapolis)	Avon	CSXT	100,000
Indianapolis Intermodal	Indianapolis	CN, INRD	24,000

Source: CN, INRD, ‘New rail route connects Hendricks County to West Coast,’ Indianapolis Business Journal, October 29, 2008

2.2.2 Automotive Terminals

Indiana is home to the second-largest automotive industry globally and is integral to Indiana’s economic development plans. In 2011, the IEDC and Conexus Indiana created the Indiana Automotive Council. The council’s overarching goal is to support an economic environment that grows a more robust and innovative automotive industry. It has merged into the Conexus Indiana Advanced Manufacturing Council, aiming to accelerate, promote, and grow Indiana’s advanced manufacturing and logistics economy. Rail has emerged as a cost-effective means by which to distribute automobiles. Automobiles are shipped to regional markets in dedicated trains and then delivered to retail locations by truck. Indiana has one general-operations automotive ramp facility as well as four private ramps located at specific manufacturing plants. Table 2-4 lists the locations and types of automotive facilities.

⁵⁴ American Shipper. Schneider starts intermodal service at CSX Indianapolis ramp, June 25, 2019. Retrieved from: <https://www.freightwaves.com/news/schneider-starts-intermodal-service-at-csx-indianapolis-ramp>



Table 2-4 – Automotive Facilities

Facility Type	Facility Name	Location	Serving Railroad
General Automotive Distribution Facility	Elkhart Auto Terminal	Elkhart	NS
	Subaru of Indiana	Lafayette	NS
Private Automotive Facility	Toyota	Princeton	NS
	General Motors	Roanoke	NS
	Honda	Greensburg	CIND

Source: Automotive Facility Guide 2019 by Transportation Technology Center, Inc.

2.2.3 Transload Terminals

Access to multimodal transport in Indiana allows shippers cost-effective supply chain solutions for domestic and international markets. The term “transload” refers to a broad range of facilities that enable shippers to move non-containerized freight between two modes of transportation, often between truck and rail. These facilities benefit shippers that do not have direct rail connections. Transloading is also used for a broad range of cargoes, including bulk commodities such as grain and plastics and breakbulk commodities such as steel, building materials, and over-dimensional or extremely heavy items such as turbines or other large machinery.

Transload terminals have a variety of operating models. Some, such as the CSXT Transflo locations, are operated directly by the serving railroads and may be located on rail owned property. This service is often provided at the major yards of both the Class I and short line railroads. Others are operated by third parties, such as warehouse and trucking companies. Some shipper-owned locations also accept freight from outside sources. Indiana has many transload facilities. (Appendix A, Table A-5 lists transload facilities.)

The Louisville & Indiana Railroad in June 2019 completed a joint project with rail customer Great Western Malting Company to construct a rail-to-truck transload facility for malted grain at the railroad’s yard in Jeffersonville, Indiana. The 33-railcar facility includes a 90-foot-long covered, open-ended unloading structure with a concrete pad and pit beneath a single track that allows conveyors to load trucks. Inbound rail shipments of malted grain are transferred to trucks to serve the distillery and brewing industries in the northern Kentucky and southern Indiana region. Great Western built the facility under a long-term lease of space from the Louisville & Indiana Railroad.⁵⁵

2.2.4 Grain Elevators and other Agricultural Facilities

Agricultural products are shipped and received at locations in farming communities with rail-served grain elevators that receive products by truck from the farms and provide storage and loading to the

⁵⁵ Great Western Malting. LIRC, Great Western Malting Co. to open Jeffersonville Rail/Truck Transload Facility, June 6, 2019. Retrieved from: <https://www.greatwesternmalting.com/lirc-great-western-malting-co-to-open-jeffersonville-rail-truck-transload-facility>



rail network. The same or similar facilities provide access to inbound products such as feed and fertilizer. These facilities can be operated by the railroads, large agricultural companies, and farm cooperative organizations. (Appendix A, Table A-6 includes a partial list of rail-served grain elevators and other agricultural facilities.)⁵⁶

2.2.5 Ports and Waterways

More than half of Indiana’s border is water, including 400 miles of direct access to two major international freight arteries: the Great Lakes and the Ohio-Mississippi River System.⁵⁷ Access to waterways allows Indiana businesses to ship and receive large quantities of heavy, dense, or oversized cargo in the most cost-effective manner. The waterways are the most effective way to ship some of Indiana’s most important products, such as coal, grain, and steel, to foreign and domestic markets.

The waterway access system includes ports operated by organized port authorities for the state and specific communities. Ports of Indiana is a quasi-governmental entity that serves as a landlord for three public ports included in the inventory. Waterway access, particularly on the Ohio River, can also be provided at landings on private property operated by private-sector firms.

This inventory contains only those ports operated through a port authority. These ports have been identified as necessary by the U.S. Army Corps of Engineers as central port locations in the U.S. Table 2-5 identifies these ports and their cargo tonnage. Perry County Port Authority operates a public marine terminal in Tell City and Evansville Port Authority in Evansville. These two ports are relatively small, and annual tonnage is not publicly available.

Table 2-5 – Major Rail-Served Port Facilities in Indiana

Port	Total Tonnage		
	2017	2018	2019
Port of Indiana – Mount Vernon	9,118,896	10,332,103	9,344,185
Port of Indiana – Burns Harbor	9,189,391	8,496,097	9,189,391
Port of Indiana – Jeffersonville	2,199,012	2,478,820	2,464,284
Indiana Harbor – East Chicago	12,213,768	11,910,541	12,213,768
Buffington Harbor – Gary	1,336,851	1,634,865	1,570,196
Port of Gary – Gary	8,106,529	8,600,449	7,978,004

Source: *Ports of Indiana, U.S. Army Corps of Engineers Waterborne Commerce Statistics*

⁵⁶ No exhaustive list exists that would cover all the rail-served elevators in the state.

⁵⁷ Ports of Indiana. Retrieved from: www.portsofindiana.com

More information on rail-served ports in Indiana appears below.

Port of Indiana – Burns Harbor. There are more than seven miles of tracks at the Port of Indiana-Burns Harbor, (Figure 2-13) located on Lake Michigan. The port handles 9,000 railcars annually, 75 percent of which carry steel coils, other steel products, and steel scraps. NS directly serves the port and provides switching services there seven days a week. NS has a major rail yard outside the port, from which shipments can be moved by NS to the destination or interchanged with the Indiana Harbor Belt Railroad and all Class I railroads.

Figure 2-13 – Loading and Unloading Activities at Port of Indiana-Burns Harbor



Source: Ports of Indiana

Port of Indiana – Jeffersonville. The Port of Indiana-Jeffersonville, situated on the Ohio River, handled more than 12,000 railcars in 2019, primarily shipments of steel, plastics, and grain (Figure 2-14). The port is served by CSXT and Louisville & Indiana Railroad, which interchange cars with NS, CN, Indiana Rail Road Company, Paducah & Louisville, and CP. Rail switching is available seven days a week.

- MG Rail provides 24-hour onsite switching
- CSXT maintains a switching yard adjacent to the Port of Indiana-Jeffersonville and another in Louisville, 14.5 miles away
- Louisville & Indiana Railroad maintains a switching yard in Jeffersonville and interchanges with CSXT in Jeffersonville, Indiana Rail Road Company in Indianapolis, and NS in Louisville

- Louisville & Indiana Railroad provides service from southern Indiana and Louisville to Indianapolis
- Trailer-on-flatcar (piggyback) service is available at NS's intermodal yard in Louisville's Buechel neighborhood, about 18 miles from the port

Figure 2-14 – Steel Train Entering Port of Indiana-Jeffersonville in front of Rail-Served Plastics Industries



Source: Ports of Indiana

Port of Indiana – Mount Vernon. The Port of Indiana-Mount Vernon is the state's largest port in acres and tonnage shipped. The port is located on the Ohio River (Figure 2-15). Between 2016 and 2019, the port handled 46,000 loaded railcars per year of coal, grain products, ethanol, dried distillers grain, and fertilizer. The port is served by Evansville Western Railway (EVWR), which interchanges with CSXT, NS, UP, BNSF, and CN. Rail service is available 24-hours a day, seven days per week. The port has a storage capacity for 200 railcars on six miles of interior rail track.

Figure 2-15 – Hopper Railcars Serving Consolidated Grain & Barge at Port of Indiana-Mount Vernon



Source: Ports of Indiana

See Section 2.3.4 for a description of how the three Ports of Indiana locations have been expanding their rail accessibility and are excelling as multimodal freight hubs.

Indiana Harbor. The Indiana Harbor complex is the largest integrated steelmaking facility in North America and is located on Lake Michigan in East Chicago, Indiana. The complex is served by the Indiana Harbor Belt Railroad (IHB), a switching and terminal railroad with connections with 16 other freight rail carriers in the Chicago region.

Port of Gary. The existing operations at the Port of Gary serve private facilities mostly in support of the steel mills.⁵⁸ Gary Railway is a standard carrier railroad that serves the U.S. Steel Gary mill and interchanges with CN. The concept of a public port at the Port of Gary and Buffington Harbor in Gary is still under development.

Tell City River Port. The Tell City River Port serves barge traffic on the Ohio River. The Port and its short line railroad, the Hoosier Southern Railroad (HOS), are owned and operated by the Perry County Port Authority of Perry County. HOS serves a few local businesses, including a foundry, and interchanges with NS at Lincoln City.

⁵⁸ World Port Source. Port of Gary, Port Commerce. Retrieved from:
http://www.worldportsource.com/ports/commerce/USA_IN_Port_of_Gary_3734.php



Port of Evansville. The Port of Evansville, located in the city's downtown, is a public general cargo facility engaged in transporting a wide range of agricultural and industrial bulk commodities. CSXT from nearby Howell Yard serves the Port.

2.3 Impact of Freight Rail in Indiana

The importance of freight rail to Indiana is described in this section, covering the following issues:

- Congestion Mitigation
- Safety
- Preservation of Road & Bridge Infrastructure

Indiana's railroads moved 7.9 million carloads to, from, through, and within the state in 2018, removing the equivalent of 13.8 million trucks—or approximately 38,000 additional trucks per day—from Indiana's roadway network.⁵⁹ In addition to its direct effects, the rail sector's largest indirect impact might be the avoided truck miles it generates.

2.3.1 Congestion Mitigation

Rail decreases roadway congestion and delay by removing cars and trucks from roadways. A single 100-car train can remove hundreds of trucks from the roadways, reducing congestion. Although trucks comprise only 7 percent of urban travel, they account for 18 percent of urban congestion.⁶⁰

2.3.2 Safety

Rail movement is relatively safe, especially in comparison with trucking. Unlike trucks and automobiles which share the same roadway network, freight trains are physically separated from passenger vehicles operating over Indiana's roadways except at highway-rail grade crossings, Table 2-6 shows the total accident rate in terms of crashes per ton-miles traveled (a ton-mile is the movement of one ton of freight per one mile) for rail and truck. Using this measure, the rate of crashes for trucks is 45 times higher than for rail.⁶¹ This indicates a significant safety benefit of encouraging the use of rail freight. If all rail freight in the U.S. were transported via truck, this could increase approximately 450,000 truck crashes, assuming these crash rates.

⁵⁹ See Section 5.1 for assumptions and sources

⁶⁰ 2015 Urban Mobility Scorecard. Texas Transportation Institute

⁶¹ Injuries associated with truck and rail transportation are reported differently. Trucking statistics are reported as "crashes," in which a truck strikes something. In the case of rail, most reported injuries do not involve a train hitting something. Rather, railroads are required to report any on-the-job injury or illness, most of which do not involve train equipment striking anything.



Table 2-6 – U.S. Truck Crash and Rail Accident Rates per 10 Billion Ton-Miles (2018)

Type	Rail	Truck
Total Crashes	10,046	531,000
Ton-Miles (Billions)	1,730	2,034
Crash Rate per 10 Billion Ton-Miles	58	2,610

Source: HDR analysis using annual ton-miles and accidents by mode, Bureau of Transportation Statistics

2.3.3 Preservation of Road and Bridge Infrastructure

Rail helps to preserve road and bridge infrastructure by reducing the number of heavy trucks on roadways. Although trucks account for far less traffic on roadways than passenger vehicles, each truck causes more damage to roads and bridges than passenger vehicles. Road and bridge damage is generally a function of a truck’s weight, the number of axles on which that weight is distributed, and the distance between axles. The addendum to the 1997 Federal Highway Cost Allocation Study, for example, found that the marginal pavement cost in cents per mile of an 80,000-pound truck was nearly four times that of a 60,000-pound truck.⁶² Diverting goods from the highway to the rail system saves repair and upgrade costs.

2.3.4 Case Studies

Ports of Indiana

The Ports of Indiana (POI) is a statewide port authority operating three ports on the Ohio River and Lake Michigan. Ideally situated on two major North American freight transportation arteries – the Great Lakes and the Inland Waterway System – the state’s three-port system serves the world’s most productive industrial and agricultural regions.⁶³ The POI locations are “economic engines” – they provide multimodal freight mobility support and intermodal connectivity that facilitates efficient and reliable freight movement. Ports of Indiana manages ports in Burns Harbor, Mount Vernon, and Jeffersonville. All three ports are rail-served, and most of their tenants have rail access or could quickly obtain it. All ports are in the process of expanding, including the construction of additional rail infrastructure. In some instances, these developments also spurred rail investments outside the ports. These are local success stories with regional or national impacts, making a case for rail and maritime supply chains linking up and complementing each other.

2.3.1.1 Port of Indiana-Burns Harbor

With the help of U.S. DOT’s FASTLANE (Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies) Grant program, two major rail projects at \$7.5

⁶² Federal Highway Administration. Addendum to the 1997 Federal Highway Cost Allocation Study Final Report, May 2000. Retrieved from: <https://www.fhwa.dot.gov/policy/hcas/addendum.cfm>

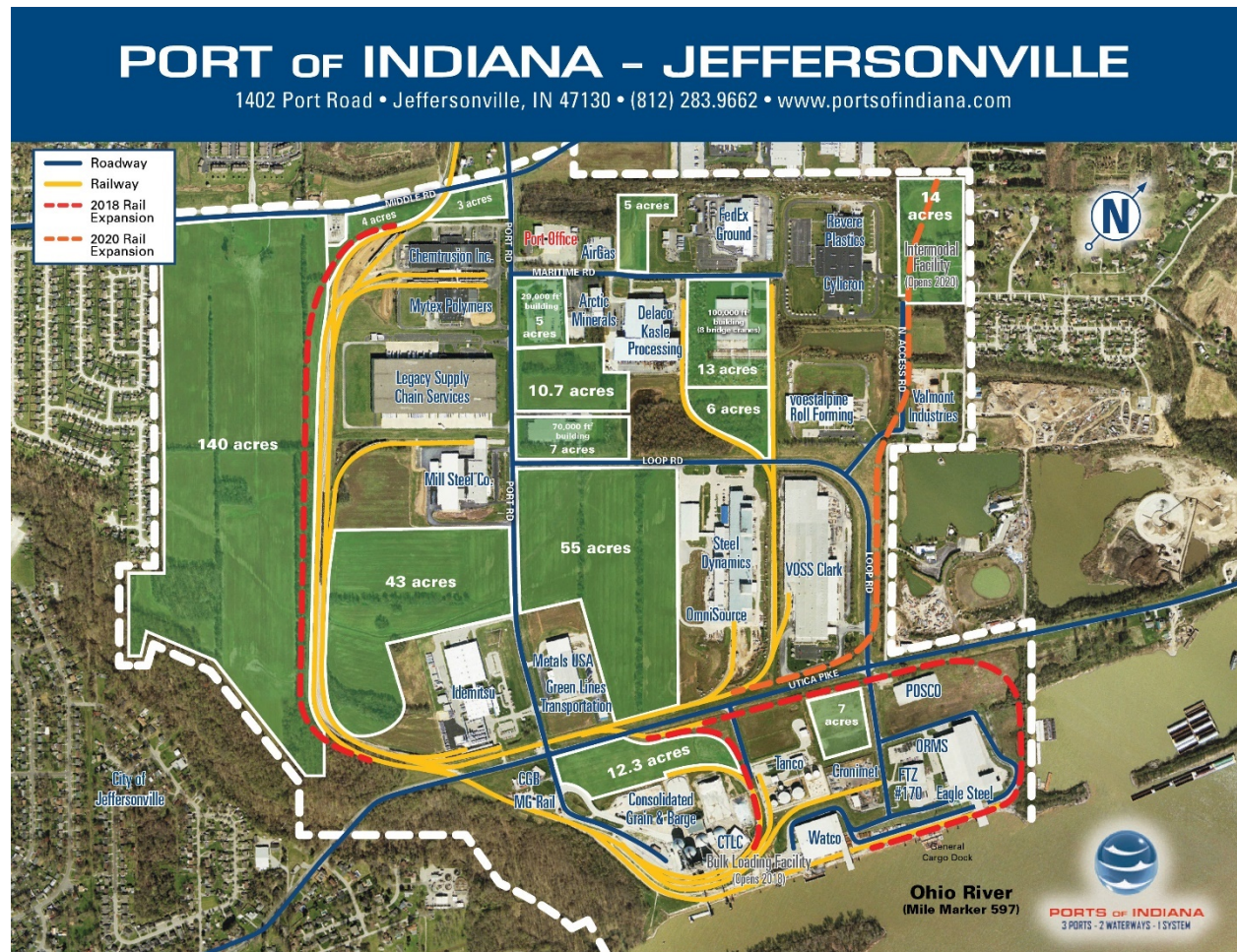
⁶³ Ports of Indiana. Retrieved from: <https://www.portsofindiana.com>



million are currently under construction: an eastern and a western rail yard. When completed, the yards will give the port and its 25 tenants the possibility to handle unit trains on either side of the port and store excess railcars. The ability to handle point-to-point unit trains will allow shippers to reduce transportation costs by bringing in larger trains and save shipping transit times. The East Yard is a 93-car rail storage yard, composed of four parallel ‘ladder tracks’ completed in October 2020. The West Yard, a 90-car storage yard composed of five ladder tracks and a spur track, will be completed in the second quarter of 2021.

There will be more than 11 miles of rail track at Port of Indiana-Burns Harbor once the current projects are completed. NS has a rail yard outside of the port and directly serves its tenants while also interchanging cars with connectivity to all Class I railroads seven days per week.

Figure 2-16 – Rail Expansion Plans for Port of Indiana-Jeffersonville



Source: Ports of Indiana



2.3.1.2 Port of Indiana-Jeffersonville

The Port of Indiana-Jeffersonville (Figure 2-16 and Figure 2-17) has been brimming with rail development investments since 2016. The following projects have been partially funded through U.S. DOT's Transportation Investment Generating Economic Recovery (TIGER) Grant program:

- The almost 5,000-foot Waterfront Loop Track involves the construction of a new rail embankment that will run around the southwest quadrant of the Port.
- The 2,280-foot Bulk Terminal Loop Track is an integral part of the Port's newly built bulk rail-to-barge transfer facility. This loop track is sized to allow for up to 35 cars per cut and enables more efficient dumping of rail cars.
- The 5,250-foot Unit Train Interchange Track project reflects the commercial trend in rail transportation that gives an economic advantage to long trains hauled long distances. These unit trains often negatively impact communities and vehicular traffic by creating long-duration blockage at highway-rail grade crossings that result from having to break the train to properly 'yard' it on arrival at the Port. By constructing this unit train interchange track, arriving unit trains can be pulled straight onto the track without breaking. Likewise, outbound unit trains can be set out to expedite picking up. This project generates safety and efficiency gains.
- The 5,300-foot East Rail Track Extension extends rail service to the Port of Indiana-Jeffersonville's northeast property limits. This track extension will serve the industry and a newly constructed Port-owned intermodal transload facility.
- The above-mentioned Intermodal Transload Facility allows for the transload between railcars and trucks in the Port's northeast corner.

Figure 2-17 – Rail Infrastructure between Consolidated Grain & Barge and the Ohio River



Source: Ports of Indiana

Additionally, the port's tenants have also been investing in their rail access. Steel Dynamics constructed a new sidetrack to their steel processing facility. Metals servicing company Voss Clark built two industry tracks with a total length of 1,250 feet at approximately \$220,000.

The port is served by CSXT and LIRC, which provide interchanges with NS, CN, The Indiana Rail Road Company, Paducah & Louisville, and CP. Rail switching is available seven days a week through MG Rail.

CSXT and LIRC agreed to a plan in 2013 to improve efficiency and safety along the 106-mile corridor between the critical consumer and freight hubs of Louisville and Indianapolis. Under the agreement, CSXT is investing up to \$90 million to upgrade tracks, bridges, and signals to safely support the anticipated growth of traffic between those crucial waypoints. The Surface Transportation Board approved the agreement after extensive review and public input. The upgrades to this corridor directly benefit rail traffic to and from the Port of Indiana-Jeffersonville.

2.3.1.3 Port of Indiana-Mount Vernon

From 2016 to 2020, the Port of Indiana-Mount Vernon on the Ohio River has invested approximately \$2 million in annual maintenance on port rail infrastructure to maintain its rail assets to a minimum of FRA Track Class 2 standards. The port is served seven days a week by Evansville Western Railway (EVWR) and provides interchanges to five Class I railroads. In a shared effort to improve port accessibility, EVWR invested \$17 million on their track and bridge infrastructure leading to the port between 2016 and 2019. The Port of Indiana is currently evaluating a rail transload and car storage

facility's potential development to serve local market demands. Figure 2-18 shows the Mount Vernon Transfer Terminal in operation.

Figure 2-18 – Mount Vernon Transfer Terminal



Source: Ports of Indiana

2.4 Passenger Rail Services in Indiana

Indiana has three types of passenger rail services: intercity passenger rail service provided by Amtrak; commuter rail service, which is provided by the Northern Indiana Commuter Transportation District (NICTD); and tourist/excursion railroad service, which is provided by local private and public entities. Intercity passenger trains operate on routes with longer distances (typically 100 miles or more) that are part of the national rail network; intercity passenger trains make frequent stops at intermediate stations, providing an alternative travel option for medium- and long-distance trips along the train's route. Commuter trains operate within a major metropolitan region, on tracks that are part of the national rail network, and with services scheduled to accommodate trips to and from work and local travel within the region. Tourist/excursion railroads operate trains for recreational or entertainment purposes; they will be discussed because they have economic development and rail corridor preservation significance.

2.4.1 Intercity Passenger Rail

Indiana is served by four Amtrak intercity passenger rail services and has 11 intercity passenger rail stations. In addition, Hoosiers can access additional intercity passenger rail services that serve



stations across the border in Michigan and Illinois. (Appendix A, Table A-7, and Table A-8 provide a summary of intercity passenger rail stations in Indiana.)

According to the 2014–2018 American Community Survey (ACS) five-year estimates, 1.9 million Indiana residents live in a census block group within a 10-mile radius of an Amtrak station, constituting 28.6 percent of the statewide population. According to the same survey, 4.4 million residents (or 65.7 percent of the statewide population) reside within 30 miles of an Amtrak station. These values include Indiana residents within 10 and 30 miles of an Amtrak station located outside the Indiana state border. See Section 1.5 for a map showing all Amtrak stations within a 30-mile radius of the state.

Amtrak began operations in 1971 following the passage of the Rail Passenger Service Act in 1970. As a quasi-government entity, Congress and the U.S. DOT oversee Amtrak's federal funds stewardship through grant agreements and appropriations provisions. Amtrak's Board communicates with the federal government through monthly and annual reports and business and strategic plans. Among the four Amtrak services in Indiana, three (the *Cardinal*, the *Capitol Limited*, and the *Lake Shore Limited*) are long-distance trains with routes over 750 miles. As such, costs for those trains not covered by passenger revenues are paid for by Amtrak, primarily through federal subsidies. By contrast, the fourth service, the *Wolverine* trains operating between Chicago, Detroit, and Pontiac, are financially supported by the State of Michigan, as required under the Passenger Rail Investment and Improvement Act of 2008 (PRIIA). PRIIA established a legislative requirement that states served by intercity passenger trains with routes of less than 750 miles must provide financial support for those services, under a cost allocation formula established by Amtrak.

Until 2019, Indiana had a fifth Amtrak service, the *Hoosier State*, which ran between Indianapolis and Chicago four days per week, with funding provided by the State of Indiana and local governments. (Amtrak's long-distance *Cardinal* train provided service between Indianapolis and Chicago on the three days when the *Hoosier State* did not operate.) However, the state withdrew its support for the service in its 2020-2021 budget. The *Hoosier State* made its final run on June 30, 2019, the last day of the state's fiscal year. Table 2-7 displays intercity passenger routes in Indiana.



Table 2-7 – Intercity Passenger Routes Serving Stations in Indiana

Route	Type of Service	Total Route Mileage	Approx. Mileage in Indiana	Service Frequency (each direction)	End Point Stations	Stations in Indiana
Cardinal	Long-Distance	1,147	225	One train three days per week in each direction	New York, NY and Chicago, IL	Connersville, Indianapolis, Crawfordsville, Lafayette, Rensselaer, Dyer
Capitol Limited	Long-Distance	780	140	One train daily in each direction*	Washington, DC and Chicago, IL	Waterloo, Elkhart, South Bend
Lake Shore Limited	Long-Distance	959 (New York to Chicago) 1,018 (Boston to Chicago)	140	One train daily in each direction with cars to/from Boston and New York coming together at Albany-Rensselaer, NY*	Boston, MA, New York, NY and Chicago, IL	Waterloo, Elkhart, South Bend
Wolverine	Michigan state-supported	304	48	Three trains daily in each direction, but only one westbound and two eastbound trains stop at Michigan City, and two westbound and one eastbound trains stop at Hammond-Whiting	Chicago, IL and Pontiac, MI	Michigan City, Hammond-Whiting

Source: Amtrak

(*) Note: In October 2020, Amtrak reduced the frequency of the long-distance *Capitol Limited* and *Lake Shore Limited* trains from daily to three days per week in each direction, owing to a decrease in travel demand resulting from the COVID-19 pandemic. Amtrak restored daily service to both trains in mid-2021.

In addition, several Amtrak routes pass through northwest Indiana without making any station stops in the state. Indiana residents that would like to use these services could access stations in Michigan or Illinois. These routes are summarized in Table 2-8. Indiana also contains several Amtrak support facilities. This includes Amtrak’s primary locomotive and railcar heavy maintenance and repair facility, located in Beech Grove southeast of Indianapolis, employing approximately 500 staff. The Beech Grove shop forces conduct preventative maintenance on P32 and P42 locomotives across the Amtrak system. This location also performs heavy overhaul, periodic maintenance, repainting, and other upkeep on a wide range of coaches, food cars, sleepers, baggage cars, and locomotives.



Beech Grove also supplies components to other Amtrak facilities, including couplers, overhauled air conditioners, overhauled air brake valves, and about 300 other types of components unavailable elsewhere. More than 11,000 such components were produced in FY19.

The Indianapolis Distribution Center (IDC) is Amtrak’s largest material and supply facility. Using state-of-the-art technology, 16,000 stock-keeping-units are inventoried electronically to prevent issues innate to manual cataloging and keep the stock instantaneously updated. The IDC is conveniently located less than a mile from the Beech Grove shops. It employs approximately 30 personnel. Material for all purposes, from coach seats to toilet paper and locomotive parts, are distributed from the IDC to 31 Amtrak terminals nationwide.⁶⁴

Table 2-8 – Intercity Passenger Routes Passing through Indiana without Stations in the State

Route	Service Frequency (each direction)	End Point Stations	Stations in Indiana
Blue Water	One train daily in each direction	Chicago, IL and Port Huron, MI	Does not stop in Indiana. Closest stations are Chicago, IL; New Buffalo, MI; and Niles, MI
Pere Marquette	One train daily in each direction	Chicago, IL and Grand Rapids, MI	Does not stop in Indiana. Closest stations are Chicago, IL and St. Joseph-Benton Harbor, MI

Source: Amtrak

As shown in Figure 2-19, passenger rail services within Indiana are provided over three corridors: one in the northwest corner of the state (used by the *Wolverine* service), another that crosses northern Indiana east-west (used by the *Lake Shore Limited* and the *Capitol Limited* services), and another southeast to northwest (used by the *Cardinal* service). Amtrak owns and operates 97 miles of the *Wolverine* service route between Porter, Indiana, and Kalamazoo, Michigan, of which 17 miles are within Indiana. Additional connecting service is provided by the Amtrak Thruway Bus Service, which includes dedicated buses that are coordinated with train schedules and wait for train arrivals and departures.

⁶⁴ Amtrak. Amtrak Fact Sheet Fiscal Year 2019 – State of Indiana



Figure 2-19 – Intercity Passenger Rail Routes in Indiana



Source: HDR Analysis of Amtrak Data

2.4.2 Commuter Rail

Commuter rail within Indiana is provided by NICTD, which operates the South Shore Line service between Millennium Station in Chicago and the South Bend International Airport in South Bend (Figure 2-20). The South Shore Line’s 90-mile route comprises 75 miles of NICTD owned and controlled track between the South Bend International Airport station in South Bend and 115th Street in Chicago, near the Metra Electric District Kensington station. NICTD owns 69 route miles in Indiana and leases 6 miles in perpetuity between the Illinois/Indiana state line and merges with Metra.⁶⁵ South Shore Line trains operate on 14 miles of Metra Electric District right-of-way in Chicago from 115th Street to Millennium Station. NICTD is governed by a Board of Trustees representing the four Indiana counties served by the South Shore Line, as well as two board members appointed by the governor of Indiana. The INDOT commissioner serves as chairman of the board. It was created in 1977 and operated but did not own the line until 1989 when NICTD took ownership of the South Shore Line following the freight operator's bankruptcy that had owned the line.

Figure 2-20 – South Shore Line Map



Source: Northern Indiana Commuter Transportation District

Commuter trains on the South Shore Line are powered through an electric catenary system. The line is dispatched using Centralized Traffic Control. The western portion of the line is double tracked to a point just east of Gary Metro Center. East of this point, the line is primarily single track, which has

⁶⁵ Northern Indiana Commuter Transportation District. Comprehensive Annual Financial Report 2018 and 2019



constrained NICTD's ability to expand service frequencies. As a result, in 2016, NICTD launched its Double Track Northwest Indiana capacity improvement project, which will add a second main track to the single-tracked segments between Gary and Michigan City, upgrade five stations, and realign the tracks through Michigan City by replacing a single-track segment that runs in the middle of a city street with a new double-tracked rail alignment.⁶⁶ The project will reduce trip times, improve reliability, and enable NICTD to add more frequencies. As of late 2020, the Double Track NWI Project was estimated to be completed in September 2023.⁶⁷

NICTD began construction on another expansion project on October 29, 2020, the West Lake Corridor project.⁶⁸ This project will construct a new 7.8-mile branch line extension of the South Shore Line system, from a connection with the current commuter rail line at Hammond, Indiana, southward to Dyer, Indiana, through a rapidly growing area of Lake County. Four new stations will be constructed, three on the West Lake Corridor at South Hammond, Munster, Munster/Dyer, and Hammond west. The extension joins the existing mainline. The new Hammond station, called Hammond Gateway, will replace the existing South Shore Line station in Hammond and will serve as a transfer point for passengers on West Lake Corridor trains during off-peak periods to connect to South Shore Line trains to and from Chicago. During peak commuting periods, direct service will be provided between Dyer and Chicago. NICTD anticipates beginning revenue service on the West Lake Corridor in 2025.⁶⁹ NICTD temporarily reduced service levels in March 2020, responding to a loss of ridership from the COVID-19 pandemic, but returned to its full regular schedule on June 8, 2020, as commuter and leisure ridership began to rebound.⁷⁰ Under its regular service schedule, effective with its June 8, 2020 timetable, NICTD operates 43 trains each weekday and 20 trains per day on the weekend. Each weekday, 19 trains travel between Chicago and Michigan City (Carroll Ave.). Ten travel the entire length of the line between Chicago and South Bend Airport, ten between Gary and Chicago, and four between South Bend Airport and Michigan City (Carroll Ave.). (See Tables A-9 and A-10 in Appendix A.)

⁶⁶ Northern Indiana Commuter Transportation District. Double Track NWI, Project Overview. Retrieved from: <https://www.doubletrack-nwi.com/about/project-overview>

⁶⁷ Northern Indiana Commuter Transportation District. Double Track NWI, FAQs. Retrieved from: <https://www.doubletrack-nwi.com/about/faqs>

⁶⁸ Mass Transit, South Shore West Lake Corridor project breaks ground, finalizes \$345.5 million FFGA, October 29, 2020. Retrieved from: <https://www.masstransitmag.com/rail/infrastructure/article/21160477/south-shore-west-lake-corridor-project-breaks-ground-finalizes-3455-million-ffga>

⁶⁹ Northern Indiana Commuter Transportation District. West Lake Corridor, Frequently Asked Questions. Retrieved from: <http://www.nictdwestlake.com/faqs>

⁷⁰ Northern Indiana Commuter Transportation District. South Shore Line Outlines Health and Safety Protocol for Return to Normal Service, June 4, 2020. Retrieved from: <https://www.mysouthshoreline.com/news/item/291-south-shore-line-outlines-health-and-safety-protocol-for-return-to-normal-service>



The Chicago South Shore and South Bend Railroad, a subsidiary of Anacostia Pacific Holdings, provides freight service over the line through an agreement with NICTD.

2.4.3 Excursion/Tourist Railroads

Excursions or tourist railroads offer passenger rail service whose purpose is not transportation but rather entertainment. Indiana has five tourist railroad operations that provide regularly scheduled operations on the national rail network. There are two other rail attractions offering train rides: one offers rides on isolated purpose-built tracks, the other only provides the equipment. All these tourist-oriented operators draw visitors from across the country who want to travel by rail on vintage equipment through scenic countryside. Some railroads offer themed excursions, such as dinner trains with catered meals, or sponsor event weekends for families. Tourist railroads help contribute to the local economy through the tourist spending they attract.

Tourist railroads own or operate over 51 unique miles of the Indiana rail network not shared with freight, preserving rail corridors that otherwise might have been taken out of service or abandoned. Other tourist railroads operate on tracks also used for local freight service and owned by short line railroads or public agencies. Because they carry passengers, excursion operators must maintain tracks at FRA track Class 1 (15 mph for passenger trains) or better. The following operators provide excursion railroad service in Indiana.

2.4.1.1 Tourist Railroads with Regular Scheduled Operations on the National Rail Network

2.4.1.1.1 FRENCH LICK SCENIC RAILWAY

The French Lick Scenic Railway operates excursions and special event trains from French Lick southward for 9 miles through the Hoosier National Forest to Jasper, including a ride through the second longest railroad tunnel in Indiana. The operation is part of the Indiana Railway Museum, located in French Lick. In addition to regular excursions, the railroad operates dinner trains and wine tasting trains. Polar Express trains each Christmas season that includes a visit from Santa Claus. The Indiana Railway Museum owns 16 miles of former Southern Railway and Monon Railroad track from West Baden south through French Lick to Dubois. (Dubois County Railroad operates a contiguous, freight-only segment of the rail line southward from Dubois.) Although excursions were suspended in 2020 because of COVID-19 concerns, the railroad plans to resume service in 2021, its 60th year of operation.

<https://frenchlickscenicrailway.org>

2.4.1.1.2 HOOSIER VALLEY RAILROAD MUSEUM

The Hoosier Valley Railroad Museum operates train excursions from the historic railroad town of North Judson (where four railroad's main lines once crossed) through 5 miles of bucolic Indiana farmland to English Lake. Visitors can ride aboard restored railroad cabooses or an open-air sightseeing car. The museum also offers a Guest Engineer Program that provides opportunities for visitors to operate a working locomotive under a licensed locomotive engineer's supervision. A scaled-down schedule of excursions began during the late summer and fall of 2020, with ticket sales



limited to allow for social distancing. The former Chesapeake & Ohio track used for excursions is owned by the town of North Judson, which also owns contiguous segments of the track to La Crosse, Wellsboro, and Malden that are leased by freight operator Chesapeake & Indiana.

<http://www.hoosiervalley.org>

2.4.1.1.3 NICKEL PLATE EXPRESS

The Nickel Plate Heritage Railroad provides weekend excursions under Nickel Plate Express's name over 12 miles of track between Noblesville and Atlanta, once operated by the New York, Chicago & St. Louis Railroad (nicknamed the Nickel Plate Road). Operations began in 2018, featuring a streamlined locomotive and bi-level passenger cars built in the 1950s. The railroad offers themed rides such as brunch trains and wine tastings, and caboose rides that appeal to families. Excursions continued in 2020 with enhanced safety and cleaning protocols. With ticket sales restricted to 50 percent of the seating capacity for social distancing. The Hoosier Heritage Port Authority owns the rail line.

<https://nickelplateexpress.com>

2.4.1.1.4 OHIO RIVER SCENIC RAILWAY

Indiana's newest excursion operation is the Ohio River Scenic Railway, which began offering weekend train rides in mid-2020 on two different routes in Southern Indiana's Ohio River valley. On most weekends, excursions operate between Tell City and Troy, over 5 miles of track owned by the Perry County Port Authority. (Hoosier Southern Railroad provides freight service over the line.) On select weekends, excursions operate from Evanston to Troy over about 5 miles of track. The diesel-powered trains operate with equipment built in the 1950s. Eventually, the railroad plans to provide excursions from Tell City to Lincoln City over 22 miles of Perry County Port Authority track.

<https://www.ohiorivertrain.com>

2.4.1.1.5 WHITEWATER VALLEY RAILROAD

The Whitewater Valley Railroad is an operating museum dedicated to preserving a historic branch line railroad, the restoration of railroad equipment, and the presentation of educational railroad programs. Trains operate from Connersville through the Whitewater River valley to Metamora's historic canal town, where passengers disembark for a visit before returning to Connersville by train. The railroad runs numerous themed excursions and holiday specials throughout the year. Although some events were canceled in 2020, the railroad continued operations with enhanced safety and cleaning protocols in place. Whitewater Valley Railroad's equipment includes coaches built in the 1920s and 1930s, cabooses, and the only remaining operational diesel locomotive built by the Lima-Hamilton Company. The railroad owns 19 miles of former New York Central track between Metamora and Connersville. (A contiguous section of track from Connersville northward is owned and operated for local freight rail service.)

<https://whitewatervalleyrr.org>



2.4.1.2 Other Rail Attractions Offering Train Rides

2.4.1.2.1 HESSTON STEAM MUSEUM

The Hesston Steam Museum is a living history museum of steam-powered equipment owned and operated by the LaPorte County Historical Steam Society. Based in Hesston, the museum has four different miniature railroads custom-built or relocated to the museum grounds, offering train rides powered by miniature and narrow-gauge steam locomotives. The museum's centerpiece is a 2.5-mile narrow-gauge railroad line that loops around the property and is configured with three rails, permitting both two-foot-gauge and three-foot-gauge trains to run. The museum suspended all public operations until further notice in 2020 during the COVID pandemic.

<https://hesston.org>

2.4.1.2.2 FORT WAYNE RAILROAD HISTORICAL SOCIETY

Although it does not own any track, the Fort Wayne Railroad Historical Society operates one of the most famous steam locomotives in the United States – No. 765. Built in 1944 with a 2-8-4 wheel arrangement and a high-horsepower design, No. 765 pulled priority, fast freight trains on the Nickel Plate Railroad. The society restored No. 765 from a static display in a Fort Wayne city park to a fully operable mainline steam locomotive in 1979. Since then, the group has run steam-powered excursions featuring No. 765 across the United States, attracting hundreds of thousands of passengers and spectators. Norfolk Southern Railway used the locomotive as part of its 21st Century Steam Program from 2012 to 2015. The society is also an active participant in developing a new tourist railroad operation and entertainment complex along the Fort Wayne riverfront, to be called Headwaters Junction.

<https://fortwaynerailroad.org>

2.5 Passenger Rail Stations

2.5.1 Intercity Passenger Rail Stations

Indiana's eleven intercity passenger rail stations can be broadly categorized under three different types of facilities. Six stations have station buildings with waiting rooms (Elkhart, Hammond-Whiting, Indianapolis, Lafayette, South Bend, and Waterloo); four stations have platforms with enclosed shelters (Connersville, Crawfordsville, Dyer, and Rensselaer); and one station has a platform with an unenclosed shelter (Michigan City).

Three of Indiana's stations (Elkhart, Lafayette, and Waterloo) occupy historic structures, and one station (Indianapolis) is a multimodal hub serving both intercity buses and passenger trains. Within the past ten years, new station facilities have been constructed at Rensselaer (2013) and Dyer (2014). In 2016, the city of Waterloo completed the restoration and relocation of its historic passenger



station, built in 1883, to serve intercity rail passengers once again.⁷¹ The restoration project was funded with a \$1.8 million federal TIGER grant. Only two of the stations are staffed: Indianapolis and South Bend. Both have checked baggage service.

Amtrak continues its efforts to renovate station platforms, structures, parking lots, and walkways to meet accessibility requirements under the Americans with Disabilities Act (ADA) of 1990. In 2019, Amtrak began the construction of accessibility modifications at the Hammond-Whiting station. Appendix A, Tables A-7 and A-8 provide more information on Indiana's intercity passenger rail stations.

2.5.2 Commuter Rail Stations

Appendix A, Tables A-9 and A-10 provide information on the 12 South Shore Line commuter rail stations in Indiana. Economic development and planning agencies across the United States recognize the role that commuter rail stations can play in promoting residential growth and economic development. The NICTD *20-Year Strategic Business Plan* identified the benefits of constructing transit-oriented developments (TOD) around commuter rail stations to create residential housing clusters and commercial development from which transit agencies can draw riders. The plan recognized that the responsibility for planning these developments primarily falls to local jurisdictions.⁷² In June 2020, the Federal Transit Administration awarded NICTD a \$1.2 million planning grant to consider effective ways of promoting transit-oriented development around South Shore Line stations.⁷³ The Northwest Indiana Regional Development Authority will carry out the planning project. This regional development authority has also received approval from the Indiana Legislature to establish tax-incremental financing districts in the corridor to generate revenue for TOD-supportive infrastructure near commuter rail stations.

NICTD owns most of the existing Indiana commuter rail stations. Three stops in Indiana are flag stops (Gary/Chicago Airport, Beverly Shores, and Hudson Lake) where waiting passengers must activate a strobe light alerting the approaching train's operator to stop at the station. Two stations in Indiana are staffed (South Bend Airport and Carroll Avenue Michigan City) as is Millennium Station in Chicago, and ten Indiana stations have ticket vending machines.⁷⁴ At stations with neither ticket vending machines nor ticketing staff, boarding passengers can pay cash fares to the train crew.

⁷¹ Inside Indiana Business. Waterloo to Dedicate Renovated, Relocated Train Station, June 24, 2016. Retrieved from: <https://www.insideindianabusiness.com/story/32299022/waterloo-to-dedicate-renovated-relocated-train-station>

⁷² Northwest Indiana Regional Development Authority. 20-Year Strategic Business Plan, May 2014.

⁷³ Chicago Tribune. Federal grants add \$1.2M for housing, business development near South Shore stations, June 12, 2020. Retrieved from: <http://www.chicagotribune.com/suburbs/post-tribune/ct-ptb-nictd-federal-grant-st-0615-20200612-vnikcbdarnd4hnq7olsqcq4vuu-story.html>

⁷⁴ Northern Indiana Commuter Transportation District. Tickets & Fares. Retrieved from: <https://www.mysouthshoreline.com/tickets/fares>



Although parking remains a vital issue to the ridership capacity of NICTD stations, most stations have transit connections. All except the South Bend Airport Station are in the Central Time Zone.

2.6 Passenger Rail Ridership and Performance

2.6.1 Intercity Passenger Rail Ridership and Performance

Three of the four intercity passenger rail services currently operating in Indiana (the *Cardinal*, *Capitol Limited*, and *Lake Shore Limited*) are long-distance trains operating between Chicago and the East Coast cities of Washington, D.C., New York, and Boston. The schedules are designed to serve longer-distance travel markets along each train's route, with daytime or evening departures from each originating city and an overnight journey timed for a next-day arrival at the terminating city. The schedules allow for daytime connections at Chicago to and from other Amtrak trains for cross-country trips. Amtrak's westbound long-distance trains are timed to serve Indiana stations in the early to mid-morning hours with a mid-morning arrival at Chicago; eastbound long-distance trains depart Chicago in the evening, serving Indiana stations during the evening and late-night hours.

The fourth intercity passenger service, the *Wolverine* trains, provides three daily round-trip frequencies between Chicago, Detroit, and Pontiac. However, only a few trains stop at the two Indiana stations along the route, Hammond-Whiting and Michigan City. In 2019, *Wolverine* schedules were timed for two Detroit-bound trains to stop at one or both Indiana stations, with one train stopping in the morning. One train stops in the evening. Two Chicago-bound trains are operating during the afternoon and evening stop at one or both Indiana stations.

This section provides ridership and performance statistics of intercity passenger trains in Indiana through Fiscal Year 2019. The statistics include ridership and performance information for the state-supported *Hoosier State* service between Indianapolis and Chicago, which was discontinued on June 30, 2019.

- On-time performance (OTP). At 83 percent of trains arriving on-time, overall system-wide endpoint on-time performance in 2012 was the best Amtrak had achieved since at least 1990.⁷⁵ Performance in 2013 was almost as favorable at 82.3 percent. But in 2014, the growth of crude-by-rail plus other factors caused the U.S. rail network to become congested. On-time performance deteriorated to 72.4 percent in 2014 and remained low in 2015 at 71.2 percent. In 2016, on-time performance rose to 79.1 percent, but in subsequent years has fluctuated between 73.0 percent and 75.1 percent through 2019. Similarly, ridership at stations within Indiana rose from 2015 to 2017, but since then has declined.
- Gasoline prices. Train travel is less fuel-intensive compared to automobile travel. Average retail prices of gasoline declined 31 percent between 2013 and 2015.⁷⁶ This caused some

⁷⁵ U.S. Bureau of Transportation Statistics

⁷⁶ U.S. Energy Information Administration.



passengers to shift from train travel as the costs of automobile travel declined. Following that decline, gasoline prices rose 9.1 percent in 2016 and 10.7 percent in 2017, the same years that intercity passenger rail ridership in Indiana was increasing.⁷⁷ However, ridership at Indiana stations began to decline again in 2018, when gasoline prices fell 2.1 percent. Gasoline prices rose 7.9 percent in 2019, and total ridership on trains serving Indiana also grew in 2019. However, passenger rail trips made to and from Indiana stations continued to decline in 2019, as on-time performance fell, suggesting that Indiana travelers considered both reliability and trip cost as factors in choosing whether or not to travel by rail.

Ridership on the *Hoosier State* and the *Cardinal* services may also have been affected by the withdrawal of federal funding for *Hoosier State* service effective October 2013 and the brief period of uncertainty that followed.

Table 2-9 and Table 2-10 display trends for riders that got onto or off of trains within Indiana. Indianapolis is Indiana's busiest station, followed by Waterloo. Both tables display trends according to Amtrak's Fiscal Years (October 1 through September 30). The results reported in the Fiscal Year 2019 capture 12 months of ridership, which includes three months of data after the discontinuance of the *Hoosier State*.

⁷⁷ US Inflation Calculator. Gasoline Inflation in the United States (1968-2020). Retrieved from: <https://www.usinflationcalculator.com/inflation/gasoline-inflation-in-the-united-states>



Table 2-9 – Ridership Trends of Amtrak Trains in Indiana (Ons and Offs Within Indiana) Compared with Total Ridership by Train

Service	2015	2016	2017	2018	2019
Cardinal					
Ons and Offs Within Indiana	28,886	29,067	30,551	27,916	26,750
Total Ridership	103,633	104,831	112,439	96,710	108,935
Hoosier State*					
Ons and Offs Within Indiana	26,750	30,558	30,479	28,975	21,675
Total Ridership	29,703	29,488	29,504	27,876	20,853
Capitol Limited					
Ons and Offs Within Indiana	31,898	32,487	32,685	32,252	31,054
Total Ridership	226,240	228,444	231,214	219,033	209,578
Lake Shore Limited					
Ons and Offs Within Indiana	30,675	30,305	34,366	32,359	30,503
Total Ridership	356,898	387,853	388,722	337,882	357,682
Wolverine					
Ons and Offs Within Indiana	11,215	9,525	10,025	8,508	7,829
Total Ridership	465,627	411,625	459,106	483,670	501,124

Source: Amtrak

*Note: The Hoosier State was in operation for 9 of the 12 months calculated for FY 2019 ridership.

Table 2-10 – Intercity Passenger Rail Ridership by Station and Route – Ons and Offs (October 2018 – September 2019)

Station	Capitol Ltd.	Cardinal	Hoosier State*	Lake Shore Ltd.	Wolverine	Grand Total
Connersville		448				448
Crawfordsville		2,618	2,370			4,988
Dyer		1,744	1,247			2,991
Elkhart	11,293			9,338		20,631
Hammond-Whiting					5,167	5,167
Indianapolis		14,251	10,686			24,937
Lafayette		6,750	6,557			13,307
Michigan City					2,662	2,662
Rensselaer		939	815			1,754
South Bend	9,513			10,418		19,931
Waterloo	10,248			10,747		20,995
Grand Total	31,054	26,750	21,675	30,503	7,829	117,811

Source: Amtrak

*Note: The Hoosier State was in operation for 9 of the 12 months calculated for FY 2019 ridership.



Table 2-11 shows the change in All-Stations on-time performance of intercity passenger trains serving Indiana between FY 2018 and FY 2019. The table measures the percentage of trains that arrived at stations within 15 minutes of schedule. The *Lake Shore Limited* was the only train to register an improvement in reliability in 2019.

Table 2-11 – All-Stations On-Time Performance

Train	2018	2019	Change
Cardinal	53.5%	50.0%	-3.5
Hoosier State	78.8%	n/a	n/a
Capitol Limited	40.1%	36.5%	-3.6
Lake Shore Limited	40.0%	48.6%	+8.6
Wolverine	64.0%	51.8%	-12.2

Source: Amtrak Indiana State Facts Sheets, 2018 and 2019

Section 207 of PRIIA requires that Amtrak and the FRA jointly develop route-specific performance measures to assess Amtrak operations, to provide Amtrak and government agencies with an indication of where improvements are required. Section 207 also includes targets for each of these performance measures. The most recent FRA/Amtrak performance measures cover the period through September 30, 2016 (fourth quarter of the federal fiscal year). Not all metrics are specific to Amtrak routes, and not all information is available, but those performance metrics that are both applicable to specific Amtrak routes and available are shown in Table 2-12.

Table 2-12 – PRIIA Section 207 Amtrak Performance Metrics

Type of Metric	Performance Metric
Financial	Change in percentage of fully allocated operating cost covered by passenger revenue
	Passenger-miles per train-miles
On-Time Performance	Change in Effective Speed
	Endpoint On-Time Performance
	All-Station On-Time Performance
	Host-Railroad Delay Minutes per 10,000 Train-Miles
	Amtrak Responsible Delay Minutes per 10,000 Train-Miles
Other Service Quality	Amtrak Customer Service Index – Overall Service
	Amtrak Customer Service Index – Amtrak Personnel
	Amtrak Customer Service Index – Information Given
	Amtrak Customer Service Index – On-Board Comfort
	Amtrak Customer Service Index – On-Board Cleanliness
	Amtrak Customer Service Index – On-Board Food Service

Source: PRIIA Section 207 Website

Two metrics are used to track financial performance. One reflects the percentage of fully allocated operating costs covered by passenger-related revenue. This statistic reflects the extent to which Amtrak routes pay for themselves. Amtrak reports recovery ratios, both including and excluding state



subsidies. Results shown in Table 2-13 exclude state subsidies in the recovery ratio. The performance standard is an annual improvement over two-year rolling averages. As shown below, the *Hoosier State* service’s cost recovery ratio was low to begin with and declined further in its final year of operation. Table 2-13 presents the two-year averages of intercity passenger train cost recovery ratios through fourth quarter FY 2019 (the final year that the *Hoosier State* was in operation).

Table 2-13 – Change in Percentage of Fully Allocated Operating Cost Covered by Passenger Revenue

Train	October 2016 – September 2018	October 2017 - September 2019	Change
Cardinal	33%	32%	-1%
Hoosier State	20%	17%	-3%
Capitol Limited	43%	43%	0%
Lake Shore Limited	46%	45%	-1%
Wolverine	68%	70%	2%

Source: PRIIA Section 207 Website

Table 2-14 displays the results of the other financial metric, passenger-miles per train-mile. This reflects Amtrak trains' load factor (i.e., how many people are on a train at any given time). The performance standard is an annual improvement of two-year rolling averages. The results suggest that load factors have generally declined, except for the Michigan-supported *Wolverine* service.

Table 2-14 – Passenger-Miles per Train-Mile

Train	October 2016 – September 2018	October 2017 – September 2019	Change	Percentage Change
Cardinal	115	109	-6	-5%
Hoosier State	56	54	-2	-4%
Capitol Limited	179	169	-10	-6%
Lake Shore Limited	197	186	-13	-6%
Wolverine	152	159	7	5%

Source: PRIIA Section 207 Website

The *Hoosier State*'s declines in ridership, farebox recovery (its ability to use the revenue to pay for operating expenses), and load factors, as seen in Table 2-13 and Table 2-14, were significant factors that prompted the Indiana General Assembly to discontinue its funding for the state-supported passenger train.

The FRA and Amtrak developed the following metrics to evaluate route performance in terms of on-time performance and train delays:

- Change in Effective Speed, to be calculated on a rolling four-quarter basis and compared to a fixed FY 2008 baseline
- Percentage of trains on-time at the endpoint of the route
- Percentage of trains on-time all stations on the route



The standard for OTP is 80 percent. Amtrak defines OTP as the total number of trains arriving on-time at a station divided by the total number of trains operated on that route. A train is considered on-time if it arrives at the final destination within an allowed number of minutes, or tolerance, of its scheduled arrival time.⁷⁸ Table 2-15 provides third quarter FY 2019 OTP statistics for train routes through Indiana (the final quarter that the *Hoosier State* was in operation). The results suggest that train speeds have improved since FY 2008 for each route but the *Capitol Limited*. No routes met the 80 percent OTP standard. Red in Table 2-15 indicates that the standard was not met.

Table 2-15 – On-time Performance Statistics for Intercity Passenger Routes Serving Indiana

Train	Change in Effective Speed (mph) FY2008 to 12 months ended 6/19	Endpoint OTP 3Q FY2019	All-Stations OTP 3Q FY2019
Cardinal	0.5	47.4%	51.6%
Hoosier State	4.8	76.0%	72.1%
Capitol Limited	-1.0	30.8%	37.7%
Lake Shore Limited	0.3	61.5%	54.4%
Wolverine	4.7	30.8%	46.6%

Source: PRIIA Section 207 Website

On November 16, 2020, FRA published a final rule establishing metrics and minimum standards for measuring the performance and service quality of intercity passenger trains. Metrics and standards were established for four categories of performance and service: on-time performance and train delays, customer satisfaction, cost recovery, and public benefits. Under the FRA’s final rule, on-time performance will be measured using a “customer on-time performance” metric, which will measure the percentage of intercity rail passengers who arrive at their detraining point, including intermediate stations, no later than 15 minutes after the published scheduled arrival time. The final rule requires Amtrak and its host railroads to certify Amtrak schedules, and sets a customer on-time performance minimum standard of 80% for any two consecutive calendar quarters. Performance measuring under the final standards will take effect on the first full calendar quarter after May 17, 2021.⁷⁹

The current Amtrak/FRA metrics in effect also consider the cause of delays:

- *Train interference* delays including freight train, passenger train, commuter train interference result from meeting or following other trains in the area.

⁷⁸ For example, trains traveling 250 miles or less are allowed a 10 minute tolerance, while trains over 550 miles are allowed a 30 minute tolerance, which is the maximum allowed.

⁷⁹ Federal Railroad Administration. FRA Publishes Final Rule Establishing Metrics and a Minimum Standard to Measure the Performance and Service Quality of Intercity Passenger Rail, November 16, 2020. Retrieved from: <https://railroads.dot.gov/newsroom/press-releases/fra-publishes-final-rule-establishing-metrics-and-minimum-standard-0>



- *Signal delays* are related to signal failures or signal maintenance. Included are delays from reduced speeds to allow safe operation due to the signal problems
- *Slow order delays* result from temporary reductions in allowable train speeds, except for heat or cold orders
- *Routing delays* are caused by delayed dispatch, diversions, late track bulletins, etc.

For routes that serve Indiana, host-railroad responsible delays are supposed to be no more than 900 minutes per 10,000 train-miles. As can be seen from Table 2-16, only a few Amtrak services through Indiana do not exceed the 900-minute standard for host-railroad delays.

Table 2-16 – Host-Railroad Responsible Delays in Minutes Delay per 10,000 Train-Miles 3rd Quarter FY 2019

Train	Host	Total Delay (Min)	Largest Delay Category		2nd Largest Delay Category	
			Cause	Minutes	Cause	Minutes
Cardinal	BBrRR	991	Passenger Train Interference	450	Slow Order Delays	168
	CSXT	731	Slow Order Delays	253	Freight Train Interference	192
	NS	1,857	Freight Train Interference	467	Commuter Train Interference	462
Hoosier State	CSXT	430	Freight Train Interference	200	Signal Delays	118
Capitol Limited	CSXT	955	Slow Order Delays	285	Freight Train Interference	281
	NS	2,220	Freight Train Interference	1,587	Passenger Train Interference	206
Lake Shore Limited	CSXT	876	Freight Train Interference	335	Routing	184
	MBTA	3,125	Commuter Train Interference	2,120	Signal Delays	337
	MNRR	2,930	Commuter Train Interference	970	Maintenance of Way	346
	NS	2,228	Freight Train Interference	1,463	Passenger Train Interference	402
Wolverine	Amtrak	1,288	Slow Order Delays	624	Passenger Train Interference	403
	CN	2,633	Freight Train Interference	1,049	Slow Order Delays	757
	MIDOT	792	Passenger Train Interference	365	Signal Delays	213
	NS	3,737	Freight Train Interference	2,511	Maintenance of Way	344

Source: PRIIA Section 207 Website



Amtrak and FRA have also determined a standard of 325 minutes or less per 10,000 train-miles for Amtrak responsible delays. As shown in Table 2-17, none of the services passing through Indiana were able to meet the standard. Values that exceed the standard are indicated in red.

- Passenger-related delays include all delays related to assisting passengers. These delays include holding a station departure for passengers boarding or detraining, checked baggage, and any necessary delays for providing appropriate assistance to disabled passengers.
- Locomotive and car failure refer to mechanical failure on all types of cars and locomotives.
- Hold for connection delays result from trains being held to accommodate delayed connections from other trains and buses.
- Crew & system delays relate to crews, including lateness, lone-engineer delays.

Table 2-17 – Amtrak Responsible Delays in Minutes Delay per 10,000 Train-Miles 3rd Quarter FY 2019

Train	Total Delay (Min)	Largest Delay Category		2 nd Largest Delay Category	
		Cause	Minutes	Cause	Minutes
Cardinal	559	Crew & System	160	Passenger Related	95
Hoosier State	446	Crew & System	274	Locomotive Failure	80
Capitol Limited	379	Passenger Related	126	Crew & System	106
Lake Shore Limited	400	Passenger Related	151	Crew & System	116
Wolverine	822	Crew & System	239	Miscellaneous Delays	239

Source: PRIIA Section 207 Website

Another performance metric relates to a customer satisfaction survey that Amtrak administers to its customers. The Amtrak Customer Service Index is derived from the survey responses. Topics cover a broad range of customer experiences on and off the train. Standards require that for most topics, a “very satisfied” rating is received from 80 percent of respondents; however, the standard for overall service is 82 percent. As shown in Table 2-18, the standard was met in all applicable categories for the *Hoosier State*, for overall service, and Amtrak personnel for all services.

Table 2-18 – Amtrak Customer Service Index for 3rd Quarter FY 2019

Train	Overall Service	Amtrak Personnel	Information Given	On-Board Comfort	On-Board Cleanliness	On-Board Food Service
Cardinal	72	80	70	73	54	62
Hoosier State	85	94	82	85	81	N/A*
Capitol Limited	66	80	64	72	66	52
Lake Shore Limited	67	81	63	70	57	54
Wolverine	69	84	69	74	61	60

Source: PRIIA Section 207 Website

* Although food was available on the *Hoosier State*, Amtrak did not survey or record CSI scores for on-board food service.



2.6.2 Commuter Rail

NICTD’s South Shore Line serves a region of Northwest Indiana containing an estimated 771,815 residents, 12 percent of the state’s total population. South Shore Line train schedules are weighted to commuter and business travel between Northwest Indiana and downtown Chicago. In a typical year, 85 percent of the trips made on NICTD occur on weekdays, and according to a 2018 rider survey, 70 percent of NICTD trips are work-related. Table 2-19 shows the past five years of NICTD ridership. Patronage has been declining approximately 1 percent to 3 percent per year during this period.

Table 2-19 – NICTD Ridership, 2015-2019

Year	2015	2016	2017	2018	2019
Total	3,617,266	3,504,080	3,455,963	3,400,196	3,283,603
Weekday	3,086,354	2,989,403	2,914,139	2,890,120	2,795,474
Weekend	530,912	514,677	541,824	510,076	488,129

Source: Northern Indiana Commuter Transportation District

NICTD’s overall on-time performance dipped below 80 percent in 2017, but it has consistently stayed between 80 and 85 percent in other years. A NICTD train is considered to be on-time when it arrives at its terminal within 5 minutes and 59 seconds of its scheduled arrival time. Reliability is higher during the week than on weekends when maintenance of way work could delay trains. Table 2-20 shows the past five years of on-time performance for NICTD’s trains.

Table 2-20 – NICTD On-Time Performance

Year	2015	2016	2017	2018	2019
Overall	n/a	81.8%	76.3%	84.4%	80.4%
Weekday	86.8%	82.4%	88.1%	86.6%	82.6%
Weekend	84.9%	79.3%	76.4%	73.6%	70.0%

Source: Northern Indiana Commuter Transportation District

The equipment used on South Shore Line commuter trains consists primarily of self-propelled electric multiple-unit railcars equipped with roof-mounted pantographs to draw electric current from overhead wires. NICTD’s revenue fleet consists of 72 self-propelled cars and ten non-powered trailer cars built between 1982 and 2009 by Sumitomo.

For the past five years, fares from NICTD ticket sales have provided between 40 and 50 percent of the revenue to pay annual operating expenses. Table 2-21 shows the change in farebox recovery between 2015 and 2019. According to the Bureau of Transportation Statistics, the average farebox



recovery for commuter rail systems in 2019 was 50.5 percent.⁸⁰ As of 2019, the operating subsidy per unlinked trip for NICTD was \$9.01.⁸¹

Table 2-21 – NICTD Ticket Revenues, Operating Expenses, and Farebox Recovery

Year	2015	2016	2017	2018	2019
Fare Revenues (\$ million)	\$20.7	\$21.4	\$22.2	\$22.8	\$22.5
Operating Expenses (\$ million)	\$44.5	\$48.1	\$48.5	\$51.2	\$52.1
Farebox Recovery	46.5%	44.4%	45.8%	44.5%	43.2%

Source: Northern Indiana Commuter Transportation District

In 2018, NICTD completed the installation of PTC equipment in its vehicles. In 2019, 30 of NICTD’s weekday trains were operating under PTC in Revenue Service Demonstration. NICTD met the federal deadline of December 31, 2020, for full PTC implementation, assisted by an \$8.1 million grant award from the FRA to help cover implementation expenses.

2.7 Impact of Passenger Rail in Indiana

The importance of passenger rail to Indiana is described in this section, covering Congestion Mitigation and Safety.

2.7.1 Congestion Mitigation

Commuter rail can reduce congestion, particularly since it removes peak-period auto trips. A report for NICTD estimates that the South Shore Line avoided 253,800 vehicle miles on northwest Indiana’s roadways each weekday in 2014.⁸² The report estimates that NICTD carries approximately 9 percent of all Lake County-to-Chicago commuters (7.8 percent of peak-hour VMT) and 12 percent of Porter County-to-Chicago commuters (3.7 percent of peak-hour VMT). Without NICTD, additional roadway capacity would be required to provide the same level of service.

More recently, NICTD conducted a rider survey of South Shore Line rail commuters in 2018 to better understand customer travel patterns, trip purposes, demographics, and rider perceptions of its service. The survey noted that the South Shore Line’s market catchment area is larger than its

⁸⁰ Federal Transit Administration. 2019 National Transit Summaries and Trends, December 31, 2020. Retrieved from: <https://www.transit.dot.gov/ntd/2019-national-transit-summaries-and-trends-ntst>

⁸¹ Federal Transit Administration's National Transit Database. Calculated as: (Operating Expenses – Fare and other Direct Revenues) / Annual Unlinked Trips.

⁸² West Lake Corridor and South Shore Line Strategic Planning Investments: A Regional Benefits Analysis, Revised January 27, 2014.

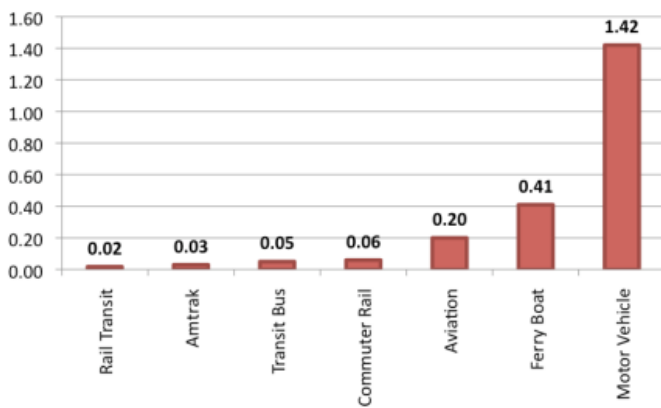


immediate four-county service area in Indiana. Although 76 percent of riders came from the four Northwest Indiana counties where the South Shore Line operates, another 5 percent of riders came from other Indiana counties, and 9 percent came from Michigan. More than 70 percent of survey respondents indicated that if South Shore Line service were not available, they would make the trip by automobile.⁸³

2.7.2 Safety

Both intercity passenger and commuter rail are safer modes per person-mile traveled than driving a car. Figure 2-21 shows that both Amtrak and commuter rail are many times safer for passengers than auto travel.

Figure 2-21 – Passenger Fatality Rates per 100 Million Passenger-Miles



Source: 2009 Rail Safety Statistics Report, Federal Transit Administration

The statistics in Figure 2-21 apply only to passengers. In contrast, most fatalities associated with passenger rail are not passengers. However, motorists and pedestrians struck at highway-rail grade crossings, or pedestrians struck while trespassing on railroad property. According to the U.S. Bureau of Transportation Statistics, total passenger rail miles (including commuter and intercity passenger service) in 2018 was about 19.0 billion.⁸⁴ According to the FRA, 275 fatalities were associated with passenger rail operations the same year.⁸⁵ Of these fatalities, 176 (64 percent) were related to trespass incidents, and 82 (30 percent) were related to highway-rail incidents. In Indiana in 2018, five fatalities were associated with passenger rail, three trespassers, and two at a highway-rail grade crossing.

⁸³ 2018 South Shore Line Onboard Passenger Survey

⁸⁴ Bureau of Transportation Statistics. U.S. Passenger-Miles. Retrieved from: <https://www.bts.gov/content/us-passenger-miles>

⁸⁵ Federal Railroad Administration, Office of Safety Analysis. Freight/Passenger Operations Ten Year Overview, October 31, 2020. Retrieved from: <http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/Query/TenYearFreightPassengerOperationsOverview.aspx>



2.8 Ongoing Projects and Programs to Improve Safety and Security

While rail is a relatively safe mode of transportation compared to highway travel, it is not risk-free. Between 2010 and 2019, 322 deaths in Indiana were associated with the rail system.⁸⁶ As shown in Table 2-22, just over one-third occurred at highway-rail grade crossings. The next highest cause of death was the Other category, defined as “events other than train accidents or crossing incidents that cause physical harm to persons,”⁸⁷ with a total of 103 deaths. Finally, deaths related to people trespassing on railroad property were responsible for 99 deaths during the same period.

Table 2-22 – Rail-Related Fatalities in Indiana

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Highway-Rail	9	10	13	15	10	12	11	12	17	11	120
Trespassers	6	13	11	15	9	11	8	9	8	9	99
Other	7	13	12	15	9	12	8	9	8	10	103
Total Fatalities	22	36	36	45	28	35	27	30	33	30	322

Source: FRA 10-Year Accident/Incident Summary

2.8.1 Highway-Rail Grade Crossing Safety

INDOT focuses on safety improvement efforts on public highway-rail grade crossings. As of 2020, Indiana has 5,564 public highway-rail and pathway grade crossings and an additional 2,072 private highway-rail grade crossings, which are privately owned and not under INDOT jurisdiction. Table 2-23 provides a summary of all at-grade crossings in Indiana. Indiana ranks fifth in the nation for the number of public highway-rail grade crossings behind Texas, Illinois, California, and Ohio. However, Indiana is much smaller geographically than other states that have a similar number of at-grade crossings. Measured in terms of crossings per roadway mile, Indiana has a higher density of crossings than any other state. Within Indiana, there is one public highway-rail grade crossing for every 17 miles of public roadway. The concentration of crossings is higher in certain parts of the state, especially in northwest Indiana.

⁸⁶ By comparison, 7,940 people died on Indiana roadways during a similar time period (2009-2018) according to statistics from INDOT’s 2018 Crash Fact Book. Retrieved from: <https://www.in.gov/cji/research/crash-statistics>

⁸⁷ FRA doesn’t provide a more detailed breakdown of the Other category.



Table 2-23 – Summary of Highway-Rail Grade Crossings in Indiana

Type	Number of Crossings	% of Total
Public Highway	5,541	72%
Public Pathway (Pedestrian Only)	23	<1%
Private	2,072	27%
Totals	7,636	100%

Source: FRA Highway-Rail Grade Crossing Inventory

As shown in Table 2-24, over one-third of public highway-rail crossings in Indiana are equipped with active warning devices consisting of flashing light signals and gates. When also considering highway-rail grade crossings that have been equipped with flashing light signals only, more than half of Indiana’s public highway-rail grade crossings have some form of active warning device.

Table 2-24 – Warning Devices at Public Highway-Rail and Pathway Grade Crossings in Indiana

Type	Number of Crossings	% of Total
Active — Four-Quadrant Gates and Flashing Light Signals	19	<1%
Active — Flashing Light Signals and Gates with Medians	86	2%
Active — Flashing Light Signals and Gates Only	2,150	39%
Active — Flashing Light Signals Only	964	17%
Passive — Crossbucks with Stop Signs	1,030	19%
Passive — Crossbucks Only	1,220	22%
Other/Unknown	95	2%
Totals	5,564	100%

Source: FRA Highway-Rail Grade Crossing Inventory

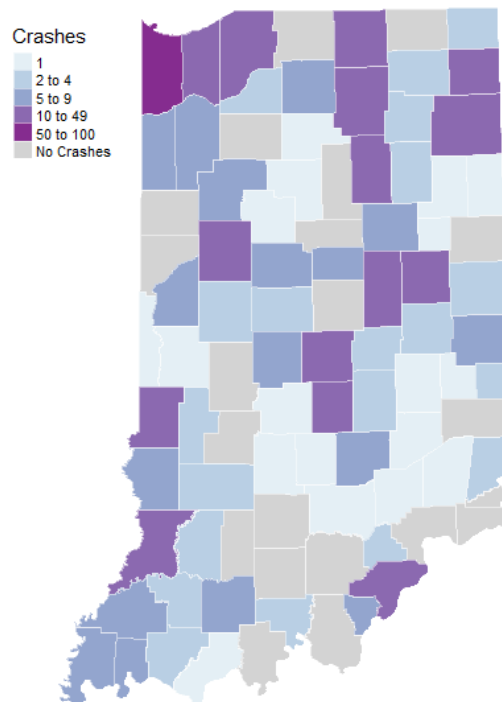
The FHWA has estimated that upgrading a crossing from passive warning devices to flashing light signals and gates reduces the risk of crashes by 88 percent while adding flashing light signals without gates reduces the risk by only 64 percent.⁸⁸ However, between 2015 and 2019, three-quarters of crashes occurred at crossings with active warning devices. Over half occurred at gated crossings (Table 2-22). Motorists often ignore the flashing light signals or drive around gates that indicate a train is approaching. More accident/incidents tend to occur at crossings with active warning devices because these crossings have higher vehicular traffic counts and higher numbers of train movements per day, increasing the potential for a collision. Additional safety improvements beyond entry gates are being implemented in Indiana and throughout the country to address these issues. These safety options include four-quadrant gates, which add a second pair of exit gates to entirely block the crossing, and medians on the roadway approaches, which prevent motorists from

⁸⁸ Federal Highway Administration, *Railroad-Highway Grade Crossing Handbook – 5 Selection of Alternatives*. Retrieved from: <http://toolkits.ite.org/gradecrossing/sec05.htm>

circumventing the gates while they are in the down position. Indiana currently has 19 crossings with four-quadrant gates and 86 crossings with gates and medians.

The highest concentrations of crashes correspond to the areas with the greatest concentration of crossings, namely Lake, Marion, and La Porte Counties. Figure 2-22 displays the total number of crashes by county between 2015 and 2019.

Figure 2-22 – Highway-Rail Grade Crossing Crashes by County (2015 – 2019)



Source: HDR Analysis of FRA Accident/Incident Data

The Rail Safety Improvement Act of 2008 required Indiana to develop and maintain an Action Plan that considers strategies to address highway-rail grade crossing safety. Indiana was one of 10 states required to develop an Action Plan due to a high number of accidents/incidents. The first Indiana Highway-Rail Grade Crossing Safety Action Plan closely examined the potential for crossing closures and grade separations at crossings with multiple crashes or crossings at high risk for accidents/incidents.

On December 14, 2020, FRA released a Final Rule requiring the remaining 40 states to develop Highway-Rail Grade Crossing Action Plans, and requires the initial 10 states to revise their plans.⁸⁹

⁸⁹ Federal Register, State Highway-Rail Grade Crossing Action Plans, December 14, 2020. Retrieved from: <https://www.federalregister.gov/documents/2020/12/14/2020-26064/state-highway-rail-grade-crossing-action-plans>

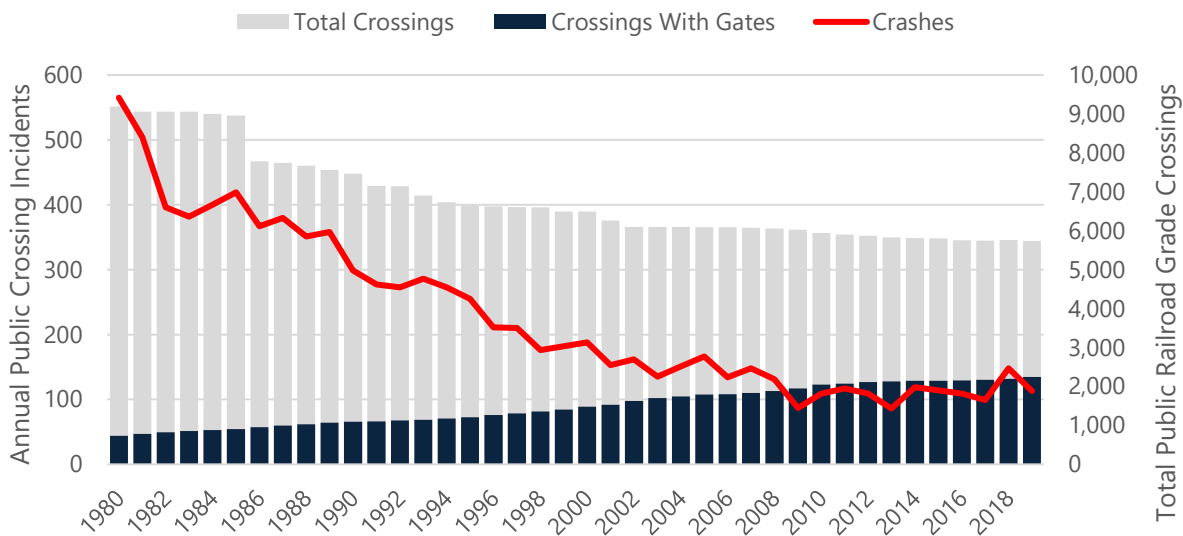


There are several approaches that INDOT takes to improve safety at highway-rail grade crossings:

- Crossing closure
- Grade separation
- Train-activated warning device improvement
- Passive warning device improvement

It is said that the safest crossing is no crossing at all. For that reason, INDOT seeks to curtail the construction of new crossings and actively seeks consolidation of crossings where it is feasible and reasonable to do so. Figure 2-23 shows the total number of public highway-rail grade crossings in Indiana from 1980 to 2019, which have decreased from approximately 9,000 to the current total of 5,564. The figure also highlights the increase in the number of crossings with gates and the decrease in the total number of annual accidents/incidents over this same period.

Figure 2-23 – Public Railroad Grade Crossings in Indiana (1980–2019)



Source: HDR Analysis of FRA Historic Grade Crossing Inventory Data

In 2016, Indiana Code 8-6-7.7-3.2 was revised to clarify that railroads may petition local government units to close crossings. The revision also allows the railroad to appeal the decision by a local unit of government if the government entity denied the railroad’s closure request. The railroad is now able to appeal this decision to an Administrative Law judge.

INDOT applies a portion of the state-funded Railroad Grade Crossing Fund to encourage the closure of redundant crossings. Communities receive a lump sum upon closing a public highway-rail grade crossing, which municipalities may use for any public purpose. INDOT Rail Programs Office staff look for potential crossings to close during ongoing field activities. Staff target crossings whose closures would not affect motorists significantly: for instance, those located close to other crossings with low motor-vehicle usage.

Grade separation eliminates the hazards of highway-rail grade crossings while improving both rail and highway traffic mobility. However, given that these projects usually cost \$5 million – \$15 million or more, the number of grade separations that can be completed with public funds in any given year is minimal. INDOT and local roadway owners advance grade-separation projects at locations where high volumes and high speeds of rail and roadway traffic make at-grade crossings with any type of warning device undesirable.

Train-activated warning device improvements (Figure 2-24) within Indiana are funded primarily through the federal Railway-Highway Crossings (Section 130) Program, under Title 23 U.S. Code Section 130. Funding through this federal program averages \$7.4 million per year, which funds improvements at approximately 20 locations. Projects can either upgrade from passive to the active warning or provide improvements to existing active warning devices.

Figure 2-24 – Typical Section 130 Program Project: New Train-Activated Flashing Light Signals, Bell, Gates, Overhead Cantilever, Constant Warning Time Circuitry



Source: INDOT

Passive warning device improvements typically consist of local public agencies providing advanced warning signs and visible pavement markings. Railroads can improve their passive protection by upgrading their crossbuck assemblies to include stop or yield signs, installing retroreflective tape, and providing adequate sight distance for persons approaching the crossing.

In 2018, INDOT launched their "Local TRAX" program that provides state matching funds to Indiana cities, towns, and counties to improve safety at highway-rail grade crossings. The program is discussed in Section 1.8.1.

The INDOT Rail Programs Office conducts about 1,500 on-site inspections of public highway-rail grade crossings each year to verify that the signage and pavement markings, rail and roadway sight views, grade-crossing surface conditions, and inventory updates meet federal and state requirements. When deficiencies are noted, railroads or road authorities are contacted to correct the problems.



The Indiana Operation Lifesaver program seeks to reduce deaths and injuries at highway-rail grade crossings and along railroad rights-of-way. This program partners with INDOT and railroads in the state. The program works to fulfill its mission by educating the public and improving driver and pedestrian behavior at highway-rail grade crossings.

2.8.2 Hazardous Materials

During the preparation of this Rail Plan, some stakeholders expressed concern over hazardous materials passing through their communities. As the AAR points out, 99.99 percent of hazardous material carloads are moved without a train accident-related release.⁹⁰

New rules have recently been established to reduce the risks of accidents involving hazardous and flammable materials. The new rules determined by the FRA and the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration require the establishment of the Rail Corridor Risk Management System, a routing model that analyzes and determines the safest and most secure route for transporting toxic-by-inhalation materials and crude oil. New tank car standards require tank cars that are better able to withstand accidents. The North Dakota Industrial Commission established rules requiring natural gas liquids to be removed from crude oil shipments before being shipped by rail. The intent is to make the crude oil shipped less volatile and reduce the fire risk if a tank car carrying crude oil is punctured. Because North Dakota has been the origin of a significant portion of crude-by-rail shipped in the United States, the North Dakota Industrial Commission rule could improve safety.

The railroad industry has implemented measures to help first responders in a rail accident involving hazardous materials. The industry has sponsored training workshops for first responders and has developed software applications that allow first responders to identify commodities shipped in specific railcars.

Within Indiana, Local Emergency Planning Committees are tasked with providing information about hazardous chemicals traveling through communities, coordinating hazardous material planning and preparedness, and developing hazardous material emergency response plans. Among the emergencies that these organizations plan and prepare for are hazardous material incidents involving rail.

Notably, since the publication of the previous State Rail Plan, crude oil shipments' modal distribution has changed substantially (Figure 2-25). Since peaking in 2014, a shipment of crude oil by rail has remained relatively stable, with only a slight increase from 2017 to 2019. In contrast, the shipment of

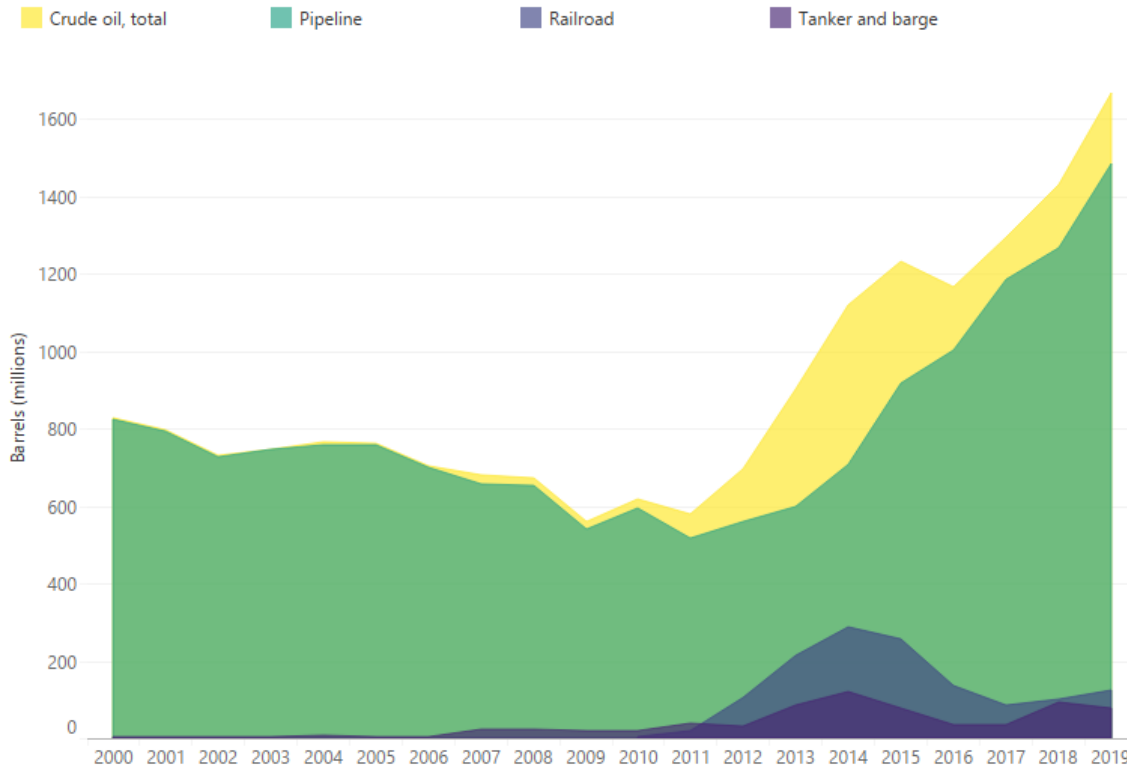
⁹⁰ Association of American Railroads. Freight Rail & Hazmat Safety. Retrieved from: <https://www.aar.org/issue/freight-rail-hazmat-safety>



crude oil via pipeline has more than doubled over this same period. Overall, recent studies on the safety of crude oil shipments have found shipment via pipeline to be much safer than via rail.⁹¹

Chapter 3 elaborates on how hazardous materials' commodity category is sizeable and significant, representing 21 percent of the state’s through movement in tonnage. In Chapter 4, hazardous materials are forecast to grow at 1.2 percent annually.

Figure 2-25 – Crude Oil Shipments by Mode



Source: U.S. Department of Energy, Energy Information Administration, Movements between PAD Districts, available at <https://www.eia.gov/petroleum/data.php#imports> as of May 2020.

Source: Bureau of Transportation Statistics⁹²

⁹¹ Fraser Institute. Safety in the Transportation of Oil and Gas: Pipelines or Rail?, August 13, 2015. Retrieved from: <https://www.fraserinstitute.org/research/safety-transportation-oil-and-gas-pipelines-or-rail>

⁹² Bureau of Transportation Statistics. Shipments of U.S. Crude Oil by Pipeline, Tanker and Barge, and Rail, May 2020. Retrieved from: <https://www.bts.gov/browse-statistical-products-and-data/freight-facts-and-figures/shipments-us-crude-oil-moved>



3 Demographic and Economic Growth Factors

Trends which impact both passenger and freight rail include factors such as demographic and economic growth, freight and passenger transportation changes, congestion to all transportation modes, and changes in future state land use. These factors all contribute to the projected demand and growth for both passenger and freight, although many of these factors are difficult to incorporate into demand forecasting. The following discussion provides a base for determining potential future rail service needs in Indiana.

3.1 Gross State Product

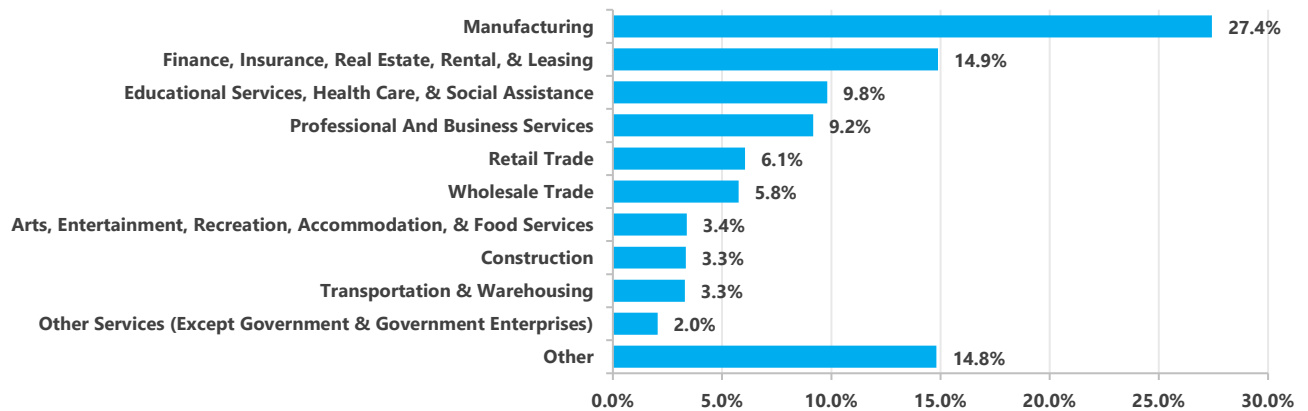
Indiana's real gross state product (GSP) — a measure of overall economic activity within the state — increased from \$264 billion (2012\$) in 2000 to \$332 billion (2012\$) in 2019 according to the Bureau of Economic Analysis (BEA). That growth represents a 25.9 percent increase, or an average compound annual growth rate of approximately 1.2 percent during this period, compared to the U.S. average of 2.0 percent.⁹³

The state has historically relied on manufacturing; Indiana is one of the largest automobile, automobile parts, and pharmaceutical producers in the country. From 2000 to 2019, as the manufacturing sector grew at a much slower pace than service industries like information, business, education, and finance, the state struggled to keep up with the nationwide pace of economic growth. Based on 2019 data, Indiana's manufacturing industry accounted for the highest share of GSP of any state, which was approximately 27.4 percent, and was notably higher than the U.S. average of 11.4 percent. Manufacturing's share of GSP has seen a slight increase from 27.0 percent in 2000, despite lower employment in the industry, due to the increase in specialized manufacturing. Figure 3-1 highlights the 10 major industries contributing to Indiana's GSP in 2019.

⁹³ U.S. Bureau of Economic Analysis. *Real GDP by State (Chained 2012 dollars)*.



Figure 3-1 – Top 10 Industries Contributing to Indiana’s GDP, 2019



Source: HDR Analysis of BEA Data. Real GDP by State (Chained 2012 dollars).

Based on 2017 data, which is the most recent data available for specific manufacturing sub-industries, output from the automobile and automobile parts manufacturing industry, which makes up about 18.1 percent of manufacturing output in the state today, has increased 82.7 percent in since 2000, compared to the 27.7 percent growth from manufacturing as a whole. Meanwhile, chemical-products manufacturing (primarily pharmaceuticals), which represents the largest component of manufacturing (about 20.9 percent), has decreased by 6.2 percent in the same time span.

In August 2020, the Indiana Economic Development Corporation (IEDC) and Conexus Indiana provided Manufacturing Readiness Grants totaling nearly \$2 million to 20 manufacturing companies via the Economic Activity Stabilization and Enhancement (EASE) program. The program’s goal is to “stimulate manufacturing investments that will position Hoosier operations, and the sector overall, for future growth and prosperity.”⁹⁴ These manufacturers are located in 16 counties and focus on various industries such as automotive, aerospace and defense, machinery and construction, furniture and home products, and health care and medical. They are expected to invest more than \$8.2 million in technology and equipment. This investment will enable an increase in capacity and modernizing operations.

Six of the 20 manufacturers have begun to increase operational investments in health care manufacturing technology in order to support critical COVID-19 pandemic response efforts.

⁹⁴ Conexus Indiana, State Awards 20 Manufacturing Readiness Grants to Indiana Businesses, August 19, 2020. Retrieved from: <https://www.conexusindiana.com/state-awards-20-manufacturing-readiness-grants-to-indiana-businesses>



While both mining and agriculture represent notably smaller shares of the Indiana economy, both sectors produce and consume commodities and are generally rail dependent. In 2019, mining was about 0.8 percent of the state's GSP, but the sector seems to be shrinking since 2000. Meanwhile, agriculture was about 1.2 percent of Indiana's economy in 2019 and has been experiencing an average annual growth of 3.0 percent since 2000.

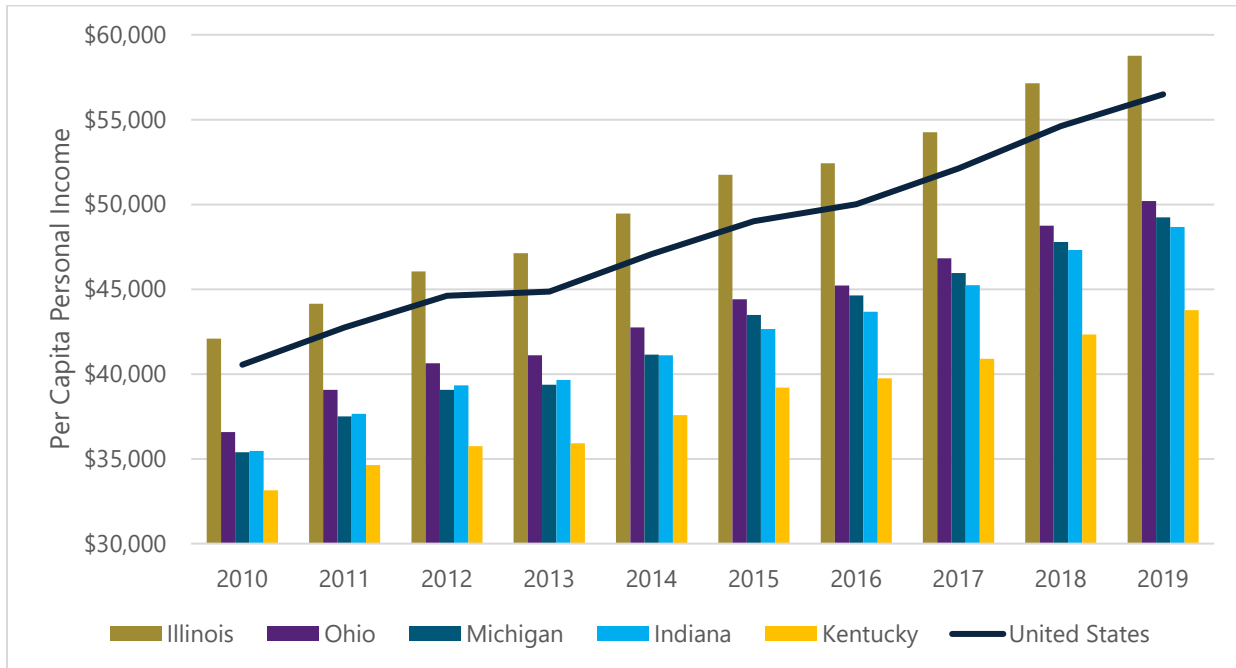
3.2 Income

In 2019, Indiana's per capita personal income (PCPI) was \$48,678, which is 13.8 percent lower than the national average of \$56,490.⁹⁵ The 2019 PCPI reflected an annual 3.4 percent increase from 2014, which also lagged behind the change in the national average of 3.7 percent over the same timeframe. Among states in the Midwest region, Indiana trails behind Illinois (\$58,764), Ohio (\$50,199), and Michigan (\$49,228). PCPI is higher in Indiana compared to Kentucky (\$43,770). Since 2000, Indiana's PCPI has increased 72.4 percent, while the national average has increased by 84.3 percent. In the Midwest, Illinois has seen a 77.2 percent increase, followed by Kentucky (75.8 percent), Ohio (75.1 percent), Indiana (72.4 percent), and Michigan (61.9 percent).

Figure 3-2 presents PCPI trends from 2010 to 2019 for the U.S., Indiana, and adjacent states in the Midwest region.

⁹⁵ U.S. Bureau of Economic Analysis. *Personal Income Summary: Personal Income, Population, Per Capita Personal Income*.

Figure 3-2 – Per Capita Personal Income, 2010-2019



Source: HDR Analysis of U.S. Bureau of Economic Analysis, Per Capita Personal Income Data.

Hamilton County has the highest median household income (\$94,644) among Indiana’s counties with Boone (\$80,567), Hendricks (\$78,355), and Hancock (\$73,142) counties following just behind. All these counties reported a median household income greater than the state average of \$68,054. The top-earning counties are in the greater Indianapolis metropolitan area, reflecting the city’s presence as the economic center of the state. Marion County, which encompasses the Indianapolis downtown, has a lower median income of \$46,692.⁹⁶ Figure 3-3 displays ranges of median household incomes by county.

⁹⁶ U.S. Census Bureau. American Community Survey 5 – Year Estimates (2014 – 2018), Median Household Income (in 2018 dollars).



3.3 Population

According to the U.S. Census Bureau, Indiana’s population grew 3.7 percent between 2010 and 2019, from 6,490,432 to 6,732,219 people; this rate was below the national average of 6.3 percent over the same timeframe.⁹⁷ However, Indiana still outpaced population growth in the Midwest region, which saw an overall population growth of approximately 2.0 percent during the same period.⁹⁸ The U.S. Census Bureau is expected to publish 2020 population counts by December 31, 2020 however this date may change due to delays related to the COVID-19 pandemic.

The Indiana Statewide Travel Demand Model (ISTDM) forecasts population to increase from 6,566,406 in 2015 to 7,807,861 by 2045, representing an average annual growth rate of 0.6 percent.

While the state overall has experienced a slow but steady population growth since 2010, specific regions within Indiana have experienced explosive growth. The fastest growing regions in the state are regions around the city of Indianapolis. Hamilton County, located just north of Indianapolis, saw its population grow by an estimated 22.2 percent from 2010 to 2019, which is about six times greater than the state as a whole.⁹⁹ Hendricks and Hancock Counties, also in the greater Indianapolis area, saw their respective populations grow by 16.7 percent and 11.3 percent during the same period. In addition to experiencing high population growth, these three counties also have one of the highest median household incomes in the state.

Figure 3-4 presents population growth by county between 2010 and 2019. According to STATS Indiana, projected population growth between 2020 and 2050 will take place primarily in Hamilton County (53.7 percent), Hendricks County (40.6 percent), Boone County (38.8 percent), Johnson County (27.8 percent), and Hancock County (26.6 percent).¹⁰⁰ Figure 3-5 presents the forecasted population growth by county per STATS Indiana data.

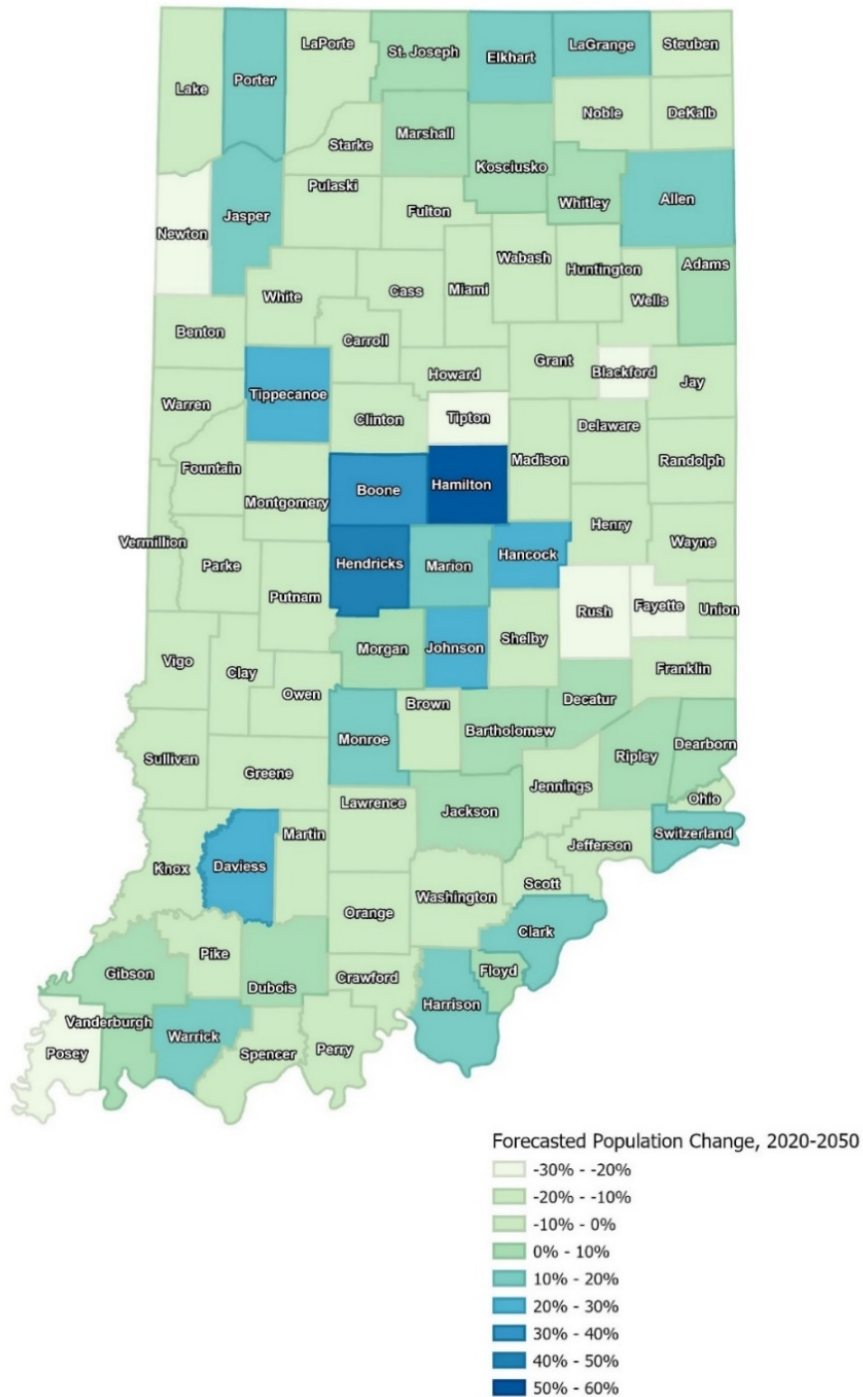
⁹⁷ U.S. Census Bureau. *Quick Facts: Indiana*.

⁹⁸ Stats Indiana. *State Population Estimates, 2010 – 2019*.

⁹⁹ Stats Indiana. *Population Estimates for Indiana Counties, 2010 – 2019*.

¹⁰⁰ Stats Indiana. *Indiana Population Projections*.

Figure 3-5 – Projected Population Change by County, 2020 – 2050



Source: HDR Analysis of Stats Indiana. Indiana Population Projections.



3.4 Employment

According to the U.S. Bureau of Labor Statistics (BLS), total nonfarm employment has surpassed its pre-recession peak in the state and stands about 3.0 million as of June 2020, almost 13 percent higher than the recent low due to the COVID-19 pandemic.¹⁰¹ Despite this, the total nonfarm employment level is about the same as it was in 2000, suggesting that GSP changes during this period was generated by changes in productivity, rather than from a substantial expansion in employment.

Indiana's most prominent economic sectors, as measured by share of total employment, are manufacturing and trade, transportation, and utilities; these contribute to demand for freight rail. The trade, transportation, and utilities sector employed 19.1 percent of the state's workers (over 577,000 employees) as of June 2020, however, this is about a 3.7 percent decrease from the previous years, with the change attributable towards the impacts from COVID-19. The manufacturing sector employs about 496,000 workers, which is substantially lower than the peak of over 670,000 at the turn of the century, but a notable improvement from the recent lows of 450,000 due to COVID-19. While manufacturing employment throughout the country has been trending downward since 2000, it remains key to the economic well-being of Indiana's citizens, since it employs over 14.6 percent of its labor force. The decline in manufacturing employment in Indiana may be driven by a variety of factors, which to a large degree includes technological advancements and (production) automation, and to a lesser degree outsourcing to other regions or countries. Education and health services, the third largest sector, has seen a strong 5.8 percent employment growth to about 455,000 jobs from their recent lowest point due to COVID-19.

Employment has dropped most dramatically in the mining and logging industry, falling over 11.0 percent from June 2019 to June 2020. As of June 2020, mining and logging make up less than 0.2 percent of total employment in the state.

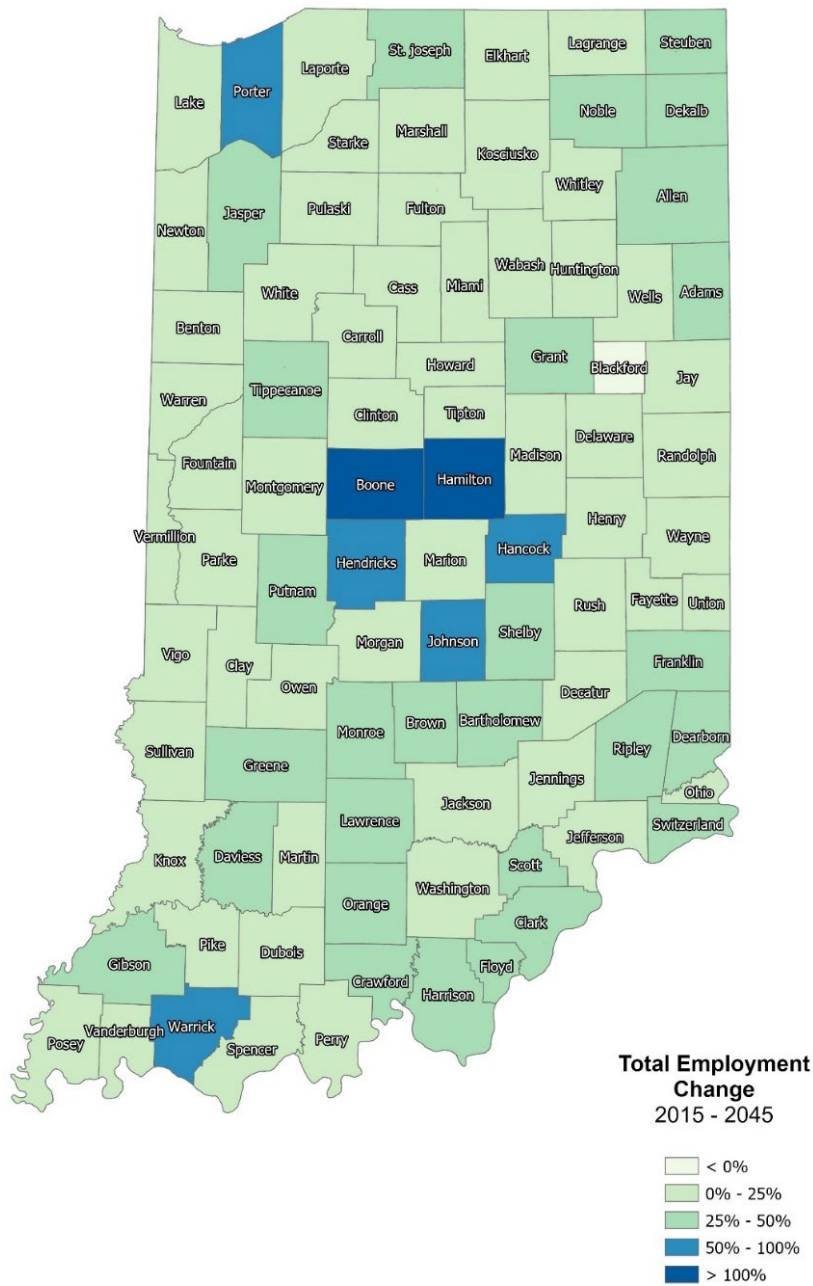
ISTDM forecasts employment in Indiana to grow from 3.6 million in 2015 to 4.7 million in 2045, representing a 0.9 percent average annual increase. Using these average annual growth rates Indiana can expect 4.0 million nonfarm jobs in 2045, based on the BLS' 2019 estimate of 3.2 million for nonfarm employment. Figure 3-6 shows employment growth clustered around Indianapolis, Evansville, and Porter County.

More study in these growing counties around Indianapolis, Evansville, and South Bend is needed to identify potential new markets for freight and passenger rail service.

¹⁰¹ U.S. Bureau of Labor Statistics. *Economy at a Glance*



Figure 3-6 – Projected Employment Change by County, 2015 – 2045



Source: HDR Analysis of Indiana Statewide Travel Demand Model



3.5 Freight Rail Baseline Commodity Movements

Indiana's location is vital to the freight movement within the U.S. rail network. Indiana's rail network connects freight rail moving between East Coast markets and nearby Midwestern hubs, such as Chicago, Illinois, and St. Louis, Missouri. It also connects the Midwest to the Southeast through important north-south corridors that go through Indiana. As shown in Table 3.1, 64.0 percent of freight rail handled by the Indiana rail network passes between origins and destinations outside of the state (through movement). In addition, Indiana is one of the largest states for originating and terminating rail tonnage in the nation. Indiana generates more rail freight than it consumes, delivering approximately 4.1 million more tons per year to other states (outbound) than it receives (inbound). Although less freight passes between origins/destinations within the state than move out of state, over 26.2 million tons move within the state (intrastate). Most of these intrastate moves consist of coal shipments from Indiana mines to power plants or other industrial users.

Rail movements in Indiana by direction (outbound, inbound, intrastate, and through), tons, and carload units were derived from the 2018 Surface Transportation Board (STB) Waybill Sample data provided by the Federal Railroad Administration (FRA). The following sections summarize rail movements by direction and the top commodities associated with each. Supplemental graphics are shown for ease of identifying key commodity movements with the supporting data located in Appendix A.

3.5.1 Summary

As shown in Table 3-1, 2018 Indiana rail movements totaled 345.2 million tons carried via 7.9 million carload units. Of all rail movements, those passing through Indiana are the dominant movement, comprising 64.0 percent of all directions by tonnage and 83.1 percent of all carload units, summarized in Figure 3-7 and Figure 3-8.

Both outbound and inbound movements are similar in magnitude (comprising 14.8 percent and 13.6 percent of all tonnage, and 7.4 percent and 6.4 percent of all carloads, respectively). In comparison, intrastate movements are small; encompassing 7.6 percent and 3.1 percent of all tonnage and carloads, respectively.

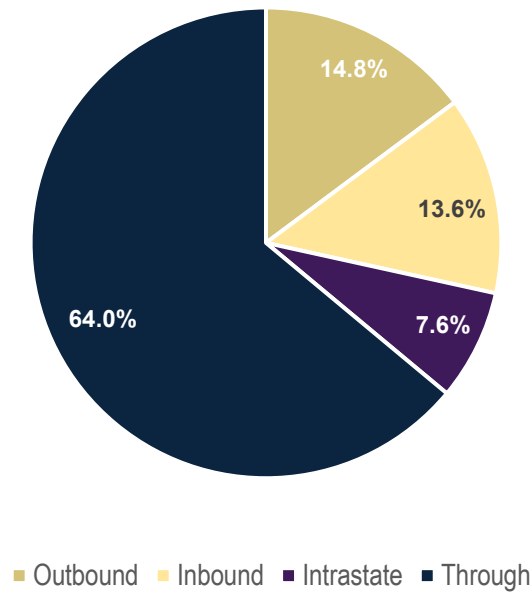


Table 3-1 – Rail Movement by Direction, 2018

Direction	Tons		Carloads		Tons/Carload Utilization
	Amount	Percent	Amount	Percent	
Outbound	51,130,122	14.8%	585,832	7.4%	87.3
Inbound	47,047,718	13.6%	508,735	6.4%	92.5
Intrastate	26,255,802	7.6%	242,859	3.1%	108.1
Through	220,741,673	64.0%	6,579,956	83.1%	33.5
Total	345,175,315	100.0%	7,917,382	100.0%	43.6

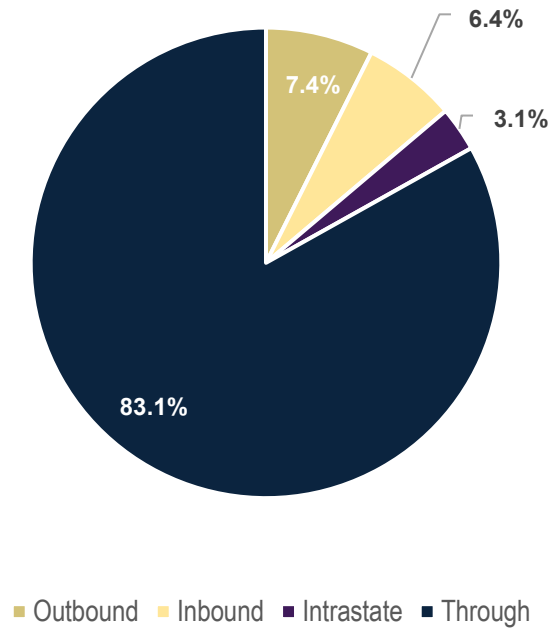
Source: HDR Analysis of 2018 STB Waybill Sample Data

Figure 3-7 – Rail Movement Share by Direction (Tons), 2018



Source: HDR Analysis of 2018 STB Waybill Sample Data

Figure 3-8 – Rail Movement Share by Direction (Carloads), 2018



Source: HDR Analysis of 2018 STB Waybill Sample Data

3.5.2 Major Commodity Movements by Direction

Table 3-2 highlights top commodities that either originated or terminated in Indiana. As shown in the table, coal is the largest commodity for outbound, inbound, and intrastate rail movement in Indiana. It is followed by primary metal products.



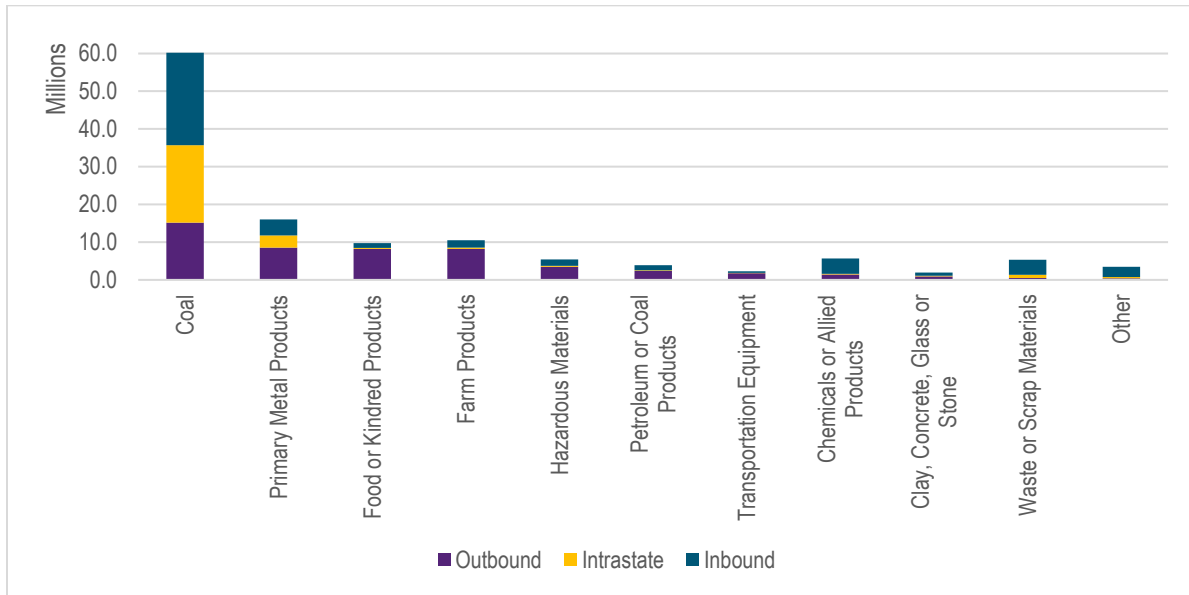
Table 3-2 – Top Commodities in Indiana by Direction, 2018 Tons

Commodity	Outbound		Commodity	Inbound		Commodity	Intrastate	
	Tons	Percent		Tons	Percent		Tons	Percent
Coal	15,209,661	29.7%	Coal	24,470,672	52.0%	Coal	20,495,579	78.1%
Primary Metal Products	8,539,167	16.7%	Primary Metal Products	4,191,838	8.9%	Primary Metal Products	3,269,683	12.5%
Food or Kindred Products	8,259,913	16.2%	Chemicals or Allied Products	4,042,600	8.6%	Waste or Scrap Materials	823,312	3.1%
Farm Products	8,209,374	16.1%	Waste or Scrap Materials	4,017,308	8.5%	Nonmetallic Minerals	348,360	1.3%
Hazardous Materials	3,499,871	6.8%	Farm Products	2,004,373	4.3%	Farm Products	334,692	1.3%
Petroleum or Coal Products	2,397,796	4.7%	Hazardous Materials	1,673,335	3.6%	Hazardous Materials	260,696	1.0%
Transportation Equipment	1,782,768	3.5%	Petroleum or Coal Products	1,376,807	2.9%	Food or Kindred Products	211,284	0.8%
Chemicals or Allied Products	1,398,940	2.7%	Food or Kindred Products	1,292,528	2.7%	Chemicals or Allied Products	204,956	0.8%
Clay, Concrete, Glass or Stone	942,720	1.8%	Clay, Concrete, Glass or Stone	872,544	1.9%	Petroleum or Coal Products	122,760	0.5%
Waste or Scrap Materials	504,512	1.0%	Nonmetallic Minerals	843,300	1.8%	Clay, Concrete, Glass or Stone	115,040	0.4%
Other	385,400	0.8%	Other	2,262,413	4.8%	Other	69,440	0.3%
Grand Total	51,130,122	100.0%	Grand Total	47,047,718	100.0%	Grand Total	26,255,802	100.0%

Source: HDR Analysis of 2018 STB Waybill Sample Data

Figure 3-9 displays rail shipments by commodity and by mode (e.g., outbound, intrastate, and inbound). Coal is by far the most dominant commodity in 2018. Indiana ships more agriculture and food products to other states than it receives, but it receives more waste products and chemicals or allied products than it ships.

Figure 3-9 – Freight Flow by Commodity and Direction, 2018 Tons



Source: HDR Analysis of 2018 STB Waybill Sample Data

3.5.3 Rail Outbound

Outbound movements in 2018 accounted for 51.1 million tons (14.8 percent of total freight rail movements) and nearly 586,000 carloads (7.4 percent of total). Appendix A provides detailed tables for Indiana rail outbound movements; however, the top five commodities by tonnage are presented below and shown in Figure 3-10.

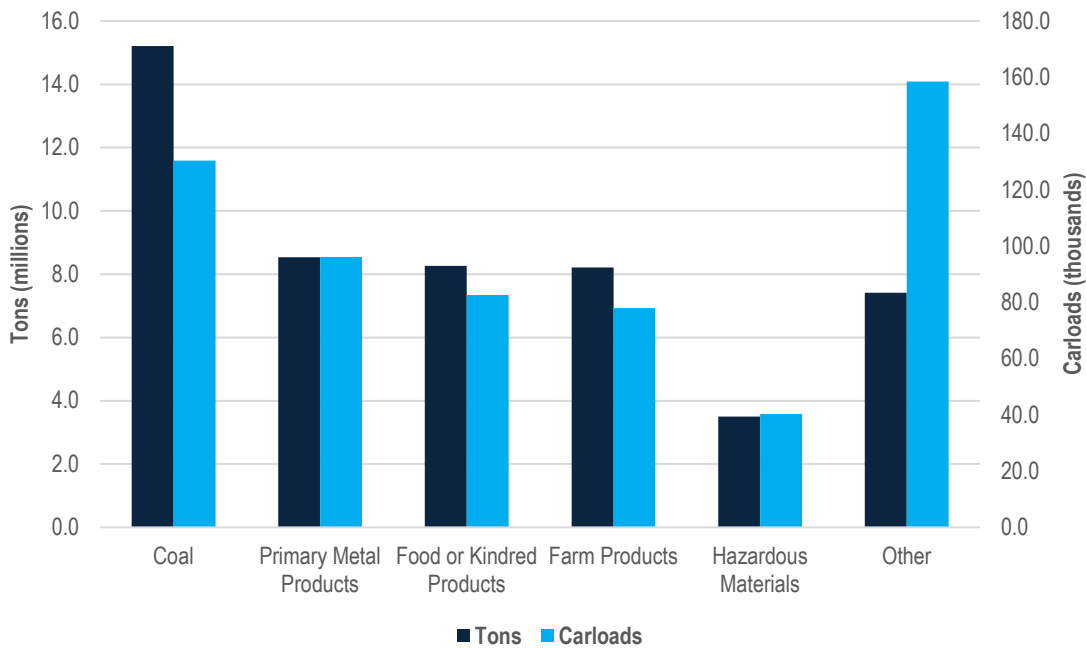
The main commodities by tonnage are the following:

1. Coal (15.2 million tons, 29.7 percent of outbound rail)
2. Primary metal products (8.5 million tons, 16.7 percent of outbound rail)
3. Food or kindred products (8.3 million tons, 16.2 percent of outbound rail)
4. Farm products (8.2 million tons, 16.1 percent of outbound rail)
5. Hazardous materials (3.5 million tons, 6.8 percent of outbound rail)

The corresponding carloads for the main commodities by tonnage are:

1. Coal (130,376 carloads, 22.3 percent of outbound rail)
2. Primary metal products (96,089 carloads, 16.4 percent of outbound rail)
3. Food or kindred products (82,641 carloads, 14.1 percent of outbound rail)
4. Farm products (77,921 carloads, 13.3 percent of outbound rail)
5. Hazardous materials (40,264 carloads, 6.9 percent of outbound rail)

Figure 3-10 – Rail Outbound Top Commodities by Tonnage (Millions of Tons and Thousands of Carloads), 2018



Source: HDR Analysis of 2018 STB Waybill Sample Data

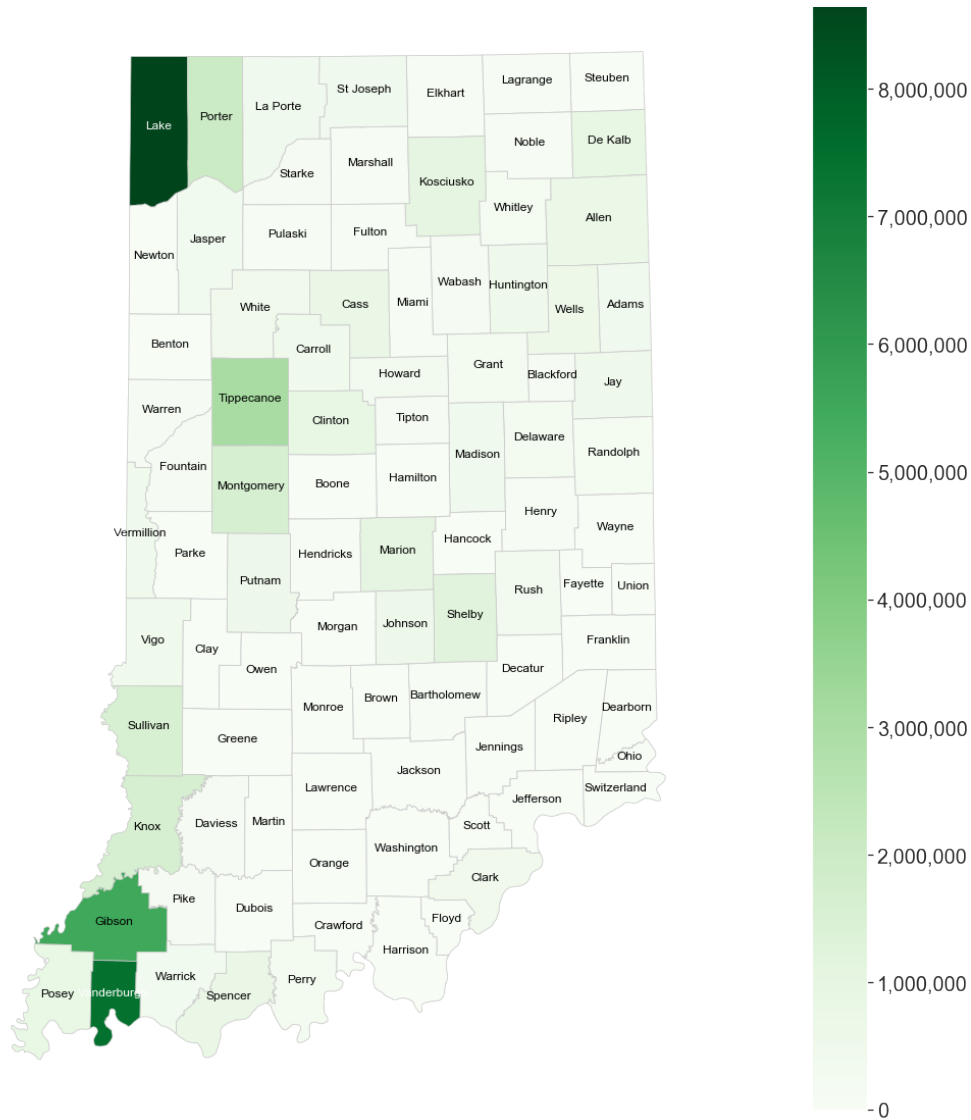
3.5.3.1 Outbound Tonnage Origin

Year 2018 rail movements destined for out-of-state originated primarily from:

- Lake County (8.7 million tons, 17.0 percent of outbound rail)
- Vanderburgh County (7.4 million tons, 14.5 percent of outbound rail)
- Gibson County (5.5 million tons, 10.8 percent of outbound rail)
- Tippecanoe County (3.1 million tons, 6.0 percent of outbound rail)
- Porter County (2.0 million tons, 4.0 percent of outbound rail)

Figure 3-11 shows the outbound tonnage origin by county in Indiana as a heatmap. Appendix A includes detailed tables and supporting data for commodity exports at the county level.

Figure 3-11 – Heatmap of Outbound Tonnage Origin by County, 2018



Source: HDR Analysis of 2018 STB Waybill Sample Data

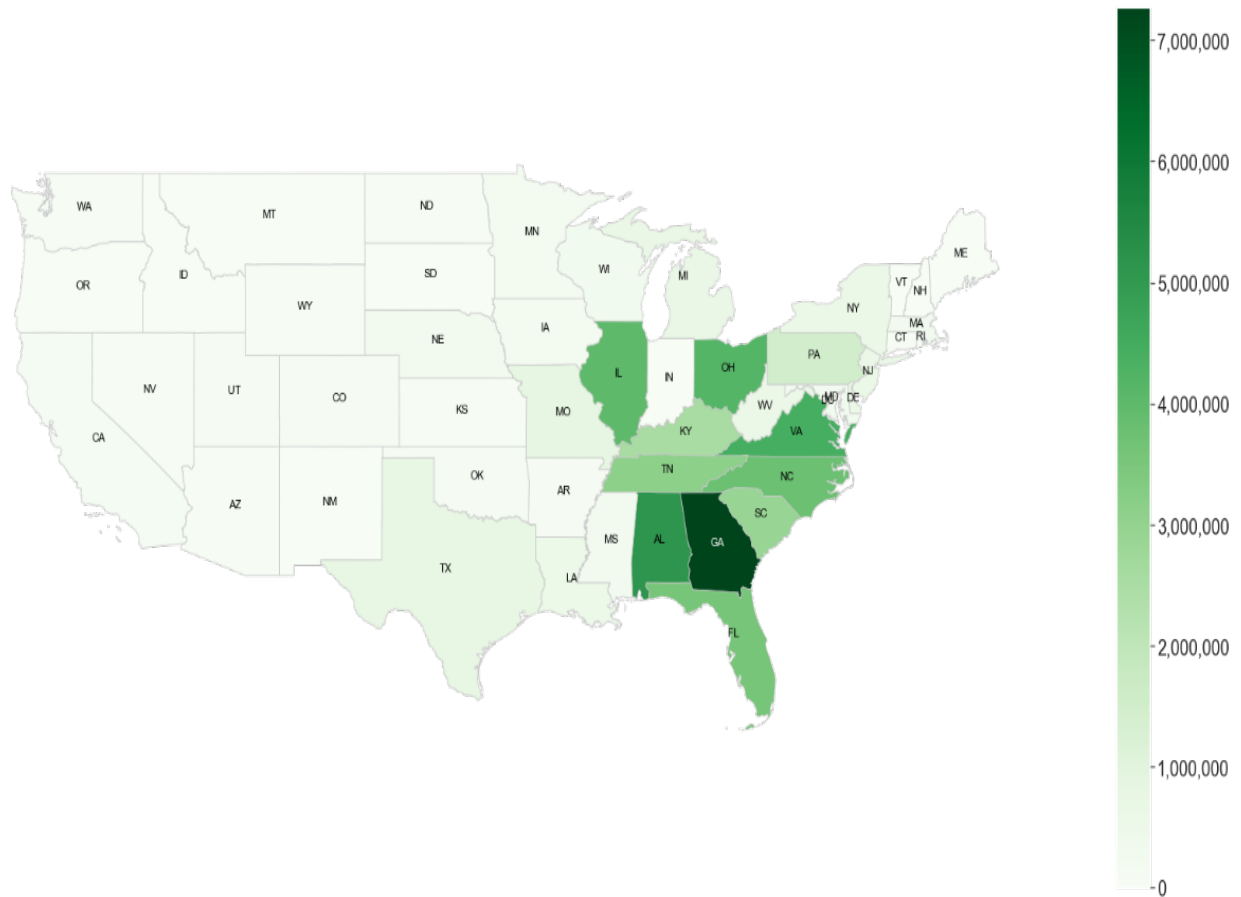
3.5.3.2 Outbound Tonnage Destination

Main destinations of Indiana rail exports for 2018 are:

- Georgia (7.3 million tons, 14.2 percent of outbound rail)
- Alabama (5.1 million tons, 10.1 percent of total outbound rail)
- Virginia (4.5 million tons, 8.7 percent of total outbound rail)
- Ohio (4.2 million tons, 8.2 percent of total outbound rail)
- Illinois (4.0 million tons, 7.9 percent of total outbound rail)

The U.S. destinations of outbound tonnage from Indiana are shown in Figure 3-12.

Figure 3-12 – Heatmap of Outbound Tonnage Destination by U.S. State, 2018



Source: HDR Analysis of 2018 STB Waybill Sample Data

3.6 Rail Inbound

Inbound movements in 2018 accounted for 47.0 million tons (13.6 percent of total) and nearly 509 thousand carloads (6.4 percent of total). Appendix A provides detailed tables for Indiana rail outbound movements; however, the top five commodities by tonnage are presented in Figure 3-13.

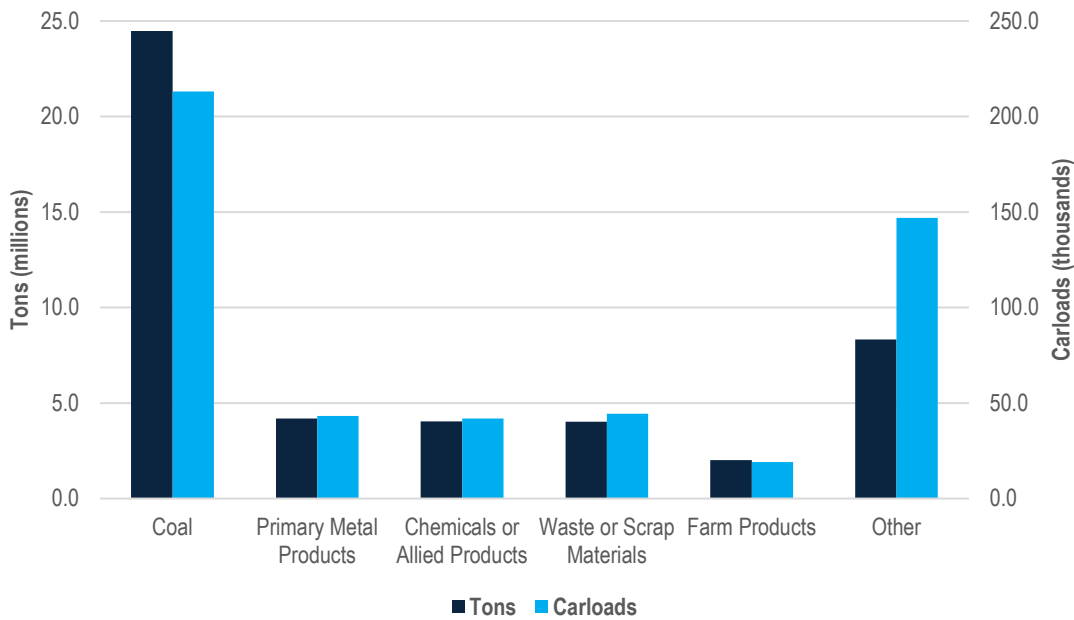
The main commodities by tonnage are the following:

1. Coal (24.5 million tons, 52.0 percent of inbound rail)
2. Primary metal products (4.2 million tons, 8.9 percent of inbound rail)
3. Chemicals or allied products (4.0 million tons, 8.6 percent of inbound rail)
4. Waste or scrap materials (4.0 million tons, 8.5 percent of inbound rail)
5. Farm products (2.0 million tons, 4.3 percent of inbound rail)

The corresponding carloads for the main commodities by tonnage are:

1. Coal (213,181 carloads, 41.9 percent of inbound rail)
2. Primary metal products (43,214 carloads, 8.5 percent of inbound rail)
3. Chemicals or allied products (41,838 carloads, 8.2 percent of inbound rail)
4. Waste or scrap materials (44,496 carloads, 8.7 percent of inbound rail)
5. Farm products (19,088 carloads, 3.8 percent of inbound rail)

Figure 3-13 – Rail Inbound Top Commodities by Tonnage (Millions of Tons and Thousands of Carloads), 2018



Source: HDR Analysis of 2018 STB Waybill Sample Data

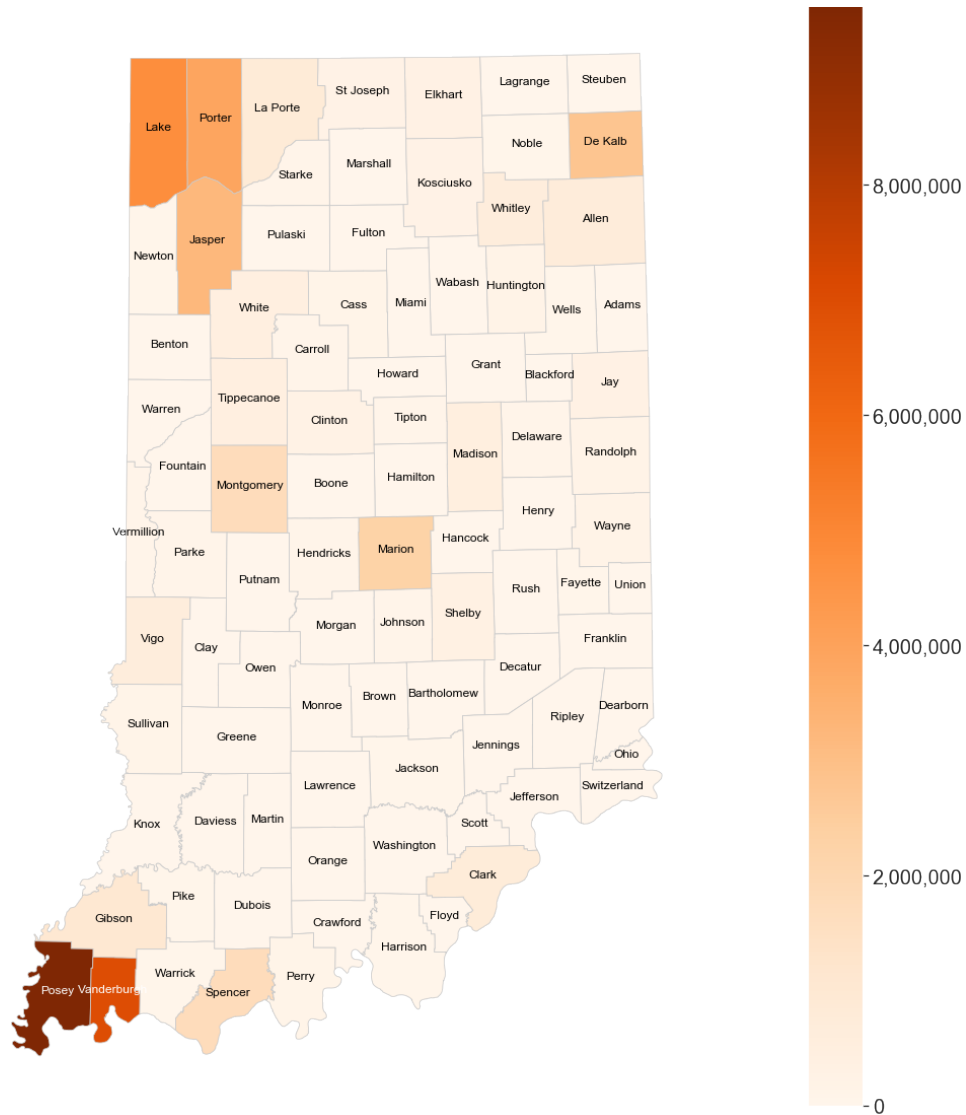
3.6.1.1 Inbound Tonnage Destination

Year 2018 out-of-state rail movements destined for Indiana are destined for:

- Posey County (9.6 million tons, 20.4 percent of inbound rail)
- Vanderburgh County (7.0 million tons, 14.9 percent of inbound rail)
- Lake County (4.8 million tons, 10.1 percent of inbound rail)
- Porter County (3.9 million tons, 8.3 percent of inbound rail)
- Jasper County (3.3 million tons, 6.9 percent of inbound rail)

Figure 3-14 shows the inbound tonnage destination by Indiana counties as a heatmap. Appendix A includes detailed tables and supporting data for commodity imports at the county level.

Figure 3-14 – Heatmap of Inbound Tonnage Destination by County, 2018



Source: HDR Analysis of 2018 STB Waybill Sample Data

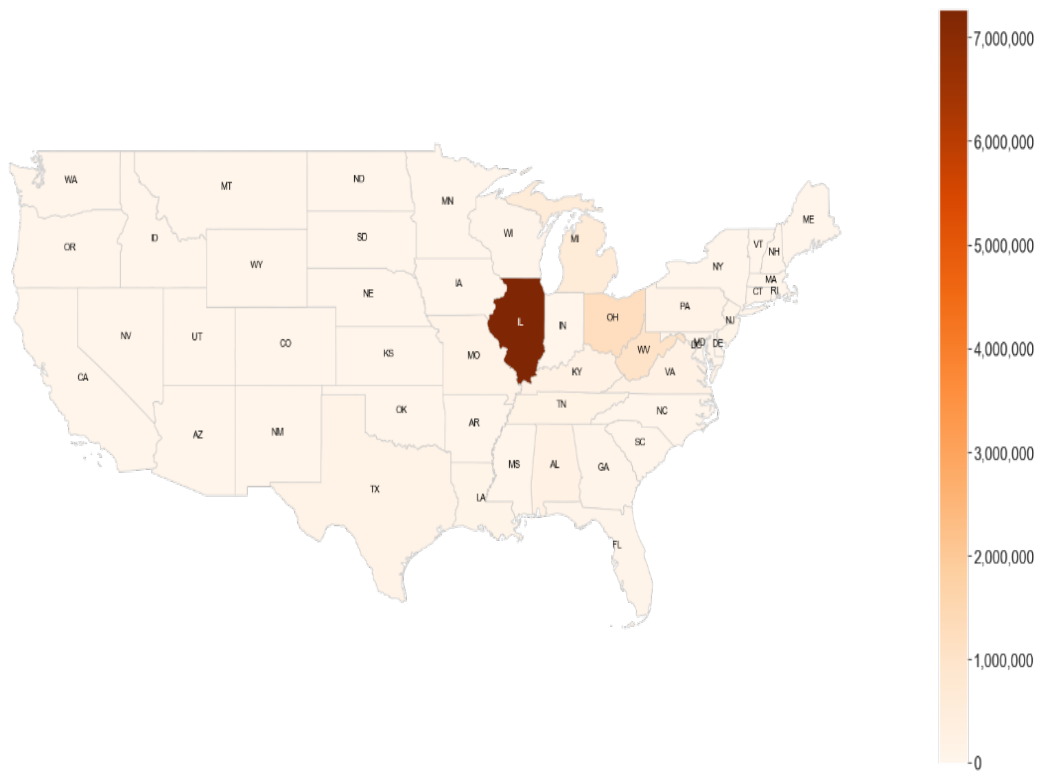
3.6.1.2 Inbound Tonnage Origin

Year 2018 out-of-state rail movements destined for Indiana originated primarily from:

- Illinois (26.8 million tons, 56.9 percent of inbound rail)
- Ohio (4.9 million tons, 9.7 percent of inbound rail)
- West Virginia (3.8 million tons, 8.1 percent of inbound rail)
- Michigan (2.3 million tons, 4.9 percent of inbound rail)
- Non-U.S. Origins (1.5 million tons, 3.3 percent of inbound rail)¹⁰²

Figure 3-15 shows the inbound tonnage origin by U.S. states as a heatmap. Appendix A includes detailed tables and supporting data for commodity imports at the state level.

Figure 3-15 – Heatmap of Inbound Tonnage Origin by U.S. State, 2018



Source: HDR Analysis of 2018 STB Waybill Sample Data

¹⁰² Over 99% of Non-US rail movements are originating in Canada.



3.7 Rail Intrastate

Intrastate movements in 2018 accounted for 26.3 million tons (7.6 percent of total) and nearly 243 thousand carloads (3.1 percent of total). Appendix A provides detailed tables for Indiana intrastate movements. The top five commodities by tonnage are presented in Figure 3-16.

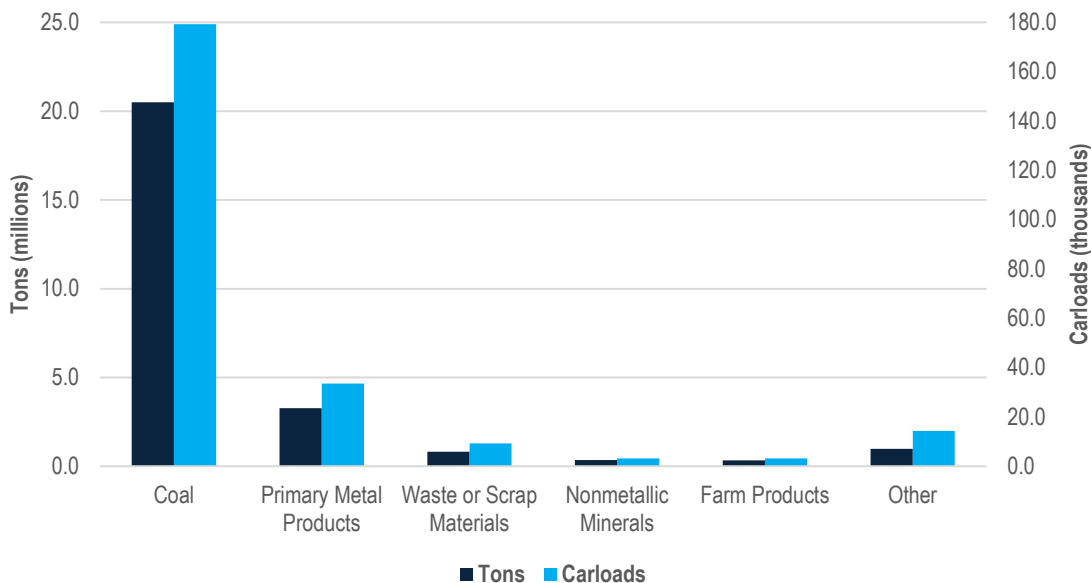
The main commodities by tonnage are the following:

1. Coal (20.5 million tons, 78.1 percent of intrastate rail)
2. Primary metal products (3.3 million tons, 12.5 percent of intrastate rail)
3. Waste or scrap materials (0.8 million tons, 3.1 percent of intrastate rail)
4. Nonmetallic minerals (0.3 million tons, 1.3 percent of intrastate rail)
5. Farm products (0.3 million tons, 1.3 percent of intrastate rail)

The corresponding carloads for the main commodities by tonnage are:

1. Coal (179,208 carloads, 73.8 percent of intrastate rail)
2. Primary metal products (33,562 carloads, 13.8 percent of intrastate rail)
3. Waste or scrap materials (9,324 carloads, 3.8 percent of intrastate rail)
4. Nonmetallic minerals (3,196 carloads, 1.3 percent of intrastate rail)
5. Farm products (3,233 carloads, 1.3 percent of intrastate rail)

Figure 3-16 – Rail Intrastate Top Commodities by Tonnage (Millions of Tons and Thousands of Carloads), 2018



Source: HDR Analysis of 2018 STB Waybill Sample Data



3.8 Rail Through

Intrastate movements in 2018 accounted for 220.7 million tons (64.0 percent of total) and nearly 8.6 million carloads (83.1 percent of total). Appendix A provides detailed tables for through movements. The top five commodities by tonnage are presented in Figure 3-17.

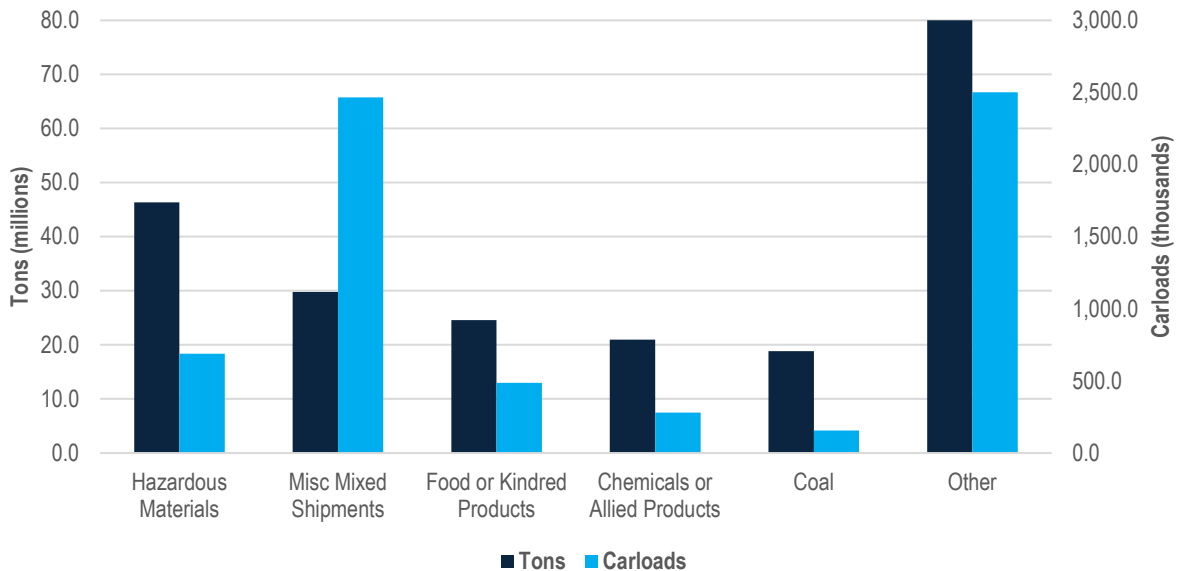
The main commodities by tonnage are the following:

1. Hazardous materials (46.4 million tons, 21.0 percent of through rail)
2. Miscellaneous mixed shipments (29.8 million tons, 13.5 percent of through rail)
3. Food or kindred products (24.6 million tons, 11.1 percent of through rail)
4. Chemicals or allied products (21.0 million tons, 9.5 percent of through rail)
5. Coal (18.8 million tons, 8.5 percent of through rail)

The corresponding carloads for the main commodities by tonnage are:

1. Hazardous materials (689,816 carloads, 10.5 percent of through rail)
2. Miscellaneous mixed shipments (2,465,668 carloads, 37.5 percent of through rail)
3. Food or kindred products (487,157 carloads, 7.4 percent of through rail)
4. Chemicals or allied products (280,656 carloads, 4.3 percent of through rail)
5. Coal (156,433 carloads, 2.4 percent of through rail)

Figure 3-17 – Rail Through Movement Top Commodities by Tonnage (Millions of Tons and Thousands of Carloads), 2018



Source: HDR Analysis of 2018 STB Waybill Sample Data



The share of other commodities passing through Indiana is significant and much higher than inbound, outbound, and intrastate movements. This group of other commodities primarily includes farm products, transportation equipment, and nonmetallic minerals.

3.9 Intermodal Freight

As shown in Table 3-3, most of the intermodal freight (98.2 percent) on the Indiana rail network passes through the state between locations outside of Indiana.

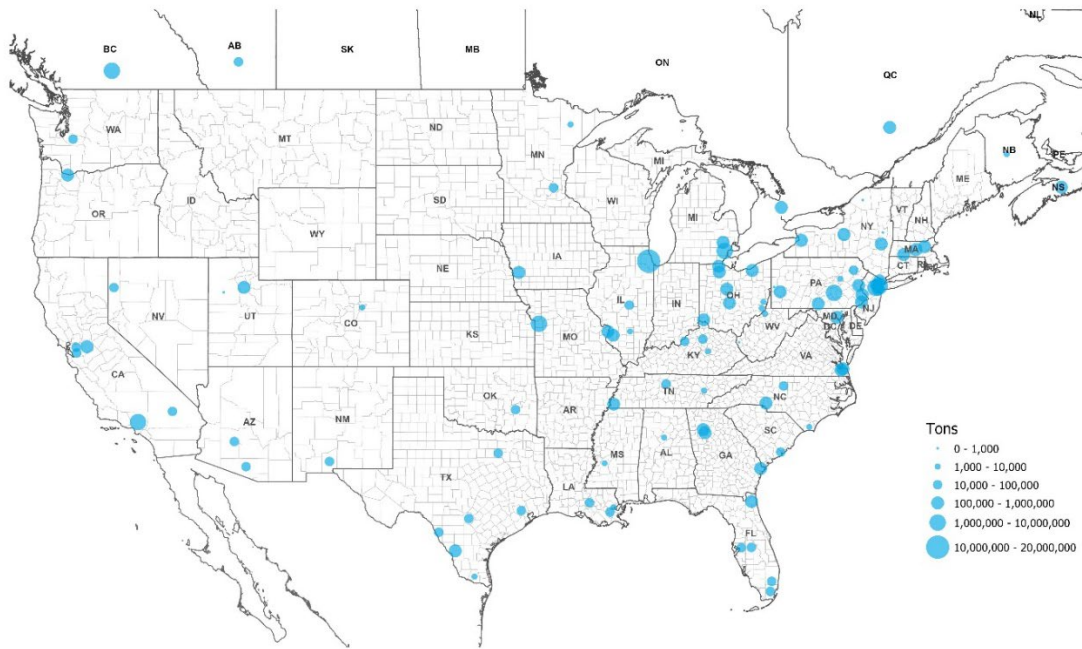
Table 3-3 – Percentage of Intermodal Freight Flow by Direction by Tonnage, 2018

Type of Flow	Percentage
Inbound	1.1%
Outbound	0.7%
Through	98.2%
Total	100.0%

Source: HDR Analysis of 2018 STB Waybill Sample Data

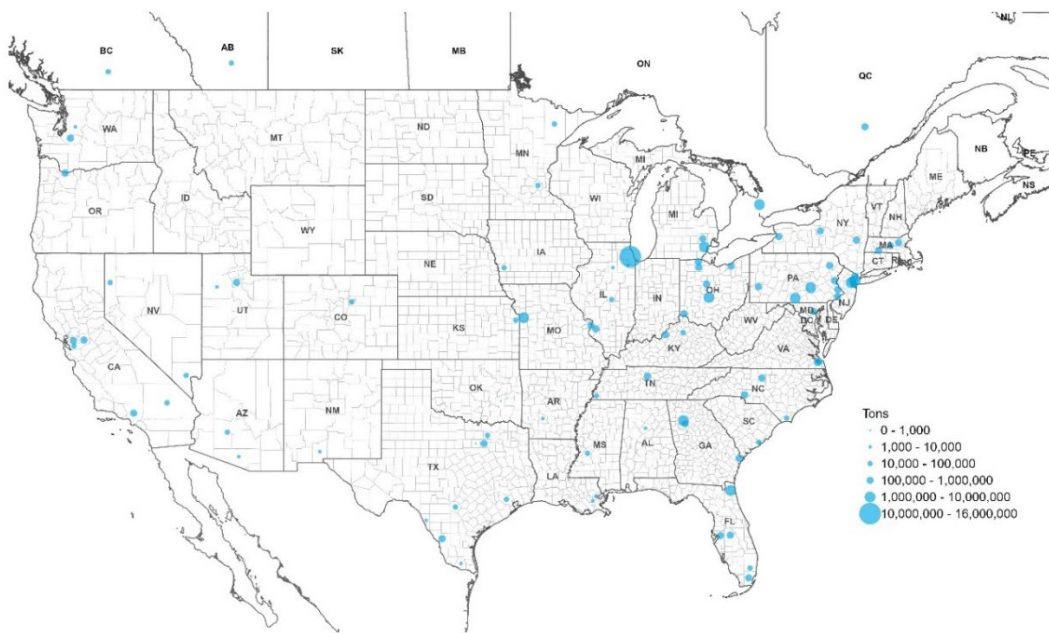
Figure 3-18 and Figure 3-19 present the originating and terminating locations within the U.S. for the intermodal freight that passes through Indiana. Chicago (Cook County, Illinois), is the largest origin and destination. Even though Cook County, Illinois may be the location where freight is transferred but not the ultimate origin or destination for much of this traffic, Chicago is a major rail-hub within the region that collects and redistributes freight throughout the eastern and western segments of the U.S.

Figure 3-18 – Origins of Intermodal Freight Flow Passing through Indiana, 2018 Tons



Source: HDR Analysis of 2018 STB Waybill Sample Data

Figure 3-19 – Destinations of Intermodal Freight Flow Passing through Indiana, 2018



Source: HDR Analysis of 2018 STB Waybill Sample Data



Table 3-4 presents the top state pairs for this Indiana through intermodal traffic.

Table 3-4 – Top Origin and Destination Pairs for Intermodal Freight Flow by Tonnage, 2018

Origin State	Destination State	Freight Flows (in tons)
Illinois	Pennsylvania	4,222,440
Illinois	New Jersey	3,712,480
New Jersey	Illinois	3,636,760
Illinois	Ohio	3,161,640
Pennsylvania	Illinois	3,066,880

Source: HDR Analysis of 2019 STB Waybill Sample Data

Intermodal through movements largely originate or terminate in Illinois. Movements between Illinois and Pennsylvania account for 14.6 percent of all through intermodal traffic. Moreover, 75.0 percent of all intermodal through movements either start or end in Illinois, thus indicating that Indiana’s rail network is vital to connecting Northeastern and Southeastern markets to Chicago, a rail hub for the Midwest and the broader U.S.

3.10 Passenger Travel Demand

Forecasts from the Indiana Statewide Travel Demand Model (ISTDM) show passenger roadway and highway travel demand growth through the year 2045. Between 2015 and 2045, the ISTDM forecasts total weekday vehicle miles of travel (VMT) growing at a 0.8 percent compound annual growth rate resulting in a 26 percent increase in VMT over the 30-year planning horizon. Truck traffic is forecast to grow at a slower compound annual growth rate of 0.6 percent resulting in a 20 percent increase in truck VMT between 2015 and 2045. This VMT growth rate is consistent with the ISTDM socioeconomic projections that show a 19.0 percent increase in population and a 31 percent increase in employment statewide.

3.10.1 Level of Service

Level of Service (LOS) is a qualitative measurement of operational characteristics of traffic and the perception of the traffic conditions by both motorists and passengers. There are six levels of service defined by the Transportation Research Boards’ Highway Capacity Manual 2010 (HCM), published by the Transportation Research Board (TRB). Each level of service is given a letter designation from A to F, with A representing the optimal or best condition and F the worst.



Road segment level of service is characterized by the HCM as follows:

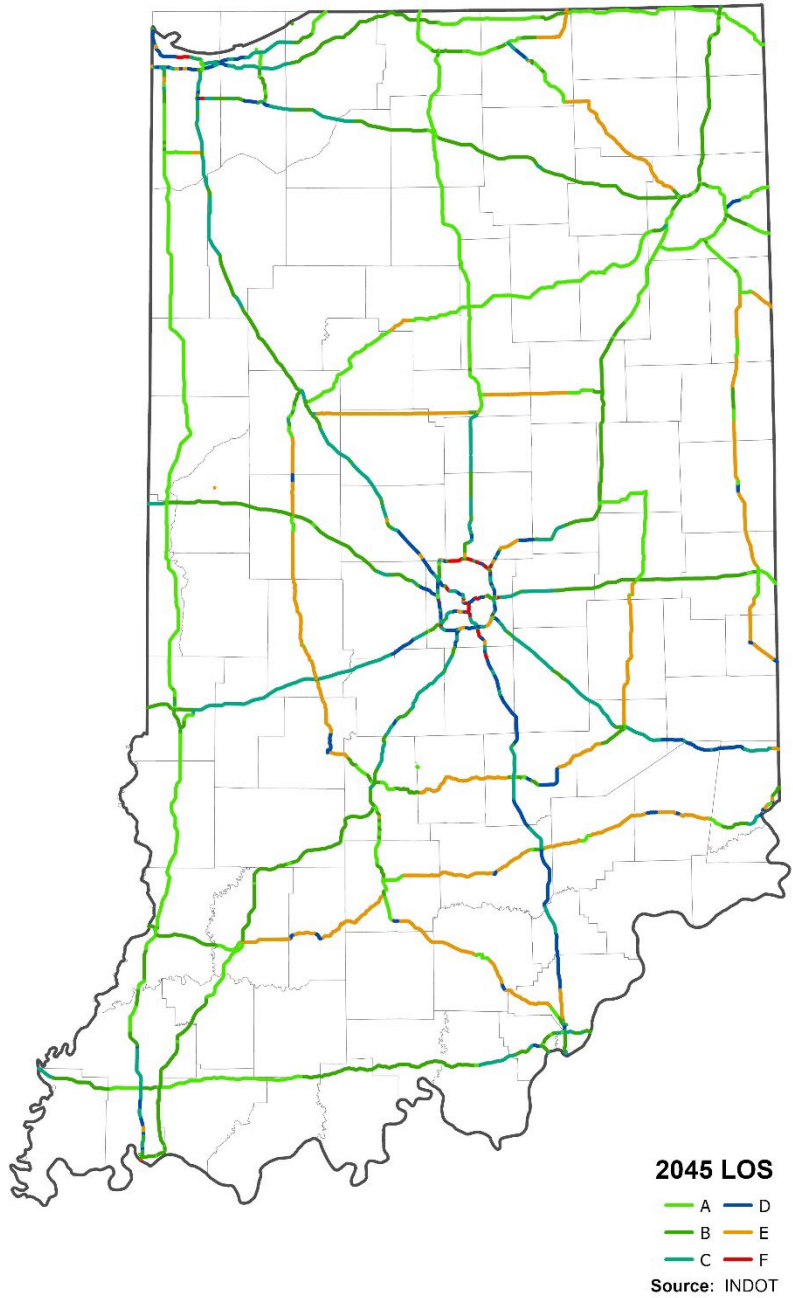
- **LOS A:** Best, free flow operations (on uninterrupted flow facilities) and very low delay (on interrupted flow facilities). Freedom to select desired speeds and to maneuver within traffic is extremely high.
- **LOS B:** Flow is stable, but presence of other users is noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within traffic.
- **LOS C:** Flow is stable, but the operation of users is becoming affected by the presence of other users. Maneuvering within traffic requires substantial vigilance on the part of the user.
- **LOS D:** High density but stable flow. Speed and freedom to maneuver are severely restricted. The driver is experiencing a generally poor level of comfort and convenience.
- **LOS E:** Flow is at or near capacity. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within traffic is extremely difficult. Comfort and convenience levels are extremely poor.
- **LOS F:** Worst, facility has failed, or a breakdown has occurred.

LOS A, B, and C are generally considered to be satisfactory service levels, though driver expectations in rural areas may be a LOS B. The influence of congestion becomes more noticeable at LOS D. LOS E is undesirable and is considered by most agencies to be the limit of acceptable delay, and LOS F conditions are considered to be unacceptable to most drivers.

3.10.2 Traffic Forecasts

Figure 3-20 shows the 2045 ISTDM traffic forecasts for the Indiana Statewide Mobility Corridors. These corridors provide mobility for people and goods moving to, from, through, and within Indiana. This analysis assumes that currently funded highway capacity projects are built. The results show LOS E or F traffic conditions on Interstate 465 (I-465) a principal bypass circling Indianapolis. Portions of US Highway 231, US Highway 50, State Route 26, and State Route 3 are forecast to operate at LOS E. These congested corridors should be studied in more detail to determine whether freight or passenger rail could shift traffic from the highways.

Figure 3-20 – 2045 Level of Service – Indiana Statewide Mobility Corridors (Roadway) – Committed Projects



Source: HDR Analysis of ISTD TM



3.11 Trade and Economic Development

Indiana's statewide railroad industry and network contributes to its economy by employing its residents and supporting other businesses and components of the Indiana Economy.

3.11.1 Freight Rail

The Association of American Railroads (AAR) estimates that in 2017 the railroad industry employed 8,359 workers in Indiana with average wages and benefits per employee equaling \$125,391.¹⁰³ In addition to these direct employment impacts, the railroad industry contributes indirectly through industries that rely on rail.

Although transporting commodities by rail can be relatively slower than truck, it is also known to be more cost efficient. Thus, shippers and businesses can realize transportation cost savings through rail transportation. In terms of economic development, rail transportation has been recognized by local economic development professionals to attract new businesses. With rail transportation being such a key component to many businesses, it is critical to ensure that rail access is adequate and that rail infrastructure is well maintained and in good operating condition to both retain and attract those businesses.

Although not all commodities may be transported by rail, an analysis of 2018 freight data comparing the average freight transportation rates by mode estimates an average savings of 15 cents per ton-mile can be realized by switching from trucks to freight rail.¹⁰⁴ While this value reflects an overall average potential cost savings, the savings for specific commodities may vary due to myriad factors including accessibility, timeliness or urgency, commodity type, number of providers, and so on. As goods and commodities are generally determined by the global markets, potential transportation cost savings not only could allow Indiana's commodities or outputs to compete in the global market, but it can also allow businesses within the state to grow.

Rail transportation provides low-cost, high-capacity, and low environmental impact solutions for the movement of people and goods, particularly as the travel distance increases. One major factor in this corresponds to the relative capacity railcars can carry compared to their truck counterparts. For instance, based on 2018 rail data from the STB Carload Waybill Sample and some accompanying assumptions, almost two trucks are taken off the Indiana roadway network per rail carload if shippers were to switch modes.¹⁰⁵ In addition, diverting a train's worth of volume from trucks to rail could

¹⁰³ Association of American Railroads. *Railroad Ten-Year Trends 2009-2018*

¹⁰⁴ U.S. Bureau of Transportation Statistics. *National Transportation Statistics Table 3-21: Average Freight Revenue per Ton-Mile.*

¹⁰⁵ Assuming a generalized average 25 tons per truck based on industry experience. Freight rail volume obtained from STB Waybill data



translate to almost 175 trucks being taken off roadways.¹⁰⁶ Assuming rail service were to be completely unavailable in 2018, the 7.9 million carloads traveling to, from, through, and within Indiana would translate into approximately 13.8 million additional trucks on the roadway network annually or approximately 38,000 additional trucks daily to transport freight commodities.

3.11.2 Passenger Rail

By the end of Amtrak's 2017 fiscal year, Amtrak had employed 771 Indiana residents with over \$49 million in wages.^{107,108} Beech Grove – Amtrak's principal heavy maintenance facility, near Indianapolis – employs 485 based on the latest available Amtrak data (2018). The Indianapolis Distribution Center is Amtrak's largest material and supply facility, employing 24 full- and part-time employees.¹⁰⁹ According to Northern Indiana Commuter Transportation District's (NICTD) most recent annual financial report, NICTD employs 366 workers, although it is unknown how many of these are Indiana residents.¹¹⁰

Intercity and commuter rail transportation links improve mobility between urban centers helping to drive economic activity. NICTD's goal for the South Shore Line is to connect northwest Indiana and Chicago to improve access to jobs with a reliable transit option. NICTD estimated that commuters on its rail line brought an estimated \$237.5 million to Indiana in 2012.¹¹¹

¹⁰⁶ Assuming a generalized average of 100 carloads per train based on industry experience.

¹⁰⁷ Amtrak. *Amtrak Fact Sheet Fiscal Year 2017 – State of Indiana*.

¹⁰⁸ Note: The latest Amtrak Fact Sheet for Indiana (2018) does not have updated information regarding the number of employed Indiana residents and the corresponding wages.

¹⁰⁹ Amtrak. *Amtrak Fact Sheet Fiscal Year 2018 – State of Indiana*.

¹¹⁰ Northern Indiana Commuter Transportation District. *Comprehensive Annual Financial Report – For the Years Ended December 31, 2019 and 2018*.

¹¹¹ Northern Indiana Commuter Transportation District. *West Lake Corridor and South Shore Line Strategic Planning Investments: A Regional Benefit Analysis with Addendum: The Fiscal Impact of the Economic Benefits*. January 27, 2014.

https://www.in.gov/rda/files/NICTD_Benefits_of_WLE_Final_Rpt_w_Addendum_1_27_2014.pdf



3.12 Fuel Cost Trends

Fuel costs are a factor in passenger rail ridership and the movement of freight via rail lines. As fuel costs trend upwards, more people utilize passenger rail service and the movement of freight goods transitions from trucks to railcars.

U.S. average retail gasoline prices dropped by around 35 percent from a recent high in May 2018 of \$2.99 per gallon to a low of \$1.94 per gallon in April 2020 due to COVID-19. Between July and September 2020, gasoline prices have hovered around \$2.27 per gallon. Retail diesel follows a similar trend, with almost a 30 percent decline from a recent peak of \$3.37 per gallon in October 2018 to a low of \$2.39 per gallon in May 2020. Recent retail diesel (April 2020-September 2020) prices have hovered around \$2.40 per gallon.¹¹²

Table 3-5 displays average annual diesel prices between 2015 and 2019 for the U.S. and Midwest region. Midwest average diesel prices tend to be lower than the U.S. average.

Table 3-5 – Average Annual Diesel Prices (2015 – 2019)

	2015	2016	2017	2018	2019
National On-Highway Diesel Fuel Retail Price (per Gallon)	\$2.71	\$2.30	\$2.65	\$3.18	\$3.06
Midwest On-Highway Diesel Fuel Retail Price (per Gallon)	\$2.64	\$2.26	\$2.60	\$3.11	\$2.96

Source: U.S. Energy Information Administration, Retail Gasoline and Diesel Prices.

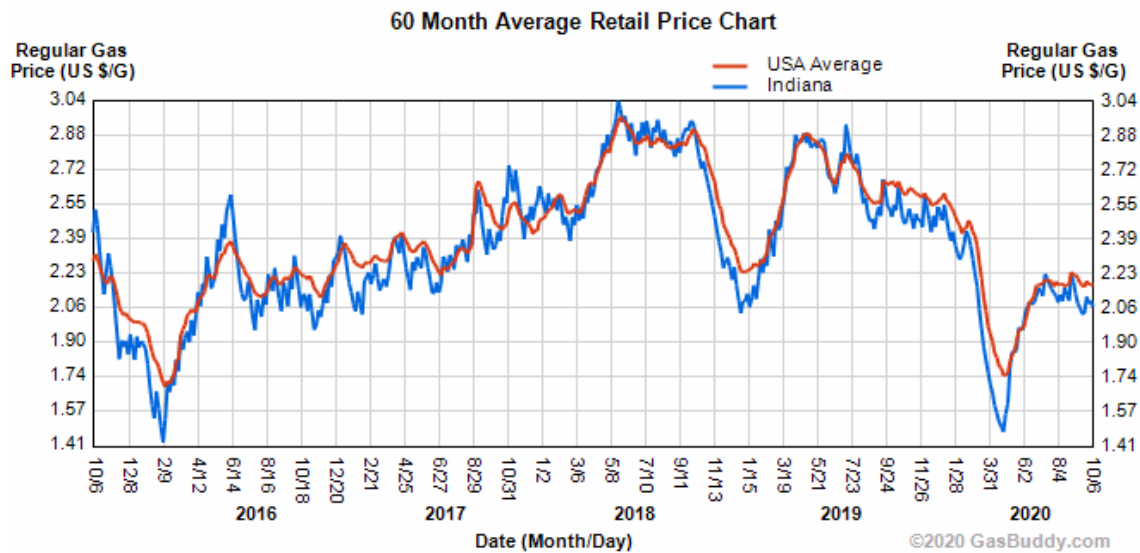
As of October 2020, the average gasoline and diesel prices in Indiana is \$2.06 per gallon and \$2.42 per gallon, respectively.¹¹³ The U.S. average gasoline price of \$2.19 is higher than Indiana’s. However, with an average price of \$2.39, diesel is slightly cheaper at the national level. Over the past five years, Indiana recorded a peak gasoline price of \$3.04 per gallon in May 2018. Lowest gasoline prices were recorded in February 2016 at \$1.41 per gallon and in April 2020 at \$1.45 per gallon due to COVID-19. Prices have rebounded since then with a peak of \$2.23 per gallon in September 2020 followed by a slight drop in October 2020.

¹¹² U.S. Energy Information Administration. *Weekly Retail Gasoline and Diesel Prices*.

¹¹³ AAA. *State Gas Price Averages*.

Trends in fuel costs (regular gasoline) between October 6, 2015, and October 6, 2020, for Indiana and the U.S. are shown in Figure 3-21. The trend in Indiana’s gasoline price generally follows the U.S. average trend.

Figure 3-21 – Monthly Fuel Price Trends (Gasoline)



Source: GasBuddy.com

Real gasoline and diesel prices are forecasted to increase steadily over the next 30 years. According to the U.S. Energy Information Administration’s (EIA) Annual Energy Outlook 2020, both retail motor gasoline and diesel prices are expected to increase by an average of 0.8 percent per year in real terms from 2019 to 2050.

3.13 Rail Congestion Trends

According to the AAR Railroad Ten-Year Trends 2009-2018, rail network velocity fluctuated between 17.6 and 21.3 freight train-miles per train-hour during this period as shown in Table 3-6.¹¹⁴ Though the average velocity declined in 2014 due to increased congestion on the rail system, driven by the combination of increased oil shipments, large grain harvests, and weather impacts, there has been no consistent trend for freight railroad velocity over the past 11 years. Recently, the average network

¹¹⁴ Average distance per hour for trains to operate between origin and destination, as well as including stops.



velocity trended upwards from 2014 reaching a recent peak of 20.6 freight train-miles per train-hour in 2016 and declining to 18.5 freight trains-miles per train hour in 2019.

Amtrak’s On-Time Performance (OTP) has followed similar trends to network velocity. Amtrak’s OTP improved from 2010 through 2013, but then declined in 2014 and 2015. In addition, the relationship continued in recent years when both network velocity and Amtrak’s OTP improved in 2016 but declined in 2017 and 2018. Similar to freight network velocity, Amtrak on-time statistics for this time period do not point to a specific trend to project into the future. Amtrak 2019 OTP data is not yet available.

Table 3-6 – Network Velocity, Amtrak On-Time Performance

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Network Velocity (Freight Train-Miles per Train Hour)	21.3	20.2	19.2	20.6	19.7	17.6	19.4	20.6	20.0	18.9	18.5
Amtrak On-Time Performance, Total Percent	80.4	79.7	78.1	83.0	82.3	72.4	71.2	79.1	74.6	73.0	N/A

Source: American Railroad Association, *Railroad Ten-Year Trends: 2009 – 2018 (with preliminary 2019 data)*. U.S. Bureau of Transportation Statistics, *National Transportation Statistics, Table 1-73: Amtrak On-Time Performance Trends and Hours of Delay by Cause*.

Future rail congestion mitigation efforts may require regional solutions that improve traffic flows into adjacent states with rail hubs close to Indiana, such as Chicago, Illinois, and Louisville, Kentucky. Chicago is the busiest rail freight interchange point in the U.S. and is served by six Class I railroads. Chicago is also a principal hub for intercity passenger trains and commuter trains. Currently, more than 1,200 trains pass through the Chicago region daily—500 freight and 760 passenger trains—each traversing rail infrastructure originally designed for lower volumes of traffic than are being carried today. The collective traffic volumes of passenger and freight rail movements often result in congestion that reduces performance and reliability. Several initiatives are underway that seek to address Chicago rail network issues and opportunities. However, contiguous rail lines in Indiana will likely require additional improvements to handle increases in traffic. These improvements not only would benefit traffic moving to and from Chicago and other locations on the national rail network, but also traffic originating and terminating at customer sites in Indiana.

In recent years, the Class I freight railroads have implemented changes to their operations that are intended to enhance service and reduce costs by optimizing the use of existing assets and eliminating or reducing any inefficiencies. Railroads have reported increases in train velocity as a result of these measures.



3.14 Airport Congestion Trends

Indianapolis International Airport (IND) is the busiest airport in Indiana. In June 2020, 91.3 percent of arrivals and 93.5 percent of departures at the airport were on-time, and the airport had over 1,400 departures. In terms of on-time figures, the other airports statewide had similarly high numbers with 93.7 and 94.5 percent for Evansville Regional Airport, 89.9 and 92.0 percent for Fort Wayne International Airport, and 91.5 and 92.1 percent for South Bend International Airport.¹¹⁵ It should be noted that these values may have been influenced by the reduction in air travel as a result of COVID-19 impacts. For comparison, in June 2019, Indianapolis International Airport had over 4,000 departures where 72.4 percent of arrivals and 77.9 percent of departures were on-time.¹¹⁶

Indianapolis International Airport is a medium-sized primary hub based on the definitions per the Federal Aviation Administration's (FAA) categorization of airports. This implies that the airport carries between 0.25 percent and 1 percent of national annual passenger boardings.¹¹⁷ Meanwhile, Evansville, Fort Wayne, and South Bend airports are categorized as primary non-hubs based on the similar categorization. This classification indicates that those airports had more than 10,000 annual passenger boardings but a share of less than 0.05 percent of boardings nationally. Again, it should be noted that due to COVID-19 impacts, there is a significant chance that all the listed airports may not be operating at their pre-COVID levels as of October 2020.

Northwestern Indiana residents also have the option of using nearby Chicago airports. In June 2020, 93.6 percent of arrivals and 92.9 percent of departures at Chicago's O'Hare International Airport were on-time. In the same month, 93.0 percent of arrivals and 88.7 percent of departures at Chicago's Midway International Airport were on-time. Under FAA's categorization of airports, both airports are categorized as large-sized primary hubs, with O'Hare International Airport being the third-busiest airport in the United States by total enplanements. Again, it should be noted that 2020 values may have been impacted due to COVID-19. Thus, for comparisons, June 2019 statistics indicate that 65.4 percent of arrival flights and 67.2 percent of departure flights from Chicago's O'Hare International Airport were on-time, while 76.9 percent of arrival flights and 67.5 percent of departure flights from Chicago's Midway International Airport were on-time.

Southern Indiana residents may use international airports in nearby Louisville and Cincinnati. In June 2019, 70.3 percent of arrivals and 72.9 percent of departures were on-time at Cincinnati/Northern Kentucky's International Airport. On-time statistics are similar at Louisville's Muhammad Ali International Airport with 73.3 percent of on-time arrivals and 75.6 percent of on-time departures.

¹¹⁵ U.S. Department of Transportation. *Air Travel Consumer Report, August 2020*.

¹¹⁶ U.S. Department of Transportation. *Air Travel Consumer Report, August 2019*.

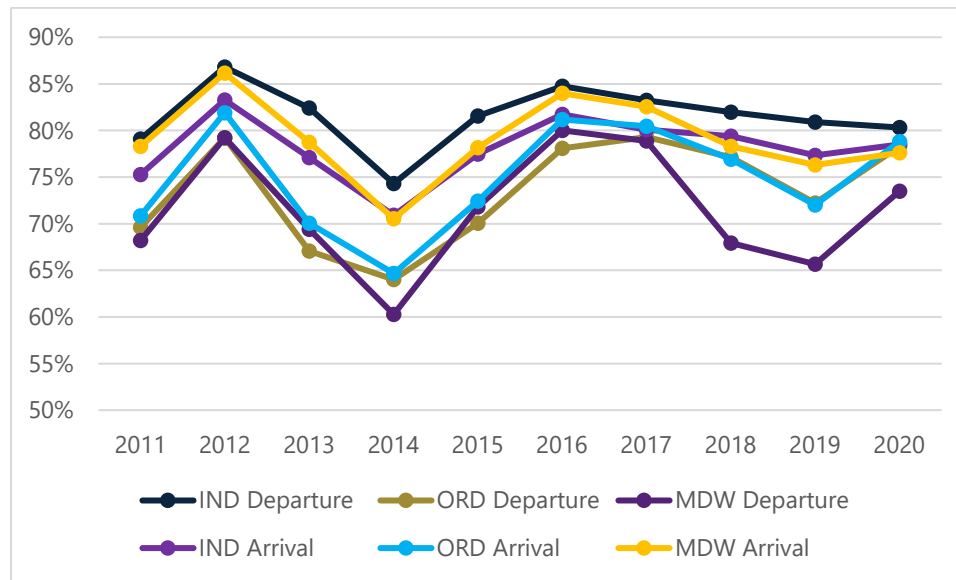
¹¹⁷ U.S. Federal Aviation Administration. *Airport Categories*.



On-time statistics were relatively higher in June 2020. For Cincinnati, 89.3 percent of flights arrived on-time and 94.1 percent of flights departed on-time. Louisville also reported a high percentage of on-time statistics with 90.4 percent and 93.7 percent of flights arriving and departing on-time respectively.

From 2011 to 2020, the percentage of flights arriving on-time to Indianapolis varied between 70 percent and 83 percent with no clear trend (see Figure 3-22). While weather is commonly a major factor in airport delays, weather tends to be unpredictable and vary year to year. Annual arrival and departure delay statistics at Indianapolis International Airport, O’Hare International Airport, and Midway International Airport were largely similar, generally falling within a 10 to 15 percent range of each other and with no clear trend across time. There were select years (2012, 2016, 2017) where the on-time departures and arrivals at all three airports were greater than their averages between 2011 and 2020. OTP in 2020 at all airports was better than OTP in 2011. While these are reflected national trends, it should be noted that 2020 may be a unique year due to COVID-19 related impacts on air travel. OTP in 2019 only was a slight improvement from OTP in 2011 for Indianapolis and Chicago O’Hare, while OTP in 2019 slightly declined relative to OTP in 2011 for Chicago Midway. This is reflected in the national trends where departures did not change notably between 2011 and 2016, and arrivals improved slightly in that timeframe.¹¹⁸

Figure 3-22 – Percentage of Arrivals and Departures On-Time (January – June)



Source: U.S. Bureau of Transportation Statistics. *On-Time Performance – Flight Delays at a Glance (January to June)*

¹¹⁸ U.S. Bureau of Transportation Statistics. *On-Time Performance – Flight Delays at a Glance (January to June)*.



3.15 Land Use and Community Impacts

The fastest growing regions in Indiana are around the city of Indianapolis. Hamilton County, located just north of Indianapolis, saw its population grow by an estimated 22.2 percent from 2010 to 2019, which is about six times greater than the state as a whole. As described earlier in this Chapter, STATS Indiana projections show high growth between 2020 and 2050 in Hamilton County, Hendricks County, Boone County, Johnson County, and Hancock County. Population and employment growth are well-documented drivers of economic activity increasing the demand for both passenger and freight rail.

In 2010, the Indianapolis Metropolitan Planning Organization (MPO) began planning to reduce potential land use conflicts between rail and urban growth focusing on the interaction between freight and passenger rail.¹¹⁹ This planning was aimed at improving access to intermodal facilities and passenger rail stations while minimizing land use and community impacts. For example, the legacy rail yards and factories that were located close to residential areas so workers could walk to their jobs are now often incompatible with current and future redevelopment plans. The MPO study recommended relocating freight trains to a circular beltline route around the city to improve passenger train access to the center city. This study also identified intermodal transfer areas and commercial vehicle bottlenecks to improve access to these locations.

The Indiana Gateway Project was also aimed at reducing conflicts between rail traffic and urban land uses by reducing lengthy rail crossing blockages between Porter, Indiana, and the Indiana/Illinois state line.¹²⁰ Completed in 2017, the project added universal crossovers and constructing a third mainline track (Norfolk Southern Chicago Line) to provide train dispatchers with additional alternatives for reducing delays and congestion for freight and passenger trains in and out of Chicago.

3.16 Environmental Context of Rail

The value of freight and passenger rail infrastructure and service can also be observed in the extent of economic benefits that are derived from rail use. In particular, rail use as compared to shipping goods by truck or traveling by passenger vehicles reduces external social and environmental impacts (i.e., “externalities”).

Externalities, such as roadway congestion, air pollutant emissions, road crashes, and pavement damage, can be measured in monetary terms using standard economic methods and parameters.

¹¹⁹ <https://www.indympo.org/whats-completed/regional-plans/freight-plans>

¹²⁰ Indiana Department of Transportation, Indiana Gateway flyer. Retrieved from: https://www.in.gov/indot/files/Rail_IndianaGatewayflyer.pdf



The magnitude of these benefits is driven by the numbers of truck and passenger vehicle miles avoided because of the availability of rail. In addition, since shipping costs for freight rail are lower than trucks, cost savings from rail use would translate into lower product costs, assuming that markets for such goods are competitive – a common assumption. On average, railroads are four times more fuel efficient than trucks. Moving freight by rail instead of truck reduces greenhouse gas emissions by 75 percent. One train can carry as much freight as several hundred trucks. Significant freight volumes traverse Indiana’s rail network annually.

Diverting goods and passenger movements from trucks and passenger vehicles to rail would result in social and environmental benefits to Indiana’s residents such as travel time savings, accident cost savings, environmental cost savings, and pavement maintenance cost savings.

3.17 Conclusion

Indiana freight movements include outbound, inbound, intrastate, and interstate (through) across a wide range of commodities, destinations, and measures such as tonnage and carloads. A condensed summary of the analysis is provided below:

Total Movements – A total of 345.2 million tons within 7.9 million carloads were moved throughout Indiana in 2018, with a tons/carload utilization of 43.6.

Outbound – Accounted for 14.8 percent (51.1 million tons) and 7.4 percent (585,832 carloads) of all tonnage and carloads in 2018, respectively. Coal comprised the largest share of outbound movements with 29.7 percent of tonnage and 14.1 percent of carloads, moved primarily from Vanderburgh County and Gibson County.

Inbound – Inbound movements are somewhat similar in composition to outbound movements, comprising 47.0 million tons (13.6 percent of total tonnage) and 508,735 carloads (6.4 percent of total carloads) in 2018. Coal was the dominant commodity moved, originating primarily in Illinois and then West Virginia, and accounting for over half (52.0 percent) of all inbound movements.

Intrastate – Intrastate represents the smallest share of all tonnage and carloads in 2018 with 26.3 million tons (7.6 percent of total tonnage) and 242,859 carloads (3.1 percent of total carloads) respectively. Similar to outbound and inbound movements, coal is the dominant commodity moved with 20.5 million tons (78.1 percent of total tonnage) and 179,208 carloads (73.8 percent of total carloads).

Through – Accounted for the majority of all Indiana rail movements both in terms of tonnage and carloads. In 2018, through movements accounted for 220.7 million tons (64.0 percent of total tonnage) and 6.6 million carloads (83.1 percent of total carloads).



4 Trends and Forecasts

4.1 Freight Demand and Growth

4.1.1 Summary

The socioeconomic factors discussed in Chapter 3 impact both freight and passenger rail forecasts.¹²¹

The 2018 Surface Transportation Board (STB) Carload Waybill Sample data provides a starting point for building forecasts of future rail movements in Indiana by direction (inbound, outbound, intrastate, and through) and commodity. Actual forecasts are derived from the Freight Analysis Framework (FAF4) database. FAF4 data provides a suitable means by which to assess future growth in tonnage, despite being less comprehensive than the STB Waybill Sample data.¹²² Due to the FAF4 data being presented in Standard Classification of Transported Goods (SCTG) commodity terms, as opposed to Standard Transportation Commodity Code (STCC) terms used by the STB, a mapping of top commodities in Indiana was done to forecast 2018 rail tonnage to years 2030 and 2045.¹²³ Forecasts for all commodities that originate or terminate in Indiana are based on 2012-to-2030 and 2030-to-2045 growth rates projected in the FAF4 database of rail movements in Indiana. An annual growth rate of 1.2 percent from FAF's forecast report on U.S. national movement trends was applied to through tonnage values.^{124,125} Years 2030 and 2045 Indiana rail forecasts were derived by applying growth rates by direction and commodity to 2018 freight transported by rail in Indiana.

Note that the following forecasts are based on projections from well-recognized and widely used sources such as the Energy Information Administration (EIA) and FAF4. They do not account for unpredictability caused by the COVID-19 pandemic or other force majeure factors.

Summary forecasts comparing 2018 and 2045 Indiana rail movements by tonnage is presented in Table 4-1.

¹²¹ Amtrak ridership projections are presented in section 4.2.3.

¹²² FAF4 does not provide historical or forecast data at the county level.

¹²³ This section presents forecasts for the year 2045. Refer to Appendix A for year 2030 forecasts.

¹²⁴ Freight Analysis Framework Inter-Regional Commodity Flow Forecast Study. 2016. Retrieved from: <https://ops.fhwa.dot.gov/publications/fhwahop16043/index.htm#figure3>

¹²⁵ FAF4 does not provide through movements since specific routings of freight movements are not specified.



Table 4-1 – Forecast Summary, 2018-2045

Direction	2018		2045		Change		
	Amount	Percent	Amount	Percent	Amount	Percent	CAGR
Outbound	51,130,122	14.8%	65,647,000	14.7%	14,516,878	28.4%	0.9%
Inbound	47,047,718	13.6%	54,805,000	12.3%	7,757,282	16.5%	0.6%
Intrastate	26,255,802	7.6%	20,650,000	4.6%	-5,605,802	-21.4%	-0.9%
Through	220,741,673	64.0%	304,620,000	68.3%	83,878,327	38.0%	1.2%
Total	345,175,315	100.0%	445,722,000	100.0%	100,546,685	29.1%	1.0%

Source: HDR Analysis of 2018 STB Waybill Sample Data and FAF4 Forecasts

Note: CAGR stands for compound annual growth rate.

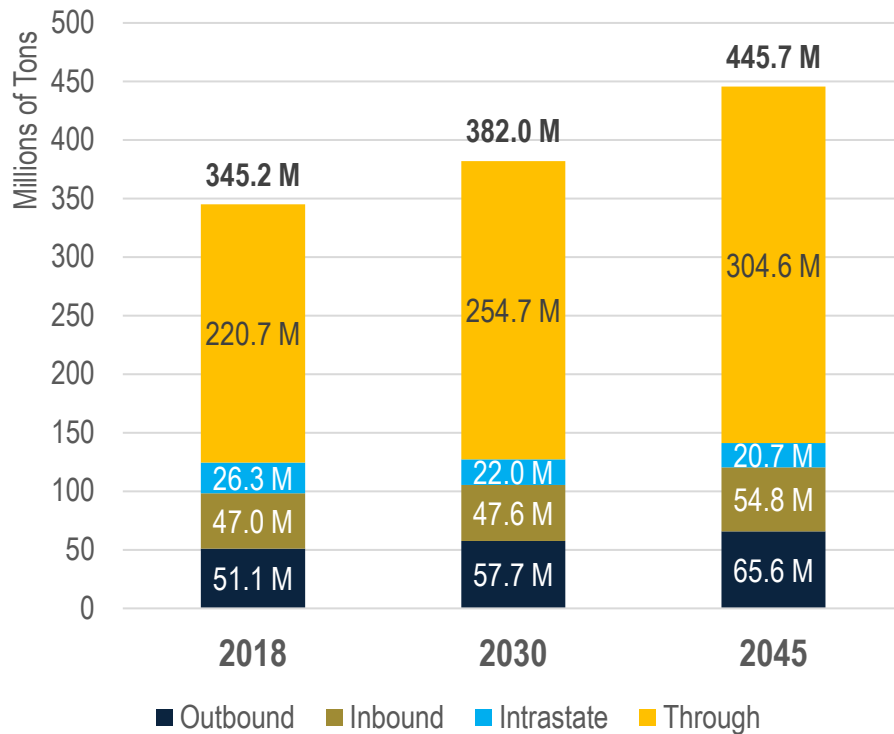
Total rail freight in Indiana is expected to grow from 345.2 million tons in 2018 to 445.7 million tons in 2045, representing an absolute growth rate of 29.1 percent, or 1.0 percent per year on average. The overall directional composition of rail movements is expected to change slightly, with inbound freight encompassing a smaller share in 2045 (12.3 percent) as opposed to 2018 (13.6 percent).

Outbound rail traffic is projected to increase from 51.1 million tons in 2018 to 65.6 million tons in 2045, representing an absolute growth of 28.4 percent, or 0.9 percent per year on average. Inbound rail traffic will grow by 0.6 percent per year on average, rising from 47.0 million tons in 2018 to 54.8 million tons in 2045. Intrastate rail traffic is forecasted to decrease approximately 0.9 percent per year on average to 20.7 million tons in 2045. More notably, through rail traffic is expected to increase from 220.7 million tons in 2018 to 304.6 million tons in 2045, representing an absolute growth of 38.0 percent, or 1.2 percent per year on average.

Figure 4-1 presents the forecast summary of rail tonnage by direction for 2045 and compares it to estimates derived from the STB Waybill Sample data for 2018.



Figure 4-1 – Forecast Summary, 2018 – 2045



Source: HDR Analysis of 2018 STB Waybill Sample Data and FAF4 Forecasts

4.1.2 Major Commodity Movements by Direction

Total originating and terminating rail movements in Indiana are projected to increase from 124.4 million tons in 2018 to 141.1 million tons in 2045.¹²⁶ The breakdown of the forecast at the commodity level is presented in Table 4-2. Almost all commodities are expected to increase in total tonnage moved by rail for originating and terminating movements. Total coal tonnage is forecasted to decrease by 35.5 percent in 2045 compared to 2018 due to changes in the energy market and a general decrease in demand for coal (e.g., increase in demand for alternative fuels such as natural gas and cleaner energy generation options, environmental regulations and concerns, etc.).

¹²⁶ Originating and terminating movements include outbound, inbound and intrastate rail movements.



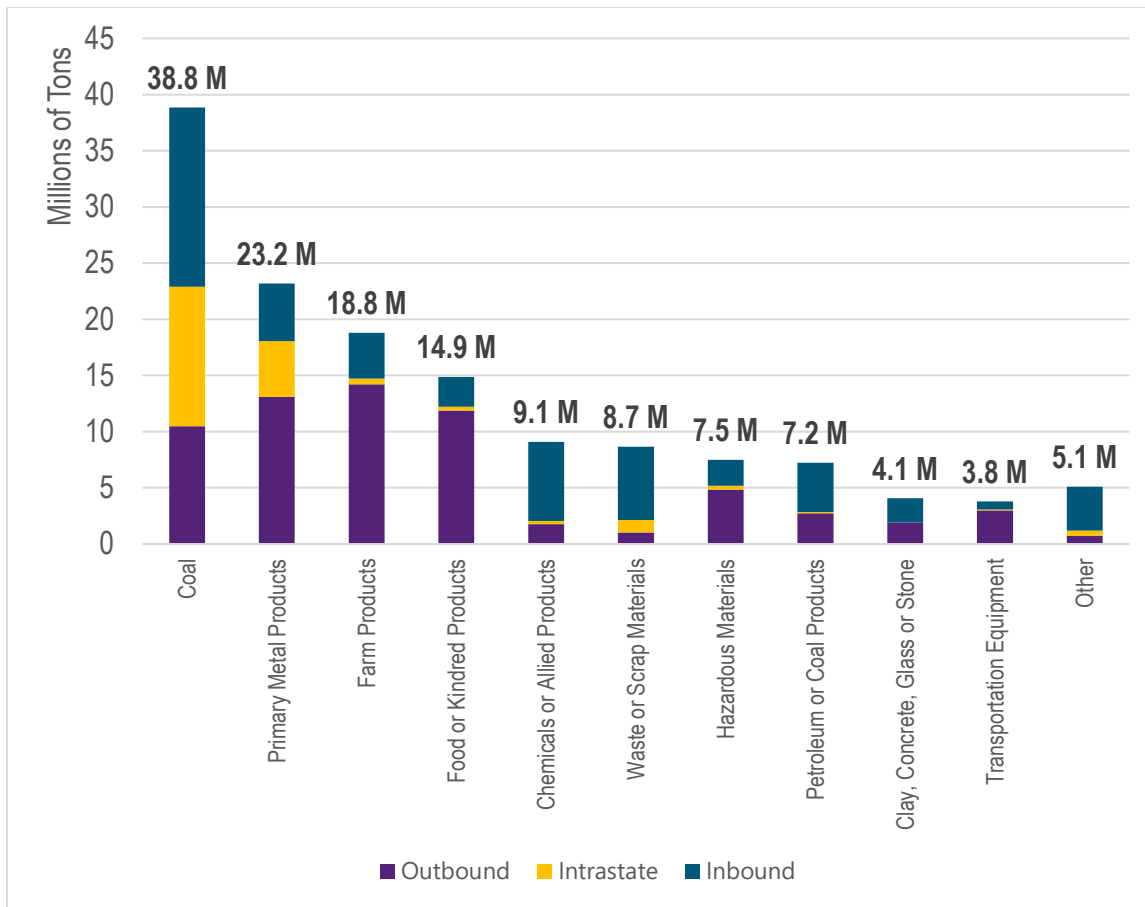
Table 4-2 – Forecast of Originating and Terminating Commodity Movements in Indiana, 2018 – 2045

Commodity Group	2018		2045	
	Tons	Tons	% Change	CAGR
Coal	60,175,912	38,834,000	-35.5%	-1.6%
Primary Metal Products	16,000,688	23,177,000	44.8%	1.4%
Food or Kindred Products	9,763,725	14,858,000	52.2%	1.6%
Farm Products	10,548,439	18,797,000	78.2%	2.2%
Hazardous Materials	5,433,902	7,499,000	38.0%	1.2%
Petroleum or Coal Products	3,897,363	7,227,000	85.4%	2.3%
Transportation Equipment	2,243,358	3,784,000	68.7%	2.0%
Chemicals or Allied Products	5,646,496	9,082,000	60.8%	1.8%
Clay, Concrete, Glass or Stone	1,930,304	4,076,000	111.1%	2.8%
Waste or Scrap Materials	5,345,132	8,670,000	62.2%	1.8%
Other	3,448,323	5,099,000	47.9%	1.5%
Total	124,433,642	141,103,000	13.4%	0.5%

Source: HDR Analysis of 2018 STB Waybill Sample Data and FAF4 Forecasts

Note: CAGR stands for compound annual growth rate.

Figure 4-2 – Freight Flow by Commodity and Direction, 2045



Source: HDR Analysis of 2018 STB Waybill Sample Data and FAF4 Forecasts

Over 38.8 million tons of coal will originate or terminate in Indiana in 2045. Coal is still expected to dominate other commodities originating or terminating in Indiana in 2045, accounting for 27.2 percent of all originating or terminating commodity tonnage moved by Indiana rail. However, coal is projected to decrease by 21.3 million tons in 2045 compared to 2018, which represents a reduction of nearly 36.0 percent.

The relative importance of commodities such as metal, farm, and food products will significantly grow between 2018 and 2045, accounting for approximately 40.3 percent of total commodity movements.¹²⁷ Primary metal products will remain the second most important commodity originating or terminating in Indiana in terms of tonnage. An additional 7.2 million tons will be

¹²⁷ In 2018, metal, food and farm products accounted for 29.2 percent of originating and terminating commodities.



moved by freight rail in 2045. Metal products shipped by rail to and from Indiana include iron and steel products. Farm products and food or kindred products are projected to increase by 8.2 million tons and 5.1 million tons respectively in 2045 compared to 2018. For farm products, main agricultural exports are corn and soybeans. Imports include wheat in addition to corn and soybeans. Growth among the rest of the commodities presented in Table 4-2 and Figure 4-2 represents a 17.5 million ton increase from 2018, however the share of total tonnage of these commodities in 2045 accounts for less than a third of originating or terminating tonnage.

The grouping of other commodities includes logs, lumber, or wood products, shipping containers, metallic ores, electrical equipment, machinery, rubber, and other products. These other commodities will account for less than 4.0 percent of tonnage moved by rail in 2045.

4.1.3 Forecast of Outbound Movements

Forecasted outbound movements are expected to grow from 51.1 million tons in 2018 to 65.6 million tons in 2045, representing an absolute growth of 28.4 percent, or 0.9 percent per year on average. The forecast of the top 10 outbound commodities and their comparison to base 2018 results are shown in Table 4-3 and Figure 4-3.

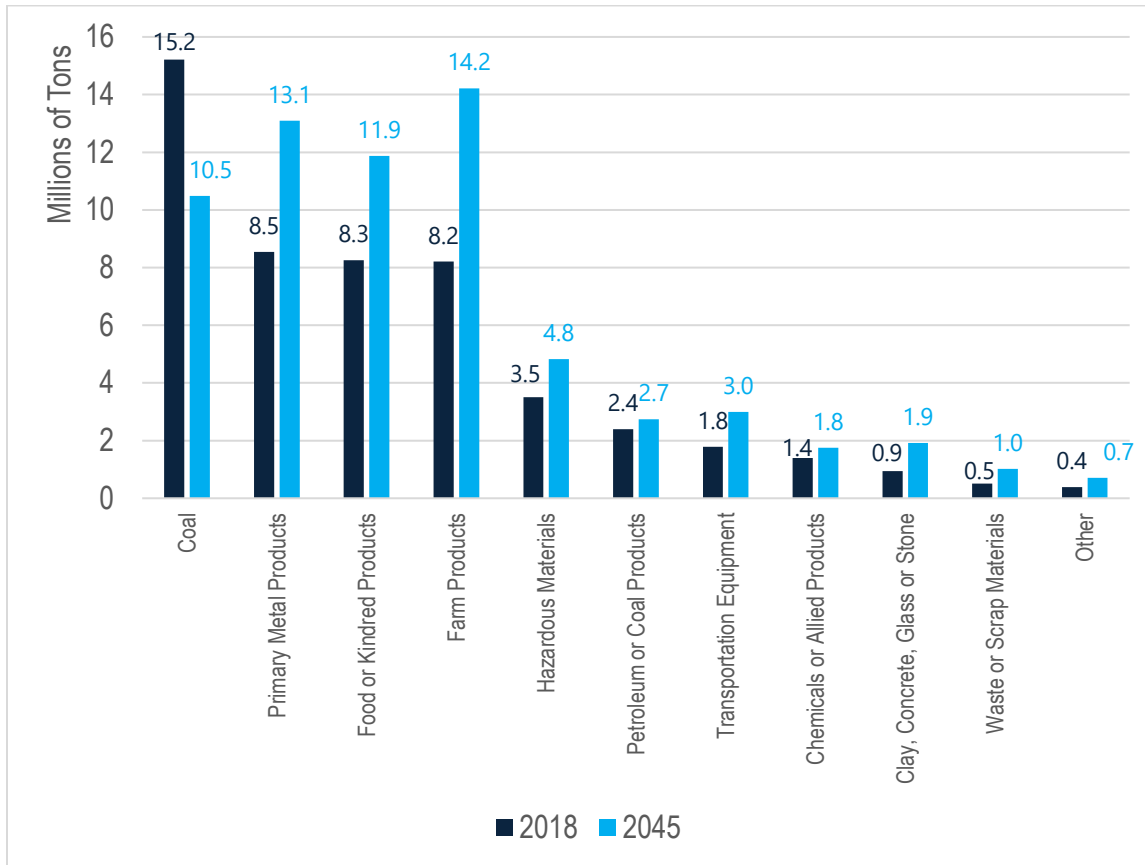
Table 4-3 – Forecast of Rail Outbound Movement, 2018 – 2045

Commodity Group	2018		2045	
	Tons	Tons	% Change	CAGR
Coal	15,209,661	10,490,000	-31.0%	-1.4%
Primary Metal Products	8,539,167	13,097,000	53.4%	1.6%
Food or Kindred Products	8,259,913	11,875,000	43.8%	1.4%
Farm Products	8,209,374	14,213,000	73.1%	2.1%
Hazardous Materials	3,499,871	4,830,000	38.0%	1.2%
Petroleum or Coal Products	2,397,796	2,741,000	14.3%	0.5%
Transportation Equipment	1,782,768	2,992,000	67.8%	1.9%
Chemicals or Allied Products	1,398,940	1,755,000	25.5%	0.8%
Clay, Concrete, Glass or Stone	942,720	1,919,000	103.6%	2.7%
Waste or Scrap Materials	504,512	1,021,000	102.4%	2.6%
Other	385,400	714,000	85.3%	2.3%
Total	51,130,122	65,647,000	28.4%	0.9%

Source: HDR Analysis of 2018 STB Waybill Sample Data and FAF4 Forecast

Note: CAGR stands for compound annual growth rate.

Figure 4-3 – Rail Outbound Top Commodities by Tonnage, 2018 – 2045



Source: HDR Analysis of 2018 STB Waybill Sample Data and FAF4 Forecasts

The main changes in commodity breakdown for outbound movements between 2018 and 2045 are the following:

1. Coal tonnage is projected to decrease by 31.0 percent (1.4 percent annually) to 10.5 million tons.
2. Metal products tonnage is projected to increase by 53.4 percent (1.6 percent annually) to 13.1 million tons.
3. Food or kindred products tonnage is projected to increase by 43.8 percent (1.4 percent annually) to 11.9 million tons.
4. Farm products tonnage is projected to increase by 73.1 percent (2.1 percent annually) to 14.2 million tons.
5. Projected tonnage increases in the remaining commodities are significant, but smaller in magnitude.



4.1.4 Forecast of Inbound Movements

Forecasted inbound movements are expected to grow from 47.0 million tons in 2018 to 54.8 million tons in 2045, representing an absolute growth of 16.5 percent, or 0.6 percent per year on average. The forecast of the top 10 inbound commodities and their comparison to base 2018 results are shown in Table 4-4 and Figure 4-4.

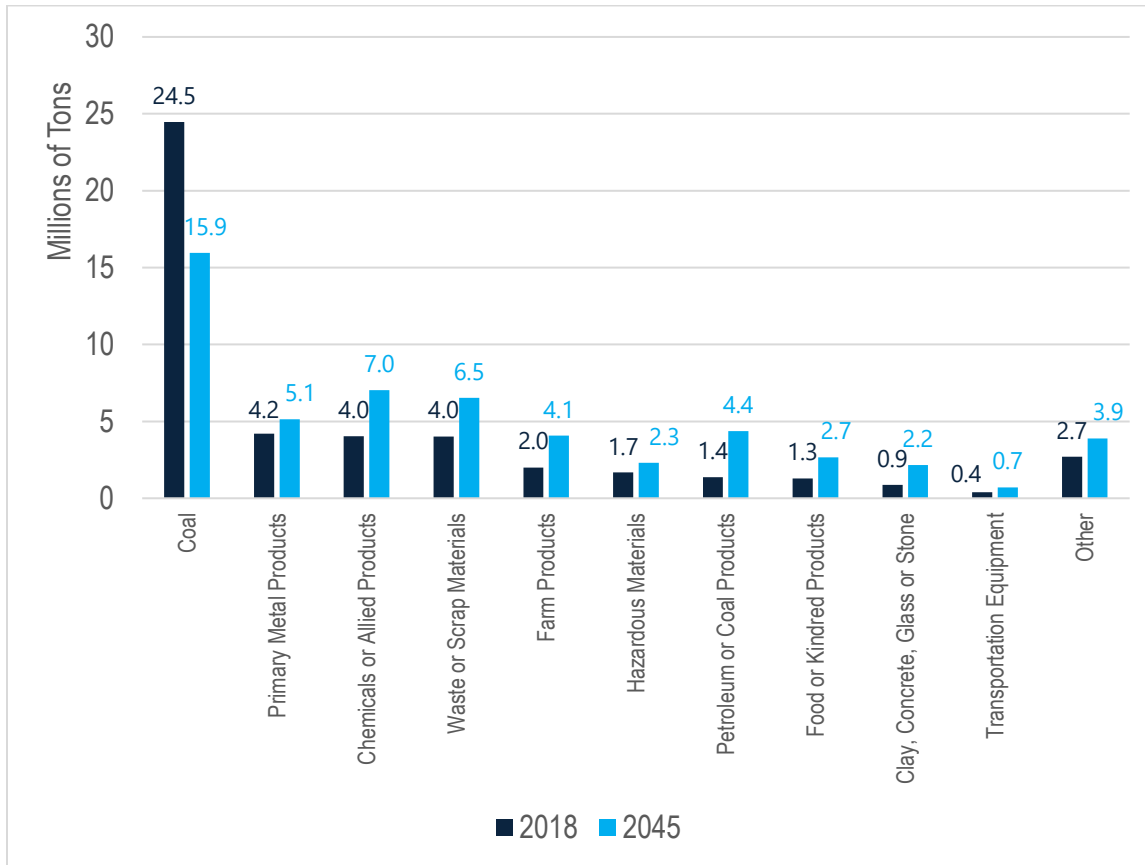
Table 4-4 – Forecast of Rail Inbound Movement, 2018 – 2045

Commodity Group	2018	2045		
	Tons	Tons	% Change	CAGR
Coal	24,470,672	15,949,000	-34.8%	-1.6%
Primary Metal Products	4,191,838	5,128,000	22.3%	0.7%
Chemicals or Allied Products	4,042,600	7,040,000	74.1%	2.1%
Waste or Scrap Materials	4,017,308	6,523,000	62.4%	1.8%
Farm Products	2,004,373	4,077,000	103.4%	2.7%
Hazardous Materials	1,673,335	2,309,000	38.0%	1.2%
Petroleum or Coal Products	1,376,807	4,367,000	217.2%	4.4%
Food or Kindred Products	1,292,528	2,652,000	105.2%	2.7%
Clay, Concrete, Glass or Stone	872,544	2,157,000	147.2%	3.4%
Transportation Equipment	393,830	711,000	80.5%	2.2%
Other	2,711,883	3,892,000	43.5%	1.3%
Total	47,047,718	54,805,000	16.5%	0.6%

Source: HDR Analysis of 2018 STB Waybill Sample Data and FAF4 Forecasts

Note: CAGR stands for compound annual growth rate.

Figure 4-4 – Rail Inbound Top Commodities by Tonnage, 2018 – 2045



Source: HDR Analysis of 2018 STB Waybill Sample Data and FAF4 Forecasts

The main changes in commodity breakdown for inbound movements between 2018 and 2045 are the following:

1. Coal tonnage is projected to decrease by 34.8 percent (1.6 percent annually) to 15.9 million tons.
2. Metal products tonnage is projected to increase by 22.3 percent (0.7 percent annually) to 5.1 million tons.
3. Chemical or allied products tonnage is projected to increase by 74.1 percent (2.1 percent annually) to 7.0 million tons.
4. Waste or scrap material tonnage is projected to increase by 62.4 percent (1.8 percent annually) to 6.5 million tons.
5. Farm products tonnage is projected to more than double in the same period from 2.0 to 4.1 million tons (2.7 percent annual growth).



4.1.5 Forecast of Intrastate Movements

Intrastate rail traffic is forecasted to decrease approximately 0.9 percent per year on average to 20.7 million tons in 2045, due to a sharp decline in coal traffic which accounted for over 78.0 percent of total intrastate rail tonnage. The forecast of the top 10 commodities traveling within the state (i.e., origin and destination in Indiana) and their comparison to base 2018 results are shown in Table 4-5 and Figure 4-5.

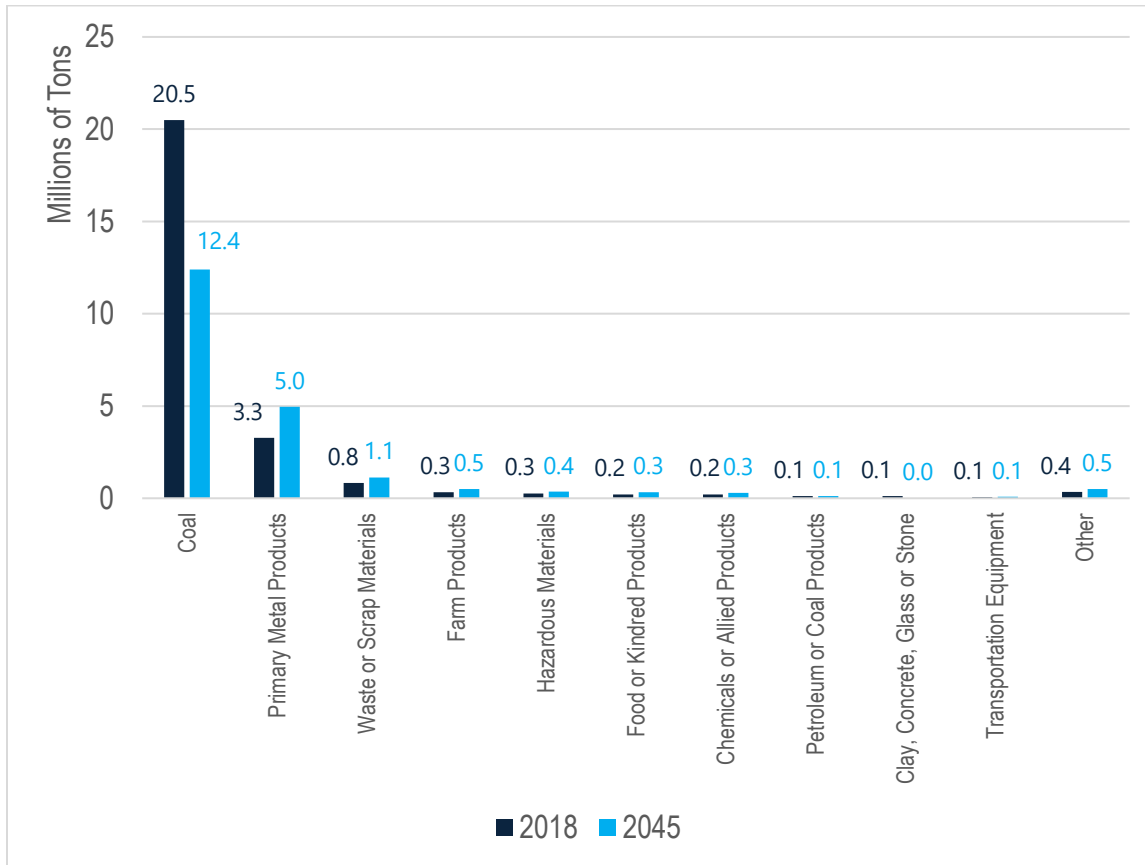
Table 4-5 – Forecast of Rail Intrastate Movements, 2018 – 2045

Commodity Group	2018		2045	
	Tons	Tons	% Change	CAGR
Coal	20,495,579	12,395,000	-39.5%	-1.8%
Primary Metal Products	3,269,683	4,952,000	51.5%	1.5%
Waste or Scrap Materials	823,312	1,126,000	36.8%	1.2%
Farm Products	334,692	507,000	51.5%	1.6%
Hazardous Materials	260,696	360,000	38.1%	1.2%
Food or Kindred Products	211,284	331,000	56.7%	1.7%
Chemicals or Allied Products	204,956	287,000	40.0%	1.3%
Petroleum or Coal Products	122,760	119,000	-3.1%	-0.1%
Clay, Concrete, Glass or Stone	115,040	n/a	n/a	n/a
Transportation Equipment	66,760	81,000	21.3%	0.7%
Other	351,040	493,000	40.4%	1.3%
Total	26,255,802	20,651,000	-21.3%	-0.9%

Source: HDR Analysis of 2018 STB Waybill Sample Data and FAF4 Forecasts

Note: CAGR stands for compound annual growth rate.

Figure 4-5 – Rail Intrastate Top Commodities by Tonnage, 2018 – 2045



Source: HDR Analysis of 2018 STB Waybill Sample Data and FAF4 Forecasts

The main changes in commodity breakdown for intrastate movements between 2018 and 2045 are the following:

1. Coal tonnage is projected to decrease by 39.5 percent (1.8 percent annually) to 12.4 million tons.
2. Metal products tonnage is projected to increase by 51.5 percent (1.5 percent annually) to 5.0 million tons.
3. Waste or scrap material tonnage is projected to increase by 36.8 percent (1.2 percent annually) to 1.1 million tons.
4. Farm products tonnage is projected to increase by 51.5 percent (1.6 percent annually) to 0.5 million tons.
5. The changes in rail tonnage in the remaining commodities are much smaller in magnitude.



4.1.6 Forecast of Through Movements

Since FAF4 does not forecast through movements, an annual growth rate of 1.2 percent from FAF's forecast report on U.S. national movement trends was applied to through movement tonnage values in 2018.¹²⁸ Therefore, through rail traffic is expected to increase from 220.7 million tons in 2018 to 304.6 million tons in 2045, representing an absolute growth of 38.0 percent.

4.1.7 Industrial Outlook by Sector

4.1.7.1 Coal Market Trends

Indiana was ranked seventh among the U.S. states in 2018 in terms of coal production.¹²⁹ However, according to the U.S. Energy Information Administration (EIA), Indiana's coal production does not meet the state's own demand for coal for electricity generation and industrial sectors, such as the steel industry. Indiana has thus imported 9.3 million more tons of coal in 2018 than it exported. The majority of these coal exports came from Illinois (78.5 percent of inbound coal movement) and West Virginia (14.9 percent of inbound coal movement).¹³⁰

U.S. coal market trends will affect Indiana's rail tonnage movements in the future with national and regional coal production and environmental policies in the U.S. impacting coal movement by rail in Indiana.

Figure 4-6 shows EIA's projections of coal production in the U.S.

¹²⁸ Freight Analysis Framework Inter-Regional Commodity Flow Forecast Study. 2016. Retrieved from:

<https://ops.fhwa.dot.gov/publications/fhwahop16043/index.htm#figure3>

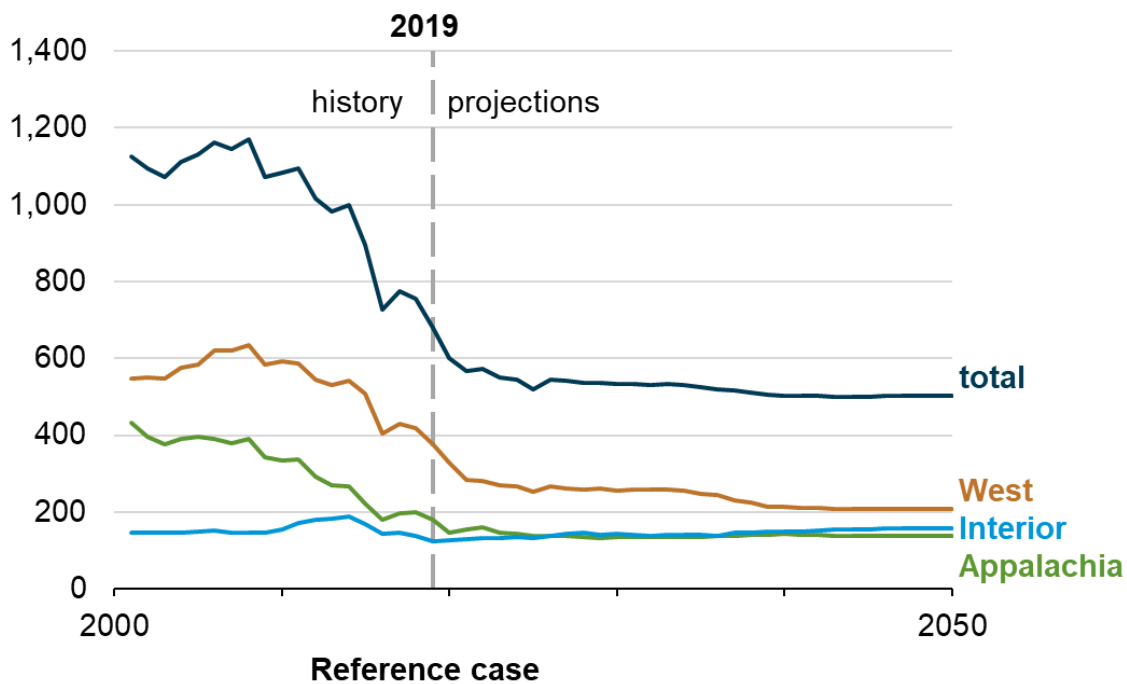
¹²⁹ U.S. Energy Information Administration (EIA), State Energy Profile. Retrieved from:

<https://www.eia.gov/state/print.php?sid=IN>

¹³⁰ HDR Analysis of STB Waybill Data 2018.

Figure 4-6 – U.S. Coal Production by Region, 2000 – 2050

AEO2020 coal production by region
million short tons



Source: U.S. EIA, Annual Energy Outlook 2020¹³¹

As one of 10 states which comprise the Interior coal region, Indiana’s coal production accounts for 4.5 percent of total U.S. coal production.¹³² Although Interior region’s coal production seems to have already leveled off, total coal production in the U.S. is expected to decline in the future.¹³³ Due to competition from natural gas and increasing generation from renewable energy, coal-fired generation capacity in the U.S. is anticipated to decline by around 46 percent between 2019 and 2025. The retirement of coal-fired generation will decrease coal production through 2025, after which total coal production will start to level off.

¹³¹ U.S. EIA, Annual Energy Outlook 2020, <https://www.eia.gov/outlooks/aeo/pdf/AEO2020%20Full%20Report.pdf> (page 90).

¹³² The Interior coal region includes the following states: Arkansas, Illinois, Indiana, Kansas, Louisiana, Mississippi, Missouri, Oklahoma, Texas, and Western Kentucky. The EIA estimates that about 18 percent of total U.S. coal was mined in the Interior coal region in 2019.



EIA's forecast of decrease in national coal production is in line with FAF's forecast of outbound and inbound coal movements in Indiana. Based on FAF data, outbound volumes of coal movement from Indiana is projected to decrease at an annual rate of 1.7 percent between 2012 and 2030, and 1.1 percent between 2030 and 2045, while inbound movement is projected to decrease at an annual rate of 2.2 percent between 2012 and 2030 and 1.1 percent between 2030 and 2045. FAF forecasts that Wyoming, Illinois, North Dakota, and West Virginia will remain as main sources of coal for Indiana's inbound coal movement in 2045. The main receivers of Indiana's coal are expected to be Florida and Kentucky.

4.1.7.2 Metal Products Trends

Metal products are a major commodity group shipped by rail to and from Indiana. Iron and steel metals are the main types of metals that originate or terminate in Indiana. Over 70 percent of outbound metal freight movements originate in the northwest of Indiana, where most of the steel industry is concentrated.¹³⁴ Approximately 27 percent of metal products originating in Indiana is shipped intrastate.

Ohio is the top importer of Indiana's iron and steel products that are shipped by rail. Alabama, Illinois, and Pennsylvania are also big recipients of Indiana's metal products. On the receiving end, counties in the southern and northern edges of the state import most of the incoming metal products by rail. Ohio is also the top exporter of metal products via rail to Indiana. FAF forecasts indicate Ohio will remain the main destination and origin of metal products shipped by rail to and from Indiana in 2045.

4.1.7.3 Farm Products Trends

The agricultural sector is vital to Indiana's economy with over 80 percent of its land dedicated to farms and forests. The state is also ranked 10th in total agricultural production.¹³⁵ Indiana exports nearly four times more farm products than it imports by rail. Main agricultural exports of Indiana by rail are corn (approximately 70 percent of outbound tonnage) and soybeans (around 22 percent of outbound tonnage). Most of this outbound movement is directed to the south and southeast (Georgia, Alabama, North Carolina and Tennessee).

Most of the inbound movement of farm products originates in Illinois, which exports corn, soybeans, and wheat to Indiana by rail. FAF forecasts that the total tonnage of farm products originating or terminating in Indiana will grow by 78 percent between 2018 and 2045.

¹³⁴ American Iron and Steel Institute, The Steel Industry in Your State: Indiana. Retrieved from:

<https://www.buildingindiana.com/wp-content/uploads/2018/10/Indiana-Impact-Report.pdf>

¹³⁵ Indiana State Department of Agriculture. Retrieved from: <https://www.nasda.org/organizations/indiana-state-department-of-agriculture#:~:text=Indiana%20is%20ranked%2010th,eggs%20produced%20and%20cover%20crops>



4.1.7.4 Food or Kindred Products

Food products are one of the top commodity groups shipped by rail in Indiana. Like agricultural products, Indiana exports more food products than it receives (approximately six times more). Almost half of the outbound food products movements by rail are soybean cake, flour, grits, or other by-products. Other major food products are by-products of liquor distilling, mineral waters, and corn syrup. Main markets for Indiana’s food products exports by rail are Illinois, Georgia, North Carolina, and Alabama. Over 50 percent of food product exports originate in Tippecanoe, Shelby, and Kosciusko counties.

Illinois is the top exporter of food products by rail to Indiana. FAF projects Georgia and Ohio to be the main receivers of food products by rail from Indiana in year 2045, while Illinois and North Dakota are projected to be the main sources of food products by rail.

4.2 Passenger Travel Demand and Growth

4.2.1 Travel Demand – Highways

Projections indicate travel demand within, and to/from Indiana will continue to grow in the future. Overall vehicle miles traveled (VMT) is projected to grow by 25.9 percent (see Table 4-6) between 2015 and 2045 according to the Indiana Statewide Travel Demand Model (ISTDM). In terms of a general trend, it can be expected that travel, particularly on state and federal highways, will increase as the population grows and overall economy expands. The increases in highway travel will align with population and economic growth centers in the vicinity of Indianapolis, Evansville, and South Bend.

Table 4-6 – Estimated VMT on Indiana DOT Roadways by Classification, 2015 and 2045

Functional Class	Lane- Miles	2015 Daily VMT	2045 Daily VMT	Percent Change
Interstate	6,048	54,899,142	66,406,638	21.0%
Primary (i.e. Other Freeways, Arterials)	11,076	43,234,090	54,631,738	26.4%
Secondary (Minor Arterial, Major Collector, Minor Collector, Local)	30,812	39,212,426	51,889,078	32.3%
Grand Total	47,937	137,345,658	172,927,455	25.9%

Source: ISTDM, 2020

However, the number of roadway lane-miles is projected to increase at a much slower rate compared to VMT. Between 2010 and 2045, the ISTDM projects the total number of roadway miles to increase by 1.2 percent. Travel time will increase significantly due to traffic congestion caused by population and VMT growth. According to the *2018-2045 Long-Range Transportation Plan*, daily delay in vehicle



hours is expected to increase from 1.7 million hours in 2015 to 5.1 million hours in 2045. Daily cost associated with daily delay will increase from \$54.5 million in 2015 to \$161.4 million in 2045.¹³⁶

4.2.2 Travel Demand – Air Travel

There are approximately 117 public use airports, including four primary commercial service airports, one non-primary commercial service airport, seven reliever airports, and 105 general aviation airports in Indiana. The airport system “provides critical services to enhance the quality of life, health, safety, and welfare of Indiana residents and local businesses.”¹³⁷ There were approximately 4.7 million enplanements in 2019 (ranked 47th in the U.S) at Indianapolis International Airport (IND) which is the state’s largest commercial service airport.¹³⁸

The airport is also home to FedEx Express’ second largest air cargo hub, which places it among the world’s largest airports by annual cargo tonnage throughput.

The top five busiest airports in Indiana are:

1. Indianapolis International Airport (IND)
2. Fort Wayne International Airport (FWA)
3. South Bend International Airport (SBN)
4. Evansville Regional Airport (EVV)
5. Purdue University Airport (LAF)

IND is currently served by nine airlines with nonstop services to 43 destinations.¹³⁹ Due to the impact of COVID-19, flight schedules and availability may vary.

Table 4-7 presents enplanement and tonnage cargo data at IND between 2015 and 2019. Enplanements rose from approximately 4.0 million in 2015 to nearly 4.8 million in 2019, accounting for an increase of 18.9 percent. For 2020, enplanement data is currently available up to September. The drop in passenger air traffic due to COVID-19 has led to a decrease in the number of enplanements at IND. Between January and September 2020, there were approximately 1.5 million enplanements at IND compared to approximately 3.5 million enplanements during the same period in 2019. Cargo tonnage declined slightly from nearly 1.1 million tons in 2015 to 1.0 million tons in 2019, accounting for a decrease of 6.8 percent. Like enplanement data, tonnage cargo data for 2020

¹³⁶ Indiana Department of Transportation, Long-Range Transportation Plan 2018-2045.

¹³⁷ Ibid.

¹³⁸ Federal Aviation Administration, Commercial Service Enplanements Calendar Year 2019.

¹³⁹ The list of airlines includes: Air Canada, Alaska Air, Allegiant, American, Delta, Frontier, Spirit, Southwest, and United. This list is up to date as of January 2021.



is currently available up to September. Between January and September 2020, 790 thousand tons of cargo were moved at IND compared to 727 thousand tons during the same period in 2019, representing an increase of 8.7 percent.

Table 4-7 – Enplanements and Cargo Tonnage Data at IND, 2015-2019

Year	Enplanements	Cargo Tonnage
2015	4,008,256	1,084,857
2016	4,239,828	1,065,114
2017	4,387,532	1,038,615
2018	4,697,124	1,054,766
2019	4,765,409	1,010,825

Source: Indianapolis Airport Authority (IAA) Airline Activity Reports

4.2.3 Travel Demand – Intercity Rail

Station ridership changes are calculated based upon the population growth rate of each county.¹⁴⁰ It is important to note that actual future ridership performance will be based not only on population growth, but also led by changes in income, changes in the number of train frequencies and train schedule times at the station (day vs. night), changes in Amtrak fares versus other modes, and changes in the quality of Amtrak service (i.e., on-time performance).

Population around Indiana’s Amtrak stations is anticipated to increase by 7.2 percent from 2019 to 2050. The strongest ridership growth is likely to occur near Lafayette, Elkhart, Rensselaer, and Indianapolis. A decline in usage is predicted for Connersville, Crawfordsville, Dyer, Hammond-Whiting, Michigan City, and Waterloo as a result of projected negative population growth trends near these stations.

Table 4-8 shows Fiscal Year (FY) 2019 boardings and alightings at Indiana’s 11 intercity rail stations, as well as the forecasts for FY 2050. These projections are based on county population growth rates between FY 2019 and FY 2050.

¹⁴⁰ Stats Indiana, Population Projections 2015-2050. Retrieved from: <https://www.stats.indiana.edu/topic/projections.asp>



Table 4-8 – Indiana's Intercity Rail Stations Boardings and Alightings, FY 2019 and FY 2050

City	County	FY 2019	FY 2050	Change over Period	Annual Change
Connersville	Fayette County	448	356	-20.62%	-0.74%
Crawfordsville	Montgomery County	4,988	4,740	-4.97%	-0.16%
Dyer	Lake County	2,991	2,951	-1.34%	-0.04%
Elkhart	Elkhart County	20,631	24,126	16.94%	0.51%
Hammond-Whiting	Lake County	5,167	5,098	-1.34%	-0.04%
Indianapolis	Marion County	24,937	27,577	10.59%	0.33%
Lafayette	Tippecanoe County	13,307	16,123	21.16%	0.62%
Michigan City	LaPorte County	2,662	2,541	-4.54%	-0.15%
Rensselaer	Jasper County	1,754	2,010	14.58%	0.44%
South Bend	St. Joseph County	19,931	20,044	0.57%	0.02%
Waterloo	DeKalb County	20,995	20,696	-1.43%	-0.05%
Total Indiana Station Usage		117,811	126,261	7.17%	0.22%

Sources: State of Indiana Amtrak Fact Sheet, Fiscal Year 2019; STATS Indiana.

Note: HDR developed ridership projections based on FY 2019 ridership data from Amtrak and county population projections from STATS Indiana. For forecasting purposes, it is assumed that the level of Amtrak service in FY 2050 will not change from what is operating today.

4.3 Conclusion

Indiana’s rail freight tonnage for outbound, inbound, intrastate, and through movements were forecasted for year 2045. A condensed summary of the analysis is provided below:

Total movement – A total of 445.7 million tons is expected to be moved throughout Indiana in 2045, a growth of 29.1 percent compared to 2018.

Outbound – Outbound movements are projected to account for 14.7 percent (65.6 million tons) of total tonnage in 2045. Despite a projected decline in coal traffic, coal will remain the dominating commodity accounting for 16.0 percent of outbound tonnage (10.5 million tons).

Inbound – Inbound movements are similar in composition to outbound movements and are expected to amount to 54.8 million tons (12.3 percent of total tonnage) in 2045. FAF forecasts Indiana to continue importing more coal than it exports, with imports totaling 15.9 million tons (29.1 percent of inbound tonnage).

Intrastate – Intrastate will represent the smallest share of all tonnage in 2045 with 20.7 million tons (4.6 percent of total tonnage). Like outbound and inbound movements, coal is expected to remain the main commodity moved by rail within Indiana, accounting for 12.4 million tons (60.0 percent of intrastate tonnage).



Through – Through movements are projected to increase from 220.7 million tons in 2018 to 304.6 million tons in 2045, representing a growth of 38.0 percent.

Ridership at Indiana’s Amtrak stations is anticipated to increase by 7.2 percent from 2019 to 2050 with the number of boardings and alightings increasing from nearly 118,000 in FY 2019 to approximately 126,000 in FY 2050 assuming that the level of Amtrak service in FY 2050 will not change from what is operating today. Projections are based on population growth, however other factors such as changes in income, changes in the number of train frequencies and train schedule times at the station (day vs. night), changes in Amtrak fares versus other modes, and changes in the quality of Amtrak service (i.e., on-time performance) are likely to have an impact on ridership.



5 Proposed Passenger Rail Improvements and Investments

5.1 Introduction

This chapter describes ongoing, proposed, and potential initiatives to develop or expand passenger rail services in Indiana. Such services are categorized as follows:

- High-speed rail is generally defined as rail operating at speeds of 125 mph or above, with limited stops or no stops between cities and operating on a grade-separated, dedicated right-of-way.
- Intercity passenger rail is generally defined as rail serving multiple cities on routes with longer distances (typically 100 miles or more) and more frequent stops and operating on tracks that are part of the existing national railroad network at conventional passenger train speeds.
- Commuter rail is generally defined as rail primarily serving work commuters and local travelers between communities in an urban area or metropolitan region, on routes with frequent stops and typically operating on tracks that are part of the existing national railroad network.

No high-speed rail services are currently in operation or under active development in Indiana.

5.2 Hoosier State

The following section discusses Indiana's state-supported *Hoosier State* intercity passenger train, which ran between Indianapolis and Chicago until 2019, and describes INDOT's recent activities to reinstate service on the route.

5.2.1 Background

Until 2019, the *Hoosier State* provided intercity passenger rail service between Indianapolis and Chicago four days per week in each direction. On the three days per week when the *Hoosier State* did not operate, Amtrak's long-distance, overnight *Cardinal* train from New York, New York, provided service between Indianapolis and Chicago, operating on the same schedule with the same station stops as the *Hoosier State*. In combination, the two trains offered consistent, daily round-trip passenger rail service on a corridor roughly paralleling Interstate 65 between Indianapolis and Chicago, with intermediate station stops at Crawfordsville, Lafayette, Rensselaer, and Dyer.

Amtrak first introduced the *Hoosier State* in October 1980 as a daily service.¹⁴¹ At that time, the *Cardinal* was operating on an alternate routing between Chicago and Cincinnati through Muncie, bypassing Indianapolis. Amtrak shifted the routing of the *Cardinal* to serve Indianapolis in 1986, after

¹⁴¹ Amtrak, National Train Timetables Effective October 26, 1980. Retrieved from: <http://www.timetables.org/full.php?group=19801026&item=0041>



which the *Hoosier State's* service alternated between operating as a daily train on a different schedule as the *Cardinal* or operating on the same schedule as the *Cardinal* on days when the tri-weekly long-distance train did not run.¹⁴² Between 1999 and 2003, Amtrak replaced the *Hoosier State* with the *Kentucky Cardinal*, a daily service that ran from Chicago to Indianapolis, with the *Cardinal* three days per week or as a standalone train on alternate days, then continued south, first to Jeffersonville, Indiana, and then to Louisville Kentucky.¹⁴³ When the Kentucky service was discontinued, Amtrak reinstated the *Hoosier State*, operating four times per week from Indianapolis on alternate days from the *Cardinal*.

With the passage of the Passenger Rail Investment and Improvement Act (PRIIA) in 2008, Congress voted to end federal support for Amtrak intercity passenger trains operating on routes of 750 miles or less effective October 2013. As a result, Indiana and other states were required to provide the operating funding needed to sustain their regional passenger rail services, including the *Hoosier State*. The State of Indiana partnered with local governments along the train's 196-mile route to fund the *Hoosier State* service's operating and capital costs not covered by ticket revenue. The State of Indiana provided funding through a tax amnesty program of 2015 that reimbursed INDOT \$6 million to support the service during the two-year state budget ending June 2017. In addition, the communities of Crawfordsville, Lafayette, Rensselaer, Tippecanoe County, and West Lafayette together contributed approximately \$255,000 in FY2016 and \$350,000 in FY2017. The same communities agreed to continue support for the service for FY2018 and FY2019, and the Indiana legislature approved \$3 million per year of funding in the state's FY2018-2019 budget. It was the first time that the *Hoosier State* had a line item in the state's biennial budget.

INDOT was the first state agency post-PRIIA to contract intercity passenger rail services with an independent third-party vendor in addition to Amtrak. Between August 2015 and February 2017, Iowa Pacific Holdings provided train equipment and maintenance, on-board services, and marketing. Amtrak provided operating crews, worked with the host railroads, and provided ticketing and reservation services. On March 1, 2017, Amtrak resumed providing all services on the *Hoosier State*, with Amtrak-owned equipment that provided coach and Business Class seating, a café car, and free Wi-Fi.¹⁴⁴

However, the train's schedule continued to be tailored to the long-distance travel market of the *Cardinal*, rather than short-distance riders from Indiana. During its final year of operation, the northbound *Hoosier State* and *Cardinal* trains departed Indianapolis Union Station at 6:00 AM

¹⁴² Railway Age, Remembering the Hoosier State (1980-2019). By David Peter Alan. August 8, 2019. Retrieved from: <https://www.railwayage.com/passenger/remembering-the-hoosier-state-1980-2019/>

¹⁴³ Ibid.

¹⁴⁴ INDOT news release, Wi-Fi, Business Class and Café Car on the new Amtrak Hoosier State. February 27, 2017. Retrieved from: <https://content.govdelivery.com/accounts/INDOT/bulletins/1897853>



Eastern time and arrived in Chicago Union Station at 10:00 AM Central time, while southbound trains departed Chicago Union Station at 5:45 PM Central time and arrive in Indianapolis at 11:39 PM Eastern time. The schedule was designed to facilitate train connections in Chicago with other Amtrak services. Table 5-1 displays the Amtrak arrivals and departures at Chicago Union Station by route during spring 2019. Most Amtrak trains arrived before the southbound *Hoosier State* left Union Station, and most routes departed after the northbound *Hoosier State* arrived at Union Station. These connections were only valuable to Indiana *Hoosier State* passengers that were connecting to other Amtrak services.

According to the same survey, 4.4 million residents (or 65.7 percent of the statewide population) reside within 30 miles of an Amtrak station. This includes Indiana residents who are within 30 miles of an Amtrak station located outside the Indiana state border. These are shown in Table 1-3.

Table 5-1 – Amtrak Arrivals and Departures at Union Station, Chicago, 2019

Route	Arrives at Chicago	Leaves from Chicago
Hoosier State	10:00 AM	5:45 PM
Cardinal	10:00 AM	5:45 PM
Wolverine	10:32 AM, 2:50 PM, 10:40 PM	7:20 AM, 1:25 PM, 5:50 PM
Blue Water	11:45 AM	4:00 PM
Pere Marquette	9:08 AM	6:30 PM
Southwest Chief	2:50 PM	2:50 PM
California Zephyr	2:50 PM	2:00 PM
Capitol Limited	8:45 AM	6:40 PM
Empire Builder	3:55 PM	2:15 PM
Hiawatha	7 per day	8 per day
Texas Eagle	1:52 PM	1:45 PM
Lake Shore Limited	9:50 AM	9:30 PM
City of New Orleans	9:20 AM	8:05 PM
Saluki	1:00 PM	8:15 AM
Illini	9:45 PM	4:05 PM
Lincoln Service	10:00 AM, 12:20 PM, 8:40 PM, 11: 10 PM	7:00 AM, 9:25 AM, 5:15 PM, 7:00 PM
Carl Sandburg	9:51 PM	7:35 AM
Illinois Zephyr	10:33 AM	5:55 PM

Source: Amtrak 2019 train schedules downloaded from Amtrak website

Ridership on the *Hoosier State* had been declining each year since FY2016. As a result, less ticket revenue was available in each successive year to help INDOT and its community partners to recover the operating costs of the service. The declining patronage and a schedule geared to long-distance travelers were factors that contributed to the state’s decision to withdraw its support of the *Hoosier State* service in the FY2020-2021 budget. The *Hoosier State* made its final run on June 30, 2019, the last day of the state’s FY2019 fiscal year.



5.2.2 Intercity Passenger Rail Conceptual Infrastructure Plan

Since the end of Amtrak's *Hoosier State* service, INDOT has been taking steps to explore the feasibility of reinstating intercity passenger rail service better suited to the Indianapolis-Chicago travel market. In 2019, INDOT released an *Intercity Passenger Rail Conceptual Infrastructure Plan*¹⁴⁵ for the corridor, which identified potential track infrastructure improvements between Indianapolis and Munster, Indiana, to support daily corridor operations under two conceptual service plans. Improvements were identified to meet the following objectives determined in consultation with INDOT:

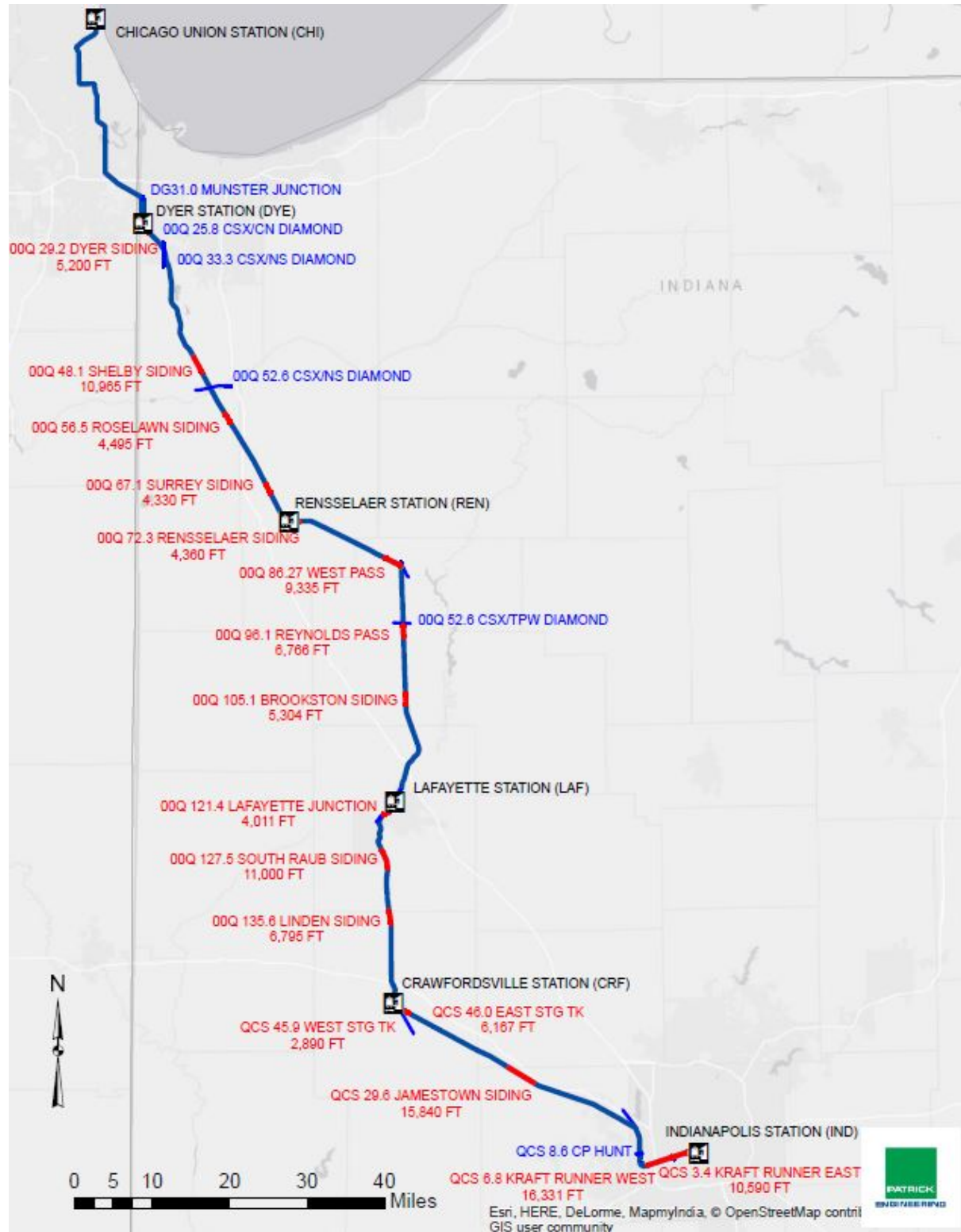
- Reduce travel time through localized speed improvements
- Increase service frequency to two round trips per day
- Increase the maximum authorized speed to 79 mph to reduce the total travel time

Conceptual passenger train schedules between Indianapolis and Chicago were developed for two operating scenarios — (1) two daily round trips at the existing maximum authorized track speed of 60 mph, and (2) two daily round trips with an increased maximum authorized speed of 79 mph — to identify where infrastructure improvements would be needed to support the enhanced rail service. Figure 5-1 shows the existing Hoosier State corridor, which is currently used by Amtrak's long-distance *Cardinal* train between New York, Indianapolis, and Chicago. The map also identifies the location and length of passing sidings currently in place on the line.

¹⁴⁵ INDOT, Intercity Passenger Rail Conceptual Infrastructure Plan, Hoosier State Passenger Rail. November 2019. Retrieved from: <https://www.in.gov/indot/files/HoosierStateConceptualInfrastructurePlan.pdf>



Figure 5-1 – Indianapolis to Chicago Corridor



Source: INDOT



The study estimated that the scheduled travel time between Indianapolis and Chicago could be reduced approximately 30 minutes if maximum track speeds were raised to 79 mph. The study also provided a conceptual design and cost estimate for a proposed new intercity passenger rail station along the corridor serving the Indianapolis International Airport.

Both conceptual service plans assume that Amtrak's long-distance *Cardinal* will continue to operate three days per week in each direction on its existing schedule, providing supplemental service to the proposed daily corridor train frequencies.

5.2.3 Hoosier State Passenger Survey and Stakeholder Feedback

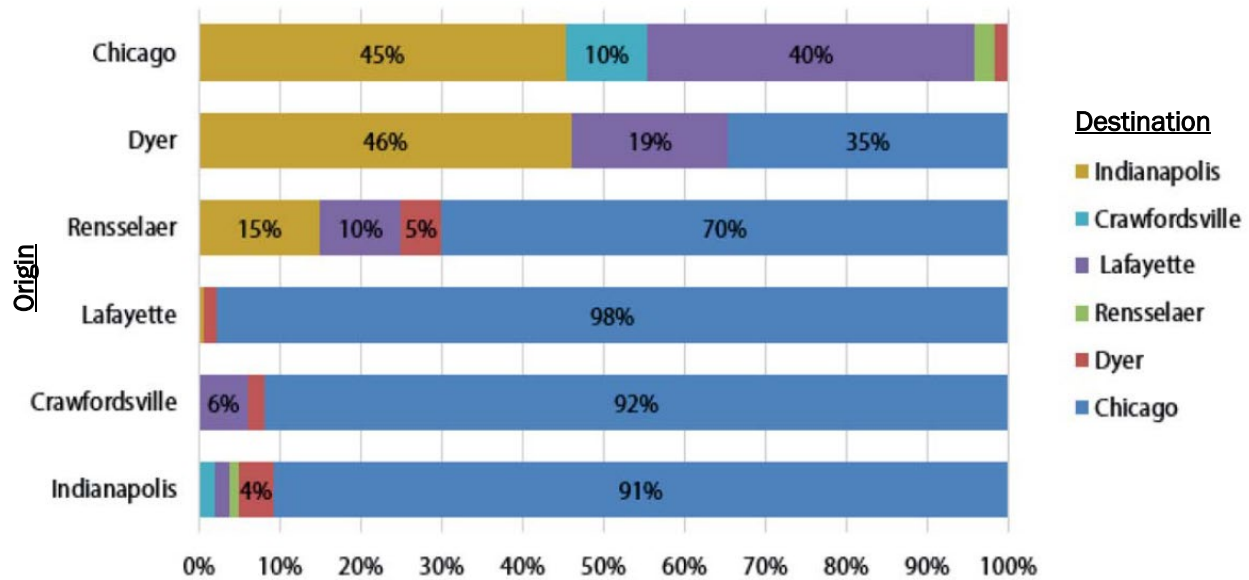
Researchers at the Joint Transportation Research Program at Purdue University conducted a survey of *Hoosier State* passengers in 2015 and 2016.¹⁴⁶ While the focus was a quantitative survey of passengers, researchers also collected anecdotal evidence on passenger preferences for service improvements. Among comments received were that the *Hoosier State* scheduling could be improved, and the service should be faster and more frequent.

Figure 5-2 displays the results from the Purdue University survey of *Hoosier State* passengers, which was taken over nine days in November and December 2016.¹⁴⁷ As shown, Chicago was the destination for over 90 percent of riders boarding in Lafayette, Crawfordsville, and Indianapolis. Indianapolis was the destination for 45 percent of passenger boarding in Chicago, followed by Lafayette, which was the destination for 40 percent of Chicago passengers. The survey also found that 59 percent of respondents resided in Indiana, while 20 percent resided in Illinois, and the rest were distributed across multiple states. Twenty-three percent of riders came from counties with no stations.

¹⁴⁶ Purdue University Joint Transportation Research Program, *SPR 4044: Evaluating Opportunities to Enhance Hoosier State Train Ridership through a Survey of Riders' Opinions and an Assessment of Access to the Line, Survey Analysis*. By Nadia Gkritza et. al., 2017.

¹⁴⁷ Ibid.

Figure 5-2 – Origin-Destination Pairs of Hoosier State Ridership (2016)



Source: Purdue University Joint Transportation Research Program

As part of the development process for this State Rail Plan, INDOT conducted several outreach activities with stakeholders and the general public, which included questions about the former *Hoosier State* service. INDOT conducted interviews with multiple passenger rail user groups in Indiana during October 2020. The interview subjects consisted of regional transportation planning organizations and metropolitan planning organizations representing some of the largest population centers in Indiana as well as passenger rail advocacy groups.

In discussions with interview subjects who rode the *Hoosier State* when it was in operations, each had similar impressions of the service: the times were inconvenient, the trip was slow, and the on-time performance was low. However, respondents also stated that despite those drawbacks, they noticed that the train still attracted riders, which suggested that a reinstated Indianapolis-Chicago rail passenger rail service with frequent schedules, competitive trip times, and high reliability had the potential to be more successfully capture a share of existing highway travelers. One respondent also noted that the train had demonstrated there was a demand for a premium service offering in the corridor, based upon the number of travelers that chose to purchase an extra-fare Business Class ticket.

When asked about what improvements they would most like to see if service were reinstated, respondents provided the following recommendations:

- Offer more departures (suggestions ranged from 2 round trips per day to at least 8 round trips per day).
- Offer a faster trip time between Indianapolis and Chicago that is at least equal to, and preferably faster than, driving. A 90-minute trip was recommended.



- Develop schedules with reasonable arrival and departure times that allow for day trips, and not arrivals in the middle of the night.
- Ensure that station services and facilities are attractive and inviting to passengers.

It is important to consider some of the implications of the proposed improvements.

Reduced travel times. Because the corridor uses rail lines owned by freight railroads, improving travel times would require negotiations with the host railroads. The most promising improvements do not necessarily improve maximum speeds, but rather resolve areas where train speeds are slow. Ideally, proposed improvements result in “win-win” solutions where both passenger and freight operations are improved. INDOT’s *Intercity Passenger Rail Conceptual Infrastructure Plan* includes recommendations for track infrastructure improvements to generate “win-win” solution.

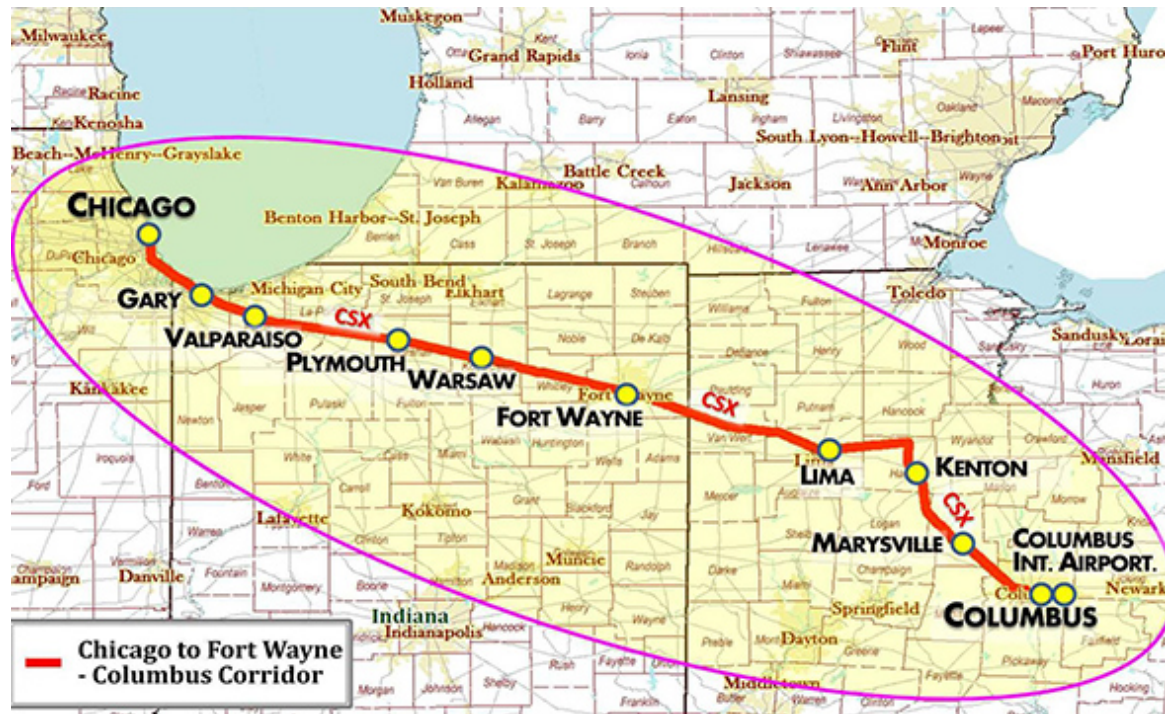
Increase in frequency. Each additional frequency in this corridor will necessitate additional associated operating expenses, since most operating costs are specific to each passenger train. For example, increasing frequency from one round trip to two round trips would double the costs of train crew labor, payments to host railroads, fuel and power, and car and locomotive maintenance and servicing. A second frequency also would require significant capital investments, as well as an agreement with host railroads to allow another frequency. The host railroad could first require payment for additional capacity so that the new passenger service does not interfere with existing freight service. INDOT’s *Intercity Passenger Rail Conceptual Infrastructure Plan* includes recommendations for track infrastructure improvements to accommodate two daily round trips. However, funding mechanisms will need to be identified and secured to finance both the upfront capital costs required to reinstate service with more frequencies, as well as ongoing operating costs to support the service once it begins.

INDOT will continue to explore opportunities for reinstating service in the state.

5.3 Northern Indiana Passenger Rail

The Northern Indiana Passenger Rail Association (NIPRA) has been leading a regional, multi-state effort to re-establish intercity passenger rail service between Chicago and Lima, OH, through Fort Wayne, part of a longer rail corridor that would extend from Chicago to Columbus, Ohio, as shown in Figure 5-3. The association has been working in conjunction with the Mid-Ohio Regional Planning Commission, which is leading the planning efforts to establish passenger rail service on the contiguous segment of the corridor between Lima and Columbus, and is studying the feasibility of an extension between Columbus and Pittsburgh. The mayors of nine municipalities along the route between Chicago and Columbus signed a Memorandum of Agreement to cooperate in developing the corridor.

Figure 5-3 – Chicago, IL to Columbus, OH- Rail Corridor



Source: Northern Indiana Passenger Rail Association

In January 2017, the City of Fort Wayne and the FRA announced the authorization of \$350,000 in funding to advance “Pre-NEPA” planning efforts for the Chicago-Fort Wayne-Columbus corridor. The work completed with this funding consisted of early planning activities that defined the Project’s purpose and need, evaluated route and service alternatives, identified potential infrastructure needs, and completed conceptual engineering and capital cost estimates. Decisions from these early planning activities will be applied toward the environmental review process, which is required under the National Environmental Policy Act (NEPA) for potential future federal funding. NIPRA anticipates requesting federal funds to complete NEPA requirements, including environmental documentation such as an Environmental Impact Statement (EIS), and support future Project implementation.¹⁴⁸

The purpose of the Project is to:

- Support economic competitiveness with reliable transportation alternatives
- Provide convenient travel access in station city centers
- Provide attractive travel times competitive with autos
- Maintain cost-effectiveness by maximizing use of existing rail infrastructure

¹⁴⁸ Northern Indiana Passenger Rail Association. Pre-NEPA webpage. Retrieved from: <http://niprarail.org/pre-nepa/>



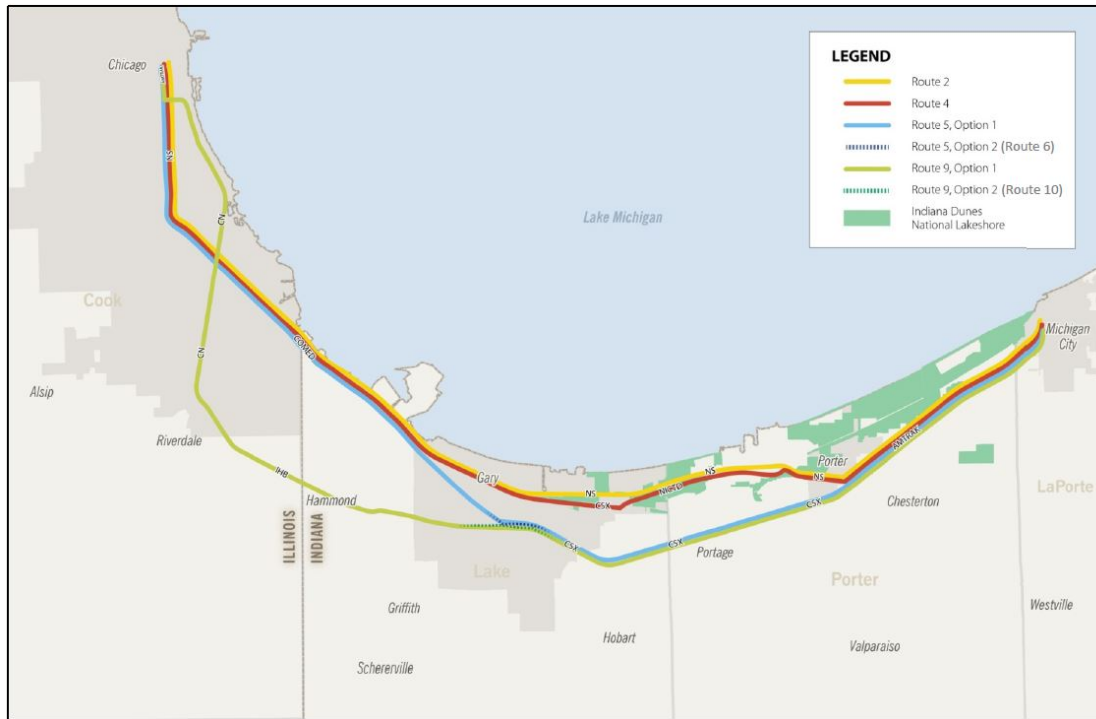
5.4 South of the Lake Alternatives and Michigan Service Improvements

As part of the planning conducted for the Midwest Regional Rail Initiative¹⁴⁹ FRA, Amtrak, and the states of Indiana, Michigan, and Illinois evaluated potential route options for a dedicated, double-track passenger rail corridor between Chicago and Porter, Indiana. The corridor is intended to provide a reliable, high-capacity route that could be used by state-supported regional passenger trains linking Chicago with Indianapolis, Cleveland, Cincinnati, and Michigan cities as well as Amtrak's long distance trains. Both active and abandoned rights of way were considered as part of the development and evaluation of potential route options.

FRA and the three states later conducted additional South of the Lake route evaluations in a Tier 1 Draft Environmental Impact Statement that was published in 2014 for the Chicago–Detroit/Pontiac Passenger Rail Corridor Program. This program, led by Michigan Department of Transportation (MDOT), was intended to identify improvements that would permit additional passenger train frequencies and operating speeds up to 110 miles per hour between Chicago and Detroit/Pontiac. Using a multi-step evaluation process developed by FRA and the Indiana, Michigan, and Illinois DOTs, FRA and MDOT identified four Reasonable Route Alternatives (or Build Alternatives) between Chicago Union Station and Porter for the dedicated passenger rail corridor. The four South of the Lake Reasonable Route Alternatives are shown in Figure 5-4.

¹⁴⁹ The Midwest Regional Rail Initiative was a consortium formed in 1996 with the purpose of improving and expanding passenger service in the Midwest United States. Indiana, along with Illinois, Iowa, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin, and the FRA are members. Primary INDOT participation in this consortium occurred between 1996 and 2007.

Figure 5-4 – South of the Lake Reasonable Route Alternatives



Source: Chicago – Detroit / Pontiac Passenger Rail Corridor Draft EIS

The four alternatives were planned to be carried forward for additional analysis and final selection of a Preferred Alternative in a Tier 1 Final Environmental Impact Statement. However, in 2018 FRA withdrew its Notice of Intent to prepare a Tier 1 EIS for the program, after deciding with MDOT to advance rail improvements between Chicago and Detroit/Pontiac on a project-by-project basis instead of a corridor-level basis.¹⁵⁰ The South of the Lake route alternative evaluations and service development planning may be used for future environmental review work.

Until a new corridor is constructed, intercity passenger trains from Michigan and long-distance Amtrak trains from the East Coast will continue to use the existing Norfolk Southern rail line between Porter and Chicago. In 2017, INDOT completed the \$71.4 million Indiana Gateway Project, a group of eight capacity expansion and track upgrade projects to improve passenger and NS freight train operations and reliability on the existing route. Seven of the projects were located on the NS line and the eighth project was located on Amtrak’s Michigan Line east of Porter.

As noted by Amtrak’s Chicago Gateway Blue Ribbon Panel (see Section 5.5), when Federal funding was committed for INDOT’s Indiana Gateway project and the CREATE Englewood Flyover project in

¹⁵⁰ MDOT, Chicago - Detroit/Pontiac Passenger Rail Corridor Program website: https://www.michigan.gov/mdot/0,4616,7-151-9621_11058_74869---,00.html



Chicago, Amtrak, NS, and the states of Indiana and Illinois also signed right-of-way development agreements that give Amtrak the right to construct dedicated passenger/high speed rail tracks on NS right-of-way and property between Porter and 21st Street in Chicago. To date, however, no funding has been made available for the construction of dedicated passenger tracks.

MDOT, meanwhile has completed improvements on the corridor between Porter and Kalamazoo, MI. MDOT's current efforts are focused on improving the 135-mile segment between Kalamazoo and Dearborn, including track upgrades to increase speeds to 110 miles per hour where feasible.

5.5 Chicago Improvements

Indiana's existing passenger rail network relies heavily on movements to and from Chicago. Chicago serves as both the region's passenger-rail hub and the nation's premier freight-rail hub. Currently, about 1,300 trains pass through the Chicago region daily—500 freight and nearly 800 passenger trains—each traversing rail infrastructure designed for lower volumes of traffic than are being carried today. The collective traffic volumes of passenger and freight rail movements often result in congestion that reduces performance and reliability. Several initiatives seek to address Chicago rail network issues.

5.5.1 Chicago Regional Environmental and Transportation Efficiency Program (CREATE)

CREATE is a partnership between the State of Illinois, City of Chicago, Metra, Amtrak, the Association of American Railroads, and U.S. DOT that seeks to alleviate rail congestion and associated highway congestion with track capacity improvements and grade-separation structures throughout the Chicago area. CREATE was formed on June 16, 2003, by former Chicago Mayor Richard M. Daley, who recognized the Chicago region's rail capacity needs and convened appropriate stakeholders to advocate for necessary improvements. As of December 2020, 31 of 70 projects had been completed, representing an investment of \$1.6 billion in the estimated \$4.6 billion initiative.¹⁵¹ The following types of projects are included in this initiative:

- Road/rail grade separations
- Rail/rail grade separations
- Capacity improvements and bottleneck reductions
- Viaduct improvements
- Grade crossing safety enhancements
- Integrated dispatch system

Among the projects, 19 directly benefit Amtrak intercity passenger rail services and two completed projects benefit NICTD's South Shore Line commuter rail service. One of the highest-profile projects

¹⁵¹ CREATE Program Status Update – January 2021. Retrieved from: <https://www.createprogram.org/resources>



that benefited Indiana rail transportation was the 2014 completion of a \$142 million rail flyover in Englewood, removing a bottleneck to passenger and freight rail trains serving Indiana. The project eliminated the at-grade crossing of Metra's Rock Island District commuter line and a key Norfolk Southern freight and intermodal route from the East Coast to Chicago, which is also used by all Amtrak trains from Indiana serving Chicago except for the *Cardinal*. The project alleviated Amtrak's most severe Midwest chokepoint. CREATE projects such as the Englewood Flyover are intended to decongest existing operations as well as accommodate projected future growth in passenger and freight traffic.

5.5.2 Amtrak Chicago Gateway Blue Ribbon Panel

Amtrak's Chicago Gateway Blue Ribbon Panel built on CREATE project by prioritizing infrastructure improvements and advocating for those improvements. Created by Amtrak in October 2014, the Panel was comprised of government and private-sector professionals with experience in rail policy issues. Following outreach and collaboration with nearly 100 stakeholders and experts, the Panel released a set of recommendations and action items for railroad and government stakeholders in October 2015 to address rail network congestion in the Chicago area that was adversely impacting existing operations as well as the network's ability to accommodate future demand. Freight rail volumes in the Chicago region are projected to increase 62% by 2040, as noted in the report containing the panel's recommendations, but only if investments are made to allow the Chicago rail network to handle it and prevent passenger and freight rail gridlock. To avoid this outcome, the Chicago Gateway Panel made the following recommendations:

1. Establish a mechanism to carry out real time operational coordination among Chicago's railroads, including coordinated dispatching
2. Continue efforts undertaken by Amtrak and freight railroads to improve operational performance within the Chicago terminal
3. Provide adequate and sustained public funding for vital projects that will produce significant passenger rail and other public benefits
4. Prioritize completion of the CREATE 75th Street Corridor and Grand Crossing projects
5. Fund additional investments on the Porter, Indiana to Chicago Corridor
6. Pursue RRIF loan program reforms to encourage innovative financing approaches
7. Establish uniform environmental review requirements for rail projects that are consistent among transportation modes, coordinated among agencies, and prioritized for projects of national importance

The centerpiece of the Panel's recommendation for additional investment on the Porter, IN to Chicago corridor is the construction of the dedicated passenger-only right-of-way known as the "South-of-the-Lake" line, in order to achieve speeds of up to 110 mph (see Section 5.4). This would better accommodate the approximately 100 trains that travel the corridor each day. Through right-of-way agreements made when federal funding was committed to the Englewood Flyover and Indiana Gateway Projects, Amtrak has rights to construct dedicated passenger tracks within the NS



right-of-way. This capacity expansion would allow Michigan's Amtrak services to expand beyond their existing frequencies and support the implementation of faster and more frequent services east of Chicago.¹⁵²

5.5.3 Chicago Union Station Master Plan

To accommodate future growth in intercity passenger rail and commuter rail traffic at Chicago Union Station, the Chicago Department of Transportation developed the Chicago Union Station Master Plan in 2012, in partnership with Amtrak, Metra, and the Regional Transportation Authority (RTA). The plan includes a set of recommended projects that would increase station capacity and benefit rail passengers by expanding station entrances, widening existing station platforms, constructing new station tracks and platforms using repurposed spaces at track level such including former mail and baggage platforms, building a connection to the CTA subway, and upgrading tracks, signals and interlockings to improve train operations. Although Amtrak and the City of Chicago have advanced some of the plan's short-term recommendations, in particular improvements to make station entrances compliant with the Americans with Disabilities Act, funding for the projected \$500 million full Phase 1 buildout has not yet been secured.¹⁵³ In 2019, Amtrak signed an agreement with a commercial real estate developer to convert a parking garage south of Union Station into an office and retail complex. Construction on the 700-foot BMO Tower, which will occupy the site, began in late 2020.¹⁵⁴

5.6 Midwest Regional Rail Planning Study

The FRA is leading the *Midwest Regional Rail Planning Study*, a multi-state planning effort to develop a comprehensive vision and governance model for an integrated regional rail network to advance passenger rail planning, procurement, and operations in the Midwest. The study builds on current rail planning efforts within the states of Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. These 12 states along with the Midwest Interstate Passenger Rail Commission (MIPRC) comprise the study's lead stakeholders and provide intensive feedback and guidance. The study builds upon previous work by the Midwest Regional Rail Initiative¹⁵⁵ and is one of several intercity passenger rail regional plans that will comprise the FRA's

¹⁵² Amtrak, Report of the Amtrak Chicago Gateway Blue Ribbon Panel. October 2015. Retrieved from: <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/businessplanning/Chicago-Gateway-Amtrak-Blue-Ribbon-Panel-Final-Report.pdf>

¹⁵³ Regional Transportation Authority, Chicago 2018-2023 Regional Transit Strategic Plan. Retrieved from: https://www.rtachicago.org/sites/default/files/documents/strategicprograms/strategicplan/IIT_2018-23_Final/InvestInTransit_18-23_printfriend.pdf

¹⁵⁴ Riverside Investment and Development website. BMO Tower officially breaks ground in Chicago. Retrieved from: <https://riversideid.com/news/bmo-tower-officially-breaks-ground-in-chicago>

¹⁵⁵ The Midwest Regional Rail Initiative was a consortium formed in 1996 with the purpose of improving and expanding passenger service in the Midwest United States. Indiana, along with Illinois, Iowa, Michigan, Minnesota,



National Rail Plan as required by PRIIA. Other FRA regional passenger rail plans include the *Southwest Multi-State Rail Planning Study* completed in 2014, and the *Southeast Regional Rail Planning Study* completed in 2020.

The goal of the *Midwest Regional Rail Planning Study* is to produce a framework for expanding and improving the intercity passenger rail network in the Midwest, including a prioritization of corridors and investment projects, a governance structure, and a funding strategy. The end result of the study will be a regional intercity passenger rail plan for the Midwest. Specific objectives to achieve the study's overall purpose include the following:

- Collaborate with stakeholders to identify a long-term vision for high-performance rail service within the region
- Define the priorities, studies, and investments that are needed to advance passenger rail improvements across the multi-state network
- Illustrate the intermodal linkages to create an integrated intercity transportation system to adequately accommodate travelers from origins and destinations throughout the region
- Identify institutional and financial arrangements as well as appropriate planning and phasing needed to implement the plan

To fulfill these objectives, the project includes several key components. The project will define existing passenger rail network conditions and assess the existing travel market. The FRA intends to develop network and service plan concepts with a prioritization of corridors and projects within each corridor. The study established three "service tiers" to define the types of service frequencies, service characteristics, and infrastructure levels proposed for each corridor. The service tiers can be summarized as follows:

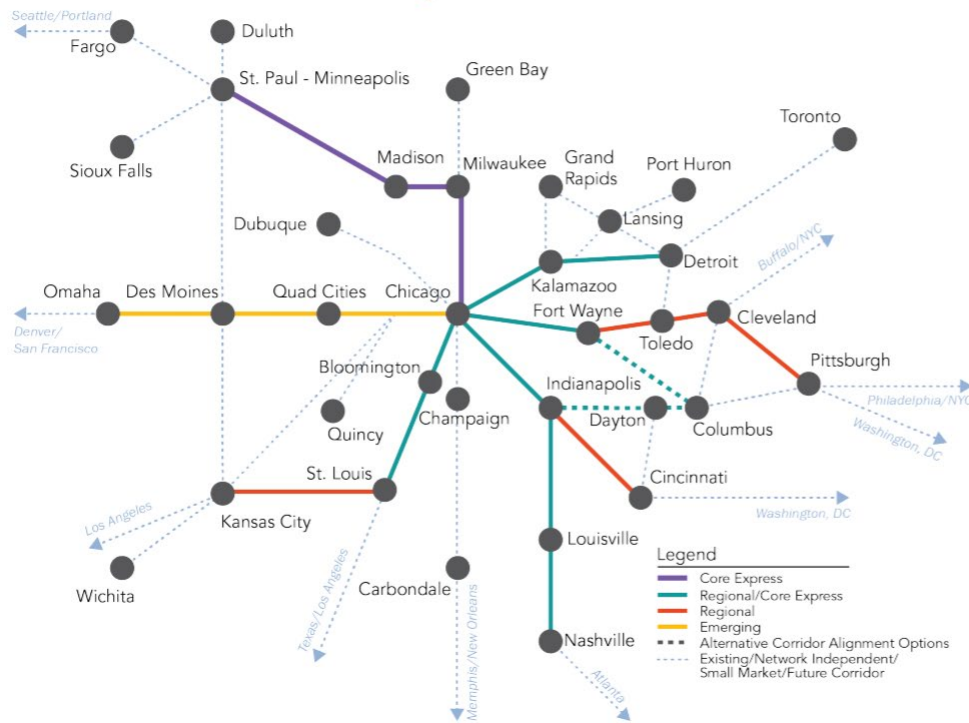
- **Core Express:** Core express service would operate on corridors serving major metropolitan centers. Trains would operate under electric power on dedicated tracks except in terminal areas at speeds of 125 mph or higher, with frequent service provided.
- **Regional:** Regional services would operate on corridors connecting mid-size urban areas with each other or with larger metropolitan areas. Trains could operate under electric or diesel power, using both dedicated and shared tracks, at speeds between 90 and 125 mph, with frequent service provided.
- **Emerging:** Emerging services would operate on corridors connecting mid-sized and smaller urban areas with each other or with larger metropolitan areas. Trains would operate on shared tracks at speeds of up to 90 mph.

Missouri, Nebraska, Ohio, and Wisconsin, and the FRA are members. Primary INDOT participation in this consortium occurred between 1996 and 2007.

The study's initial set of corridors and proposed service levels is shown in Figure 5-5. The study does not identify specific routes or alignments for each corridor, however. Project prioritization will take into account constraints of the service plans. Estimated costs, benefits, and funding of the network plan will drive future investments, environmental studies, and planning activities.

Figure 5-5 – Midwest Regional Rail Planning Study Proposed Draft Network

Proposed Draft Network, Phase II



Source: Federal Railroad Administration

The study began in 2016 with initial efforts to evaluate potential markets, corridors, ridership, and costs as well as governance and/or institutional options that would ultimately feed into the creation of the Midwest Regional Rail Plan. The study utilizes the FRA's CONceptual NETwork Connections Tool (CONNECT), which serves as the analytical foundation for FRA-led regional passenger rail planning studies and is expected to be completed in fall 2020. The Midwest Regional Rail Planning Study is part of other national efforts exploring the potential for a high-performance passenger rail network including the Southwest Multi-State Rail Planning Study completed in 2014, and the Southeast Regional Rail Planning Study to be completed in 2020.



5.7 Amtrak Five-Year Strategic Plans

Each year, Amtrak releases a 5-year strategic plan to satisfy requirements under Section 11203(b) of the Fixing America's Surface Transportation (FAST). In May 2021, Amtrak released its Fiscal Year (FY) 2021 "Five Year Line Plans," which outline strategic 5-year initiatives for each service line and asset line between FY 2021 and FY 2026.¹⁵⁶ These plans do not identify initiatives for individual trains such as the Cardinal but focus on overall improvements that benefit particular types of services, including long-distance trains and state-supported regional trains, regardless of location.

Amtrak's 5-year plans do not identify the establishment of new long-distance routes as a strategy or initiative. They do, however, support the introduction and expansion of regional, state-supported passenger rail corridors of up to 750 miles in length.

5.7.1 State Supported Service Improvements

Amtrak's five-year plan for the State Supported Service Line lists the following overall strategies:

- Advance three major short-term goals for FY 2021:
 - Secure continued emergency federal funding for Amtrak and State Partners
 - Avoid any permanent loss of service
 - Service restoration: Bring back the right level of service at the right time
- Strengthen relationships with existing State Partners.
- Increase ridership and revenue by developing new corridors.
- Pursue new fleet acquisition and support fleet deployment.
- Establish capital partnerships with current and potential partners to leverage capital funds to make investments in fleet, facilities, and infrastructure.
- Maximize operational efficiencies to effectively manage costs.
- Strengthen relationships and communication with relevant Congressional staff and committees.

In its strategic plan, Amtrak identified the following initiatives for FY 2021 – FY 2026 to support the State Supported Service Line strategies listed above:

- **Fleet Acquisition—Intercity Trainset:** Replace the Amfleet I cars that comprise the largest portion of the State Supported Service equipment fleet with an updated modern train experience for today's customers. The procurement of equipment will replace the Amfleet I cars, as well as provide a new fleet for the Amtrak Cascades.

¹⁵⁶Amtrak, Five-Year Service and Asset Line Plans Fiscal Years 2021-2026. Retrieved from: <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/businessplanning/Amtrak-Service-Line-Asset-Line-Plans-FY21-26.pdf>



- **Route and Frequency Expansions:** Work together with State Partners to determine service levels and expansion plans for the routes they support.
- **Obtain Discretionary Grants:** Work closely with State Partners to support grant applications for funding from U.S. Department of Transportation discretionary capital grant programs, which provide an important source of funding for Amtrak and State partners seeking capital for infrastructure projects, as well as from state discretionary capital grant programs open to local public transportation agencies and municipalities.
- **Improve the Section 209 Cost-Sharing Policy:** Work collaboratively with stakeholders on improvements to the Section 209 policy for cost-sharing for State Supported services. Section 209 of PRIIA established the basis for a mechanism to allocate and share the costs for Amtrak State Supported services between Amtrak and its partners.

5.7.2 Long Distance Service Improvements

Amtrak's five-year plan for the Long Distance Service Line, which includes the *Cardinal*, *Capitol Limited*, and *Lake Shore Limited*, lists the following overall strategies:

- Sustain the company by restoring full service to all long-distance routes in 2021, after reducing frequencies in 2020 to reflect greatly reduced demand resulting from the COVID-19 pandemic and to minimize increases in operating losses due to sharply reduced revenues.
- Gain new customers through informational campaigns and technology advancements that emphasize the benefits of private sleeping compartments as an accommodation that offers customer space, privacy, and comfort, even for shorter trips and daytime use; improve features on the Amtrak.com website and Amtrak app to enhance fare finding, search results, customer awareness of private rooms and other amenities, ease of booking complex travel itineraries, checkout processes, and other features for users; present seven-day calendars of available fares for app and website users planning trips, to improve the way in which long-distance customers can find available travel dates on trains operating less than daily.
- Build for the future by reimagining how traditional onboard dining is provided to both private room and coach customers, introduce new Viewliner II sleeping cars on routes along the east coast, and launch a refurbishment program for Superliner and Viewliner I car interiors that includes providing new cushions and upholstery coverings, carpets, curtains, and light coverings, along with deep cleanings of coaches, dining cars, and sleeping cars.

In its strategic plan, Amtrak identified the following initiatives for FY 2021 – FY 2026 to support the Long Distance Service Line strategies listed above:

- **Fleet Planning and Acquisition:** Acquire new locomotives and passenger cars to:
 - Offer modernized equipment and amenities to match updated service models and improve customer satisfaction
 - Redesign train consists to match passenger demand, create operating efficiencies, and reduce capital needs
 - Reduce car and locomotive maintenance and capital costs



- Reduce engine and car related mechanical delays to improve on-time performance
 - Reduce fuel consumption and greenhouse gas emissions
- **Address Reliability and On-Time Performance:** Continue to use a data-driven approach and work with host railroads to understand the causes of host railroad and Amtrak responsible delays, opportunities to mitigate them, and the actions required to improve OTP. Amtrak is also proposing enhanced authority to enforce existing laws giving Amtrak trains preference over freight transportation.
- **Introduce an Experiential Service Model:** Develop a strategy for trains that operate over two nights to establish a more contemporary model and attract an expanded ridership base. The strategy includes redesigning sleeper cars, reconfiguring seating in dining and lounge areas, updating menus, and providing specialized staff training.
- **New Food Service Model:** Continue to develop and enhance meal offerings that deliver customer satisfaction at reduced operating costs, such as expanding the new food service delivery program introduced for customers in private rooms and standardizing café menus, and complete the roll out of a food and beverage point-of-sale system with improved features.

5.7.3 Equipment Acquisition and Beech Grove Shop

Amtrak's 5-year plan also outlines initiatives to purchase new cars and locomotives and overhaul additional equipment. The plan notes that in early FY 2020, Amtrak had approximately 230 road diesel locomotives owned or leased, 66 electric locomotives in regular service and 15 more in reserve, 1,413 railcars, and 20 high-speed trainsets. In addition, Amtrak operates in regular service equipment jointly owned with its state partners, including Talgo trainsets in the Pacific Northwest and 49 Alstom Surfliner railcars, as well as 202 locomotives and railcars solely owned by state partners. The plan notes that the average age of railcars that Amtrak owns or leases is close to 34 years old, and the average locomotive or trainset is more than 20 years old.

Amtrak placed an \$850 million order with Siemens in December 2018 for 75 new diesel locomotives with the model designation ALC-42 (for "Amtrak Long-distance Charger 4,200-horsepower").¹⁵⁷ The Amtrak-owned Chargers will be similar to other Siemens-built passenger locomotives acquired by state and commuter agencies for use on state-supported intercity passenger services or commuter trains. The ALC-42 locomotive model will have a larger fuel tank and increased power-generating capabilities to supply heat, light, and ventilation to passenger cars in order to better accommodate the characteristics of long-distance service and equipment. Built in California, the ALC-42

¹⁵⁷ Amtrak news release, Amtrak Prepares for New Diesel Locomotive Fleet. August 5, 2020. Retrieved from: <https://media.amtrak.com/2020/08/amtrak-prepares-for-new-diesel-locomotive-fleet/>



locomotives will replace P40 and P42 model passenger locomotives delivered in the 1990s. The new locomotives will feature cleaner Tier 4 emissions technologies that will reduce nitrogen oxide by more than 89 percent and particulate matter by 95 percent and also reduce fuel consumption. Amtrak projects the entire fleet to be in service by 2024. Under the order, Amtrak has the option to purchase additional locomotives.

Amtrak also is receiving the final cars in a 130-car order of new single-level equipment that is being deployed on long-distance trains in the East Coast, including trains from New York serving Indiana. The order for new Viewliner II cars, built in New York state by CAF USA, consists of 70 baggage cars, 10 baggage-dorm cars, 25 food-service cars, and 25 sleeping cars.

In 2021, Indiana riders on the *Wolverine Service* trains to Michigan can expect to have their first opportunities to ride in a new fleet of intercity passenger cars jointly purchased by the states of Michigan, Illinois, Missouri, and Wisconsin for use on state-supported Amtrak regional trains to and from Chicago. The new 97-car single-level "Venture" fleet, built by Siemens in California, includes 34 cars assembled as 17 two-car married pairs consisting of one coach and one Business class/coach car, 34 cars assembled as 17 two-car married pairs consisting of one coach and one café/coach combination car, and 26 individual coach cars, along with three cab-coach cars purchased by Wisconsin for the Chicago-Milwaukee *Hiawatha Service* trains. The procurement of new passenger cars follows an order for 33 Siemens-built Charger locomotives, which were purchased by Illinois, Michigan, Missouri, and Wisconsin and delivered between 2017 and 2020 for use on state-supported corridor trains in the Midwest.¹⁵⁸

Indiana plays a critical role in keeping Amtrak's locomotives and passenger cars in service. Amtrak's Beech Grove Shop, southeast of Indianapolis, is the passenger railroad's primary heavy maintenance facility for all equipment that operates predominantly outside of the Northeast (see Figure 5-6). According to Amtrak's Indiana FY 2019 Fact Sheet, the 484 employees at Beech Grove rebuild and overhaul Amtrak's bi-level Superliner, and single-level Viewliner, Surfliner, and Horizon car fleets. Beech Grove shop forces conduct preventative maintenance on P32 and P42 locomotives for use across the Amtrak system. In FY 2019, Amtrak performed heavy overhaul, periodic maintenance, repainting, and other servicing on 113 bi-level coaches, sleepers and food service cars, 58 single level coaches, food cars, sleepers and baggage cars, and 30 locomotives. Beech Grove also supplies components to other Amtrak servicing and maintenance facilities with components such as couplers, overhauled air conditioners, overhauled air brake valves, and about 300 other specialized parts that cannot be purchased off the shelf from other vendors.

¹⁵⁸ Progressive Railroading, Rail News: Siemens' Charger locomotives begin rolling in California, Illinois. April 24, 2017. Retrieved from: <https://www.progressiverailroading.com/mechanical/article/Siemens-Charger-locomotives-begin-rolling-in-California-Illinois--51435>

Figure 5-6 – Amtrak’s Beech Grove heavy maintenance facility southeast of Indianapolis



Source: biglittlerr.blogspot.com

Less than a mile from Beech Grove, Amtrak operates its Indianapolis Distribution Center (IDC). The IDC is the largest material and supply warehouse on the Amtrak system, featuring 180,000 square feet of interior storage space, 16,000 stock-keeping-units (SKUs), and modern electronic, real-time inventory systems. The IDC’s 30 full- and part-time employees distribute supplies and equipment to 31 Amtrak terminals, including items as varied as locomotive parts, toilet paper, and coach seats.

5.8 Amtrak COVID-Related Service Restoration Plans

As passenger train ridership declined as a result of the COVID-19 pandemic, Amtrak reduced the operation of its trains throughout 2020. By the time the company released its preliminary fiscal year 2020 financial results on November 23, 2020, systemwide ridership and revenue on Amtrak was approximately 25% of pre-COVID levels and was projected to increase to about 37% of pre-COVID levels by the end of fiscal year 2021.¹⁵⁹

Amtrak took additional measures throughout the year to ensure passenger health and safety on board trains, including limiting reservations to less than half of a train’s capacity in order to allow for social distancing. The Coronavirus Aid, Relief, and Economic Security (CARES) Act, which was signed

¹⁵⁹ Amtrak news release, Amtrak Fiscal Year 2020: Prioritized Customer Safety, Advanced Infrastructure and Fast - Tracked Technology. November 23, 2020. Retrieved from: https://media.amtrak.com/2020/11/amtrak-fiscal-year-2020-prioritized-customer-safety-advanced-infrastructure-and-fast-tracked-technology/#_ftn1



into law on March 27, 2020, had included \$1.04 billion for Amtrak to supplement revenue shortfalls from reduced ridership and continue its operations in the short term. When the funding expired at the end of the federal fiscal year, Amtrak began reducing long-distance train services. Amtrak and its state partners had already reduced the frequency of state-supported trains to cut expenses incurred by those services. The Coronavirus Response and Relief Supplemental Appropriations Act (CRRSA Act) of 2021 provided an additional \$1 billion for Amtrak to continue services. Amtrak instituted the following changes to passenger rail services in Indiana during 2020:

- Service on Michigan’s state-supported *Pere Marquette* (Chicago-Grand Rapids) was suspended effective March 19, 2020, but was restored on June 29 and 30, 2020
- The three daily round trips on Michigan’s *Wolverine Service* (Chicago-Detroit-Pontiac) were reduced to one daily round trip effective March 21, 2020
- Service on the long-distance *Capitol Limited* (Chicago-Washington) was reduced from daily to three days per week in each direction beginning the week of October 5, 2020
- Service on the long-distance *Lake Shore Limited* (Chicago-New York/Boston) was reduced from daily to three days per week in each direction beginning the week of October 12, 2020
- No changes were made to the triweekly *Cardinal* (Chicago-Indianapolis-New York) or the daily *Blue Water* (Chicago-Port Huron) services

The American Rescue Plan Act of 2021, which was passed by Congress on March 10, 2021, and signed into law by President Joe Biden on March 11, 2021, included funding to enable Amtrak to fully restore the service of long-distance trains whose frequencies had been reduced in 2020.¹⁶⁰ The law required Amtrak to recall furloughed employees and restore long-distance train service within 90 days of enactment. In accordance with new legislation, Amtrak announced on March 10 its plan to recall more than 1,200 furloughed employees and restore its long-distance services to pre-COVID levels through the remainder of FY 2021 and into FY 2022.¹⁶¹ Amtrak long-distance trains serving Indiana resumed daily service in the second of three restoration phases with the following implementation dates:

- Phase 1: May 24, 2021: *California Zephyr*, *Coast Starlight*, *Empire Builder*, and *Texas Eagle*
- Phase 2: May 31, 2021: *Capitol Limited*, *City of New Orleans*, *Lake Shore Limited*, and *Southwest Chief*
- Phase 3: June 7, 2021: *Crescent*, *Palmetto*, *Silver Meteor*, and *Silver Star*

¹⁶⁰ H.R.1319 - American Rescue Plan Act of 2021, 117th Congress (2021-2022). Retrieved from: <https://www.congress.gov/bill/117th-congress/house-bill/1319/actions>

¹⁶¹ Amtrak news release, With Increased Demand and Congressional Funding, Amtrak Restores 12 Long Distance Routes to Daily Service. March 10, 2021. Retrieved from: https://media.amtrak.com/2021/03/with-increased-demand-and-congressional-funding-amtrak-restores-12-long-distance-routes-to-daily-service/?fbclid=IwAR1puCtLNnZUhnVllm1brwGc_oi3z8Bhnbvqen1FEEdbcfKEIHkg-dkzhU



The *Cardinal* serving Indianapolis will remain tri-weekly, as it had been before and throughout the pandemic. The \$1.7 billion in funding that was provided to Amtrak in the American Rescue Plan Act not only included \$166 million to restore the long-distance services but also included \$285 million for Amtrak to offset amounts required to be paid by states for the operation of state-supported routes and for capital payments made to Amtrak by states and commuter rail transportation providers.¹⁶²

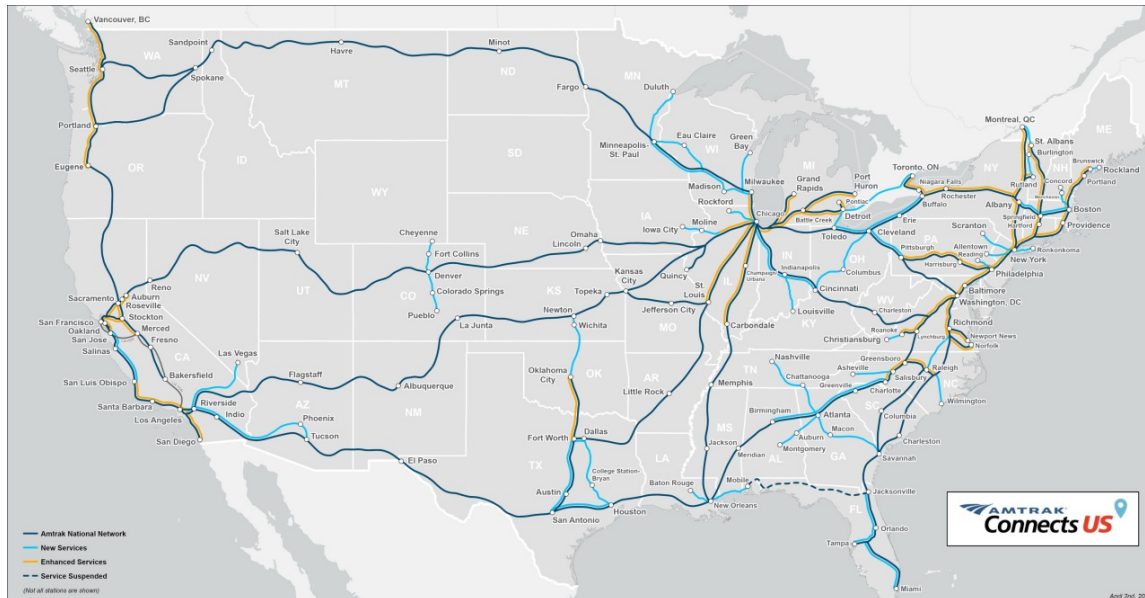
5.9 Amtrak Connects US

On March 31, 2021, Amtrak released a vision plan, called “Amtrak Connects US,” that identified locations where new corridors and enhanced service on existing routes could be developed in conjunction with state partners by 2035.¹⁶³ The vision is centered on developing and enhancing intercity passenger rail corridors several hundred miles long located within or between regions of the United States that are expected to experience significant population growth. Figure 5-7 shows the candidate routes targeted for potential improvement or an introduction of service under Amtrak’s plan, including corridors serving Indiana.

¹⁶² American Public Transportation Association, Senate Passes American Rescue Plan Act, Amended Bill Returns to House of Representatives. March 6, 2021. Retrieved from: <https://www.apta.com/advocacy-legislation-policy/legislative-updates-alerts/updates/senate-passes-american-rescue-plan-act-amended-bill-returns-to-house-of-representatives/>

¹⁶³ [Amtrak Connects Us - Amtrak Media](https://media.amtrak.com/amtrak-connects-us/). Retrieved from: <https://media.amtrak.com/amtrak-connects-us/>

Figure 5-7 – Amtrak Connects US Plan



Source: Amtrak

5.10 Northern Indiana Commuter Transportation District Improvements

NICTD has a number of initiatives aimed at maintaining infrastructure and cars in a state of good repair and improving and expanding its South Shore Line commuter rail service.

5.10.1 Six-Year Capital Plan

As shown in Table 5-2, NICTD’s 2020-2025 six-year capital plan includes \$1.3 billion in investment in the system to advance a state of good repair for the system’s assets, install PTC, acquire rolling stock, expand capacity, construct new track capacity to increase service to Michigan City, and construct the new West Lake Corridor from Hammond to Dyer, Indiana.



Table 5-2 – Summary of NICTD 2020 – 2025 Capital Plan

Project	2020	2021	2022	2023	2024	2025	Total
West Lake Corridor	\$82,057,666	\$247,157,685	\$271,772,118	\$107,045,845	\$10,293,419	\$10,293,419	\$728,620,152
Double Track Gary to Michigan City	\$28,121,068	\$100,625,675	\$220,235,945	\$39,620,466	\$0	\$0	\$388,603,154
South Bend Realignment	\$5,000,000	\$15,000,000	\$10,000,000	\$0	\$0	\$0	\$30,000,000
Section 5307 Maintenance Overhaul	\$6,985,923	\$6,985,923	\$6,985,923	\$6,985,923	\$6,985,923	\$6,985,923	\$41,915,538
Rolling Stock Acquisition	\$8,000,000	\$8,000,000	\$8,000,000	\$8,000,000	\$8,000,000	\$8,000,000	\$48,000,000
State of Good Repair Projects	\$17,769,393	\$17,769,393	\$17,769,393	\$17,769,393	\$17,769,393	\$17,769,393	\$106,616,358
Total	\$147,934,050	\$395,538,676	\$534,763,379	\$179,421,627	\$43,048,735	\$43,048,735	\$1,343,755,202

Source: Northern Indiana Commuter Transportation District

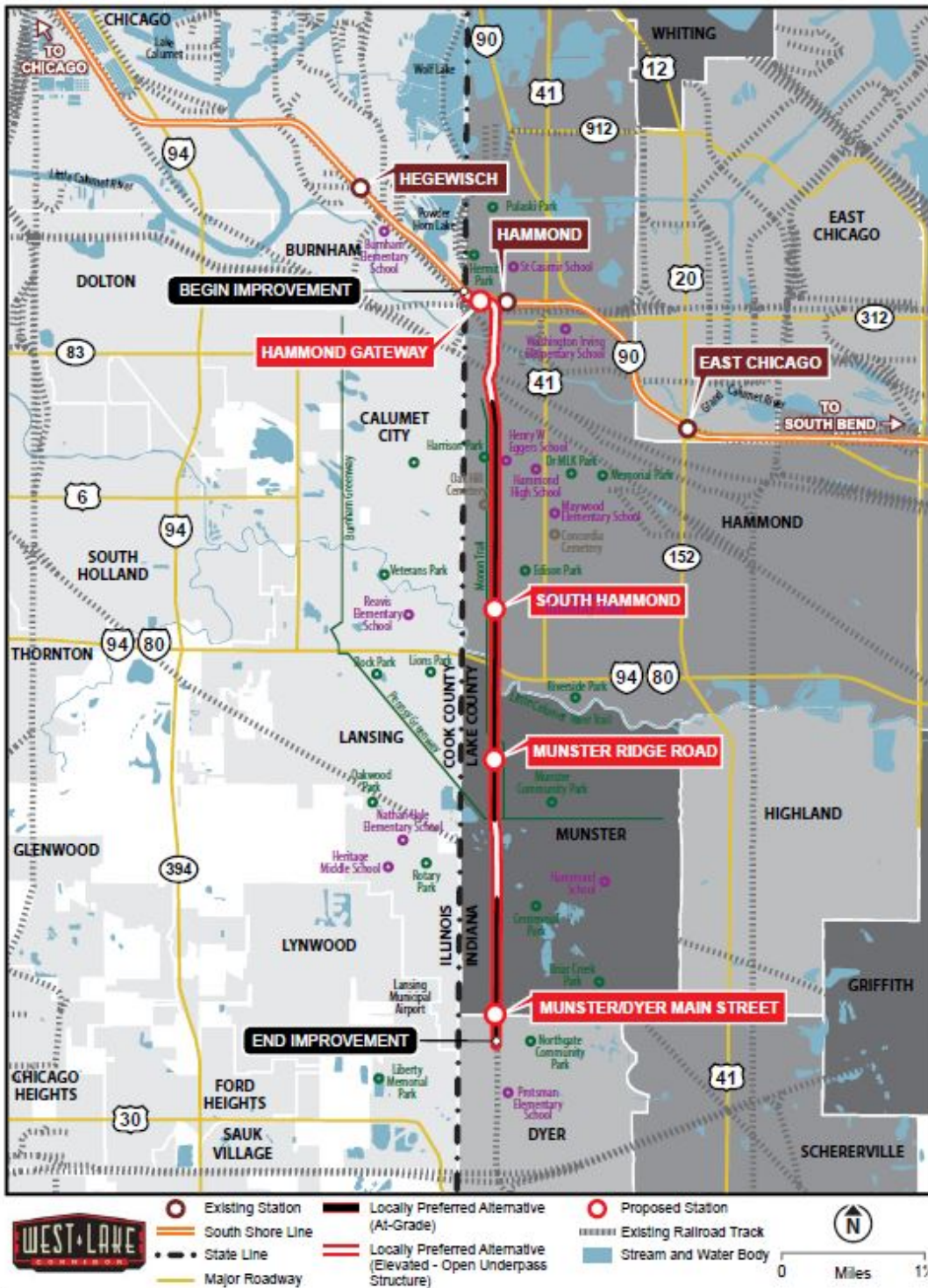
5.10.2 West Lake Corridor Project

The Federal Transit Administration on October 28, 2020 announced it had approved a full funding grant agreement to help construct NICTD’s West Lake Corridor, a new 8-mile branch of NICTD’s commuter rail network extending from Hammond south to Dyer. The extension will provide a new transportation alternative for travelers in Lake County, Indiana to reach downtown Chicago or South Bend International Airport, reducing travel times and promoting economic development. The federal funding agreement and projected initiation of construction in 2021 is the culmination of years of planning and discussions that began with the Northwestern Indiana Regional Planning Commission in 1989. A study released by NICTD in 2011, the *West Lake Corridor Study*, concluded that an extension of the existing South Shore Line to Munster/Dyer, IN that would provide commuter rail service to Chicago would best serve the public transportation needs of the area. NICTD purchased the former Monon Railroad right-of-way between Hammond and Munster in the 1990s to repurpose as the extension’s rail alignment.



Figure 5-8 – West Lake Corridor Project

WEST LAKE CORRIDOR PROJECT MAP - HAMMOND, IN TO DYER, IN



Source: Northern Indiana Commuter Transportation District



According to the West Lake Corridor’s Draft Environmental Impact Statement, NICTD’s intended goals for the project are the following:

- Increase transportation options for accessing downtown Chicago
- Reduce travel time to downtown Chicago
- Reduce the parking burden at existing transit stations
- Reduce travel costs
- Promote economic development

The 8-mile extension will be constructed in western Lake County and will provide improved station accessibility and reduced travel times to Chicago for passengers in the communities of Hammond, Munster, and Dyer. The project will attract an estimated 7,120 daily additional boardings on NICTD trains. As shown in Figure 5-8, the West Lake Extension will converge with the existing South Shore Line commuter line at Hammond, IN. Four new stations are proposed on the corridor: Munster/Dyer Main Street Station, Munster Ridge Road Station, South Hammond Station, and Hammond Gateway Station. The project also includes a commuter train storage and maintenance facility in Hammond.

The initial service plan proposes 12 weekday peak-period trips providing direct train service between Dyer and Millennium Station in Chicago – with 6 trains in the morning (5 to Chicago, 1 to Dyer) and 6 trains in the evening (1 to Chicago, 5 to Dyer) – as well as an additional 12 weekday off-peak trips between Dyer and Hammond, where passengers can transfer to trains for Chicago, Michigan City, or South Bend.¹⁶⁴ Travelers on direct trains from Dyer will be able make the 29-mile trip to downtown Chicago in 47 minutes. The existing South Shore Line station in Hammond will be replaced with the new Hamond Gateway station, which will allow riders to make convenient transfers between trains.

Federal FTA Capital Investment Grant funding totaling \$354.6 million will provide nearly 38% of the project’s \$945 million cost.¹⁶⁵ The State of Indiana has committed approximately \$318 million in funding to the project, with \$180 million distributed through the Indiana Finance Authority and payable over 30 years at \$6 million per year. The state approved an additional \$138 million in its FY 2020-2021 budget to make up the shortfall from NICTD’s request for federal funding of 49% of the project’s cost. Funding is also being provided by the Northwest Indiana Regional Development Authority and local communities. Hammond, Munster, and Dyer have established special taxing districts to facilitate the construction of transit-oriented developments around the new stations. The FTA awarded NICTD a \$1.2 million grant in 2020 to help plan transit-oriented development near

¹⁶⁴ NICTD, West Lake Corridor project website. Retrieved from: <http://www.nictdwestlake.com/>

¹⁶⁵ U.S. Department of Transportation news release, U.S. Transportation Secretary Elaine L. Chao Announces \$354.6 Million Grant Agreement for West Lake Corridor Project in Indiana. October 28, 2020. Retrieved from: <https://www.transportation.gov/briefing-room/us-transportation-secretary-elaine-l-chao-announces-3546-million-grant-agreement-west>



stations. The West Lake Corridor and a second NICTD expansion project, Double Track Northwest Indiana, are expected to generate \$2.3 billion in private investment in northwest Indiana, create more than 6,000 new jobs, and produce an economic impact of \$3 billion by 2048.¹⁶⁶ Revenue service on the West Lake Corridor is expected to begin in 2025.

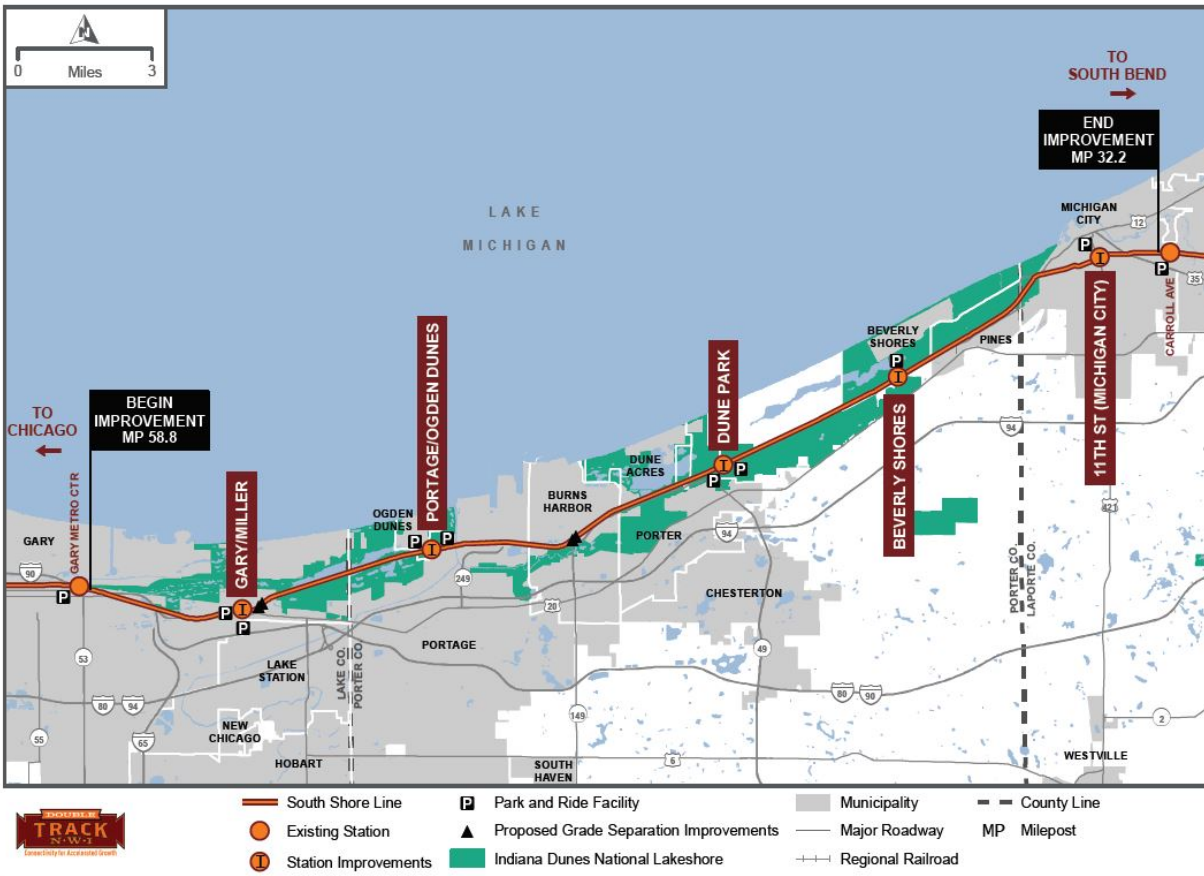
5.10.3 Double Track Northwest Indiana Project

East of Gary, NICTD's commuter rail line is primarily a single-track railroad, which results in constrained operational flexibility, particularly between Gary and Michigan City where track capacity decreases but train volumes remain high. Commuter and freight trains both use NICTD's track east of Gary, and delays can occur when one train has to wait at a station or on a passing siding for another train to pass by. Both types of services may be delayed or suspended if maintenance activities require the single track to be temporarily removed from service.

The existing alignment also includes a section of track in Michigan City where trains run through the middle of a city street, limiting track speed to as low as 15 mph for safety. As a result of the slow track speeds and limited opportunities for trains to pass each other, travel times between Michigan City and Chicago are slower on the train than by automobile. Approximately 40% of NICTD's current passenger demand is generated at stations east of Gary, where the line parallels Interstate 90 (I-90) and I-94. To improve operational reliability in this segment of the corridor and attract more ridership, NICTD has embarked on a project to construct a second mainline track on the single-track portion of its route between Gary and Michigan City (see Figure 5-9).

¹⁶⁶ NICTD news release, NICTD Announces Federal Transit Administration Approval to Enter into Engineering for the Double Track NWI Project. February 11, 2020. Retrieved from: <https://www.mysouthshoreline.com/news/item/268-northern-indiana-commuter-transportation-district-announces-federal-transit-administration-approval-to-enter-into-engineering-for-the-double-track-northwest-indiana-project>

Figure 5-9 – Northern Indiana Commuter Transportation District Double Tracking



Source: Northern Indiana Commuter Transportation District

The Double Track Northwest Indiana project will improve operational flexibility and reliability, reduce travel times, allow for expanded maintenance windows, and provide system redundancy in the case of service failures. NICTD’s project website¹⁶⁷ lists the following project benefits:

- Quicker travel times
- Increased service frequency
- Improved reliability
- Less need for temporary busing to get around planned maintenance
- Enhanced safety
- Opportunity for private investment and economic development resulting from faster and more frequent train service

¹⁶⁷ NICTD. Double Track NWI project website. Retrieved from: <https://www.doubletrack-nwi.com/>

The Double Track Northwest Indiana project involves constructing a second mainline track for 26.6 miles between Gary and Michigan City, upgrading five commuter rail stations including building 9 new station platforms, adding more than 1,300 new parking spaces at stations, and building four new bridges. The project would significantly improve safety and efficiency in Michigan City by eliminating 2 miles of embedded street running track (see Figure 5-9) and instead move NICTD to its own ballasted double-track right-of-way with a new station, allowing for higher track speeds, eliminating 21 grade crossings, and creating opportunities for new retail and residential development adjacent to the new Michigan City station.

Figure 5-10 – A South Shore Line train runs along the embedded street-running in Michigan City



Source: ymtram.mashke.org

The second track will allow trains to travel continuously in each direction, without having to wait at passing sidings, improving travel times and reliability. The project will construct two additional storage tracks at the Miller Station that will be used to extend NICTD's short-turn trains between Chicago and Gary. Stations at Miller, Portage/Ogden Dunes, and Michigan City will be rebuilt with high-level platforms to provide level boarding for riders, improving access and convenience.



The project is expected to more than double existing South Shore Line ridership and reduce travel times, saving 26 minutes on peak-period local trains between Michigan City and Millennium Station in Chicago, and allow for 67-minute peak express service between Michigan City and Chicago, a 33-minute trip reduction. Weekday service is planned to increase to 55 revenue trains, providing more trains during rush hour and more frequent and consistent off-peak service.

Indiana Governor Eric Holcomb has expressed his personal support of the Double Track NWI project. The governor wants to capitalize on the location where the NICTD line will be double-tracked as an opportunity to expand mobility, promote economic development, and alleviate road congestion, thus improving access for Hoosiers traveling between northwest Indiana and Chicago.

The state's FY18 and FY19 budget includes \$20 million for the double tracking project. Indiana added another \$41 million in funding in its FY 2020-2021 budget along with \$25 million in contingency funding for the Double Track NWI and West Lake Corridor projects.¹⁶⁸ Local funding will be provided by the Northwest Indiana Regional Development Authority, LaPorte County, St. Joseph County, and the cities of Michigan City and South Bend. On January 8, 2021, NICTD signed a full funding agreement with the Federal Transit Administration that will provide \$173 million in New Starts Capital Investment Grants funding for the project, which represents approximately 35% of the project's \$491 million cost and allows construction to begin.¹⁶⁹ Revenue service is projected to start in late 2023 or 2024.

5.10.4 Chicago Capacity Expansion

South Shore Line commuter trains use the tracks of Metra's Electric District for 14.6 miles between 115th Street in South Chicago and Millennium Station near the Loop. While 13.3 miles of this right-of-way consists of four tracks, a significant bottleneck exists on the approach to Millennium Station where the Metra Electric District narrows to three tracks for the final 1.2 miles into the station. This constrains South Shore Line operations to a single track arriving and departing Millennium Station, which prevents simultaneous inbound and outbound train movements. Any operational or infrastructure failure that might occur in this critical segment creates a single point of failure that influences operations over the entire line.

NICTD has proposed to construct another approach track to Millennium Station to improve system reliability, operational flexibility, and increase capacity. The estimated capital cost of a new approach

¹⁶⁸ NWI Times, Year in Review: South Shore Line Projects Reach Milestones. By Andrew Steele. December 2, 2019, Updated July 16, 2020. Retrieved from: https://www.nwitimes.com/business/local/year-in-review-south-shore-line-projects-reach-milestones/article_be3f1e62-e05f-59b3-a5d2-04b6ffec3c16.html

¹⁶⁹ Mass Transit Magazine, FTA, NICTD sign \$173 million FFGA for South Shore Double Track project. By Mischa Wanek-Libman. January 8, 2021. Retrieved from: <https://www.masstransitmag.com/rail/infrastructure/article/21205156/fta-nictd-sign-173-million-ffga-for-south-shore-double-track-project>



track between Van Buren Station and Millennium Station, along with platform improvements at both facilities, is \$49 million. NICTD expects to fund its share with a combination of federal, state, and local sources. The most recent five-year Metra track use agreement signed by NICTD in 2019 included a provision whereby NICTD would pay Metra an initial \$30 million to construct the approach track and the agencies would share funding responsibility for the rest of the project's cost.¹⁷⁰

5.10.5 Equipment Procurement and Rebuilding Initiatives

NICTD's equipment fleet consists of self-propelled Electric Multiple-Unit (EMU) cars that draw power from an energized catenary wire suspended above the track. In January 2021, NICTD announced an agreement to lease 26 EMU cars from Metra for up to 15 years beginning in 2023 for \$3.5 million per year.

The bi-level EMU cars were built by Nippon Sharyo for service on Metra's Electric District, under an order placed by Metra in 2003 that NICTD piggybacked onto with an order of its own for 14 cars.¹⁷¹ The leased equipment will enable NICTD to add 26 more revenue trains to its schedule once the West Lake Corridor and Double Track NWI expansion projects have been completed.

NICTD's capital plan also includes State of Good repair funding amounts for mid-life rebuilds of 10 existing EMU cars that the agency acquired in 2001. Previous mid-life rebuilding programs begun in 1998-1999 for cars built in the early 1980s enabled that fleet to continue in revenue service past its federally expected minimum service life of 25 years.

¹⁷⁰ Chicago Post-Tribune, NICTD approves new pact with Metra for rail use. By Tim Zorn. February 27, 2019. Retrieved from: <http://www.chicagotribune.com/suburbs/post-tribune/ct-ptb-nictd-metra-contract-st-0301-story.html>

¹⁷¹ Railway Age, NICTD Advances Railcar, Track Projects. By Marybeth Luczak. January 28, 2021. Retrieved from: https://www.railwayage.com/passenger/commuterregional/nictd-advances-railcar-track-projects/?utm_source=&utm_medium=email&utm_campaign=22138#

5.10.6 South Bend Track Realignment

South Shore Line trains arriving at South Bend travel on a slow, semi-circular alignment that crosses multiple streets before reaching the terminal station at the South Bend International Airport (see Figure 5-11). The circuitous alignment and lower track speed adds nearly 10 minutes to the travel time of a South Shore Line trip between South Bend and Chicago when compared to the estimated trip time on a more direct routing.

Figure 5-11 – NICTD’s existing alignment through South Bend is circuitous



Source: Northern Indiana Commuter Transportation District

NICTD and the City of South Bend have been engaged in a planning process to improve the NICTD alignment through South Bend. The city released the results of a study in 2018 that identified five feasible alternatives for a new NICTD right-of-way and South Bend station and assessed the costs and benefits of each.¹⁷²

¹⁷² NWI Times, Five options for new South Shore station in South Bend. By Andrew Steele. April 21, 2018, Updated September 12, 2018. Retrieved from: https://www.nwitimes.com/business/local/five-options-for-new-south-shore-station-in-south-bend/article_c53d215b-5cc1-57e1-a9cc-9a2cc8e84224.html



The five options were:

- An initial airport realignment plan suggested by NICTD, which would move the station from the east to the west side of the airport and build a more direct approach to the station, eliminating 16 of 23 grade crossings and reducing travel time by up to 10 minutes
- A "chocolate factory" site in the southwest quadrant of the U.S. 20 and U.S. 31 interchange, the location of a proposed South Bend Chocolate Factory tourist destination
- A site on Honeywell Corp. property at Westmoor Street west of Bendix Drive, using the current South Shore tracks
- The current Amtrak station at Washington and Meade streets
- A downtown site near the Union Station Technology Center on South Street along existing freight tracks

The report stated that any of the potential alignments would allow NICTD to improve the travel times of South Shore Line trains. When combined with additional speed upgrades established as part of the Double Track NWI project, trains could make a trip from Chicago to any of the proposed station sites in South Bend in 82 to 84 minutes. Projected daily passenger boardings ranged from 698 at the chocolate factory site to 735 at a downtown station. NICTD has included \$30 million in its capital plan for a South Bend station relocation and alignment straightening and will move forward with the option that the city ultimately designates.

5.11 Concepts from Stakeholder Outreach

The State Rail Plan development process included opportunities for stakeholders and members of the public to submit comments and suggestions, including those related to passenger and commuter rail transportation in the state. These opportunities included stakeholder meetings held on October 27, 2020, January 26, 2021, and May 19, 2021; one-on-one interviews conducted with Indiana planning organizations and passenger rail groups; and an opportunity for the public to comment on the updated State Rail Plan during an online survey posted on INDOT's website from October 7, 2020 to January 4, 2021.

A complete description of public and stakeholder outreach efforts conducted for the 2020 State Rail Plan can be found in Chapter 8. Specific comments regarding passenger rail and commuter rail enhancements are summarized below.

5.11.1 Passenger Rail User Interviews

INDOT conducted five interviews of Indiana regional transportation planning organizations and passenger rail associations during October 2020 as part of the State Rail Plan development process. The interviews focused on potential improvements to intercity passenger rail and commuter rail services in the state. This section provides a summary of the responses from participants addressing key topics discussed during the interviews.



Reasons for traveling by train. Time, money, and stress are the three primary motivators respondents identified for taking public transportation instead of driving. Travelers most often choose to ride a train (1) to avoid driving and road traffic, particularly on I-65 and in the Chicago region, and (2) to lower travel costs by avoiding tolls, gasoline expenses, parking fees, and vehicle wear and tear.

Respondents were unanimous in naming the conditions they said were required to convert more trips to rail. Those are:

- Convenient departure times and enough frequencies to encourage travel by rail instead of driving
- Auto-competitive or faster trip times
- Economical ticket pricing, especially for families
- A comfortable environment with amenities such as Wi-Fi and food service that allows travelers to do things they cannot do if they are driving, such as work, read, have a snack, etc., and enable the public to see that the train provides productive time

Assessment of current services. All respondents agreed that the current Amtrak intercity passenger rail service in Indiana is minimal, consisting primarily of three long distance trains between Chicago and the East Coast, with schedules that are not conducive for travel in Indiana. Slow travel times to Chicago, freight rail congestion near Chicago, and poor on-time performance of the long-distance trains also discourage riders from using the train. Slow travel times to Chicago, freight rail congestion near Chicago, and poor on-time performance also discourage riders from using the train. Respondents also noted that services with these types of drawbacks don't encourage states to want to invest in passenger rail or encourage political support for the passenger rail service.

Top travel corridors and service attributes. Some of the key travel lanes that respondents believed passenger rail would be favorable for are:

- Travel on the I-65 corridor between Indianapolis and Chicago
- Travel to and from Chicago's O'Hare International Airport
- Travel on the U.S. 30 corridor between Chicago, Fort Wayne, and Lima

The most important aspects of passenger rail service, from most often cited to least, are:

- Frequency – having multiple departures per day
- Reliability – on-time transportation is a key selling point
- Competitive/faster trip times – service as fast as or somewhat faster than an automobile trip
- Modern equipment and on-board amenities – an atmosphere that enables time on the train to be productive and enjoyable
- Convenience – schedules geared to times when people want to travel
- Affordability – reasonable fares priced less than the cost of gas, tolls, parking, and vehicle wear and tear
- Station connectivity – good transit connections and first-mile/last-mile services at stations



Impacts of COVID-19. Although the COVID-19 pandemic may have temporarily reduced the demand for travel and use of passenger and commuter trains, in the long-term the desire for to travel will return once it is safe to do so. The objective for planners should be on establishing new passenger rail services that are convenient and attractive to draw intercity travelers out of their cars and on board trains.

Potential rail investment priorities. When considering future investments in passenger rail, respondents stated that Indiana should focus on establishing intercity passenger rail service in corridors where travel demand overall is high, and ensure that the rail service is reliable, uses modern equipment, connects downtown areas and multimodal transportation facilities, and operates at times when travelers will want to ride the train.

Respondents offered the following general comments and suggestions regarding the development of intercity passenger rail corridors in Indiana:

- Establish Indianapolis as a hub of high-frequency rail corridors radiating in multiple directions
- Connect major metropolitan areas in Indiana with areas in neighboring states
- Connect major Indiana cities, providing downtown-to-downtown service

Specific corridors that would most benefit from new passenger rail services, from most frequently cited to least, include:

- Indianapolis – Chicago
- Chicago – Fort Wayne – Lima – Columbus - Pittsburgh
- Indianapolis – Cincinnati
- Indianapolis – Louisville
- Indianapolis – Bloomington
- Indianapolis – Terre Haute – St. Louis
- Valparaiso – Chicago (commuter service)

One respondent stated that a strong focus is needed on creating a dedicated, two-track, electrified passenger main line around the south of Lake Michigan for corridor services from Chicago serving Indiana and Michigan.

Potential actions for INDOT and state legislators. Respondents stated that gaining political support for passenger rail in Indiana will be a critical component of any successful service implementation. Promotional efforts centered on passenger rail transportation in Indiana should be focused on gaining public support for planned future service expansions and promoting an awareness of what is possible with modern passenger rail transportation.

General attitude toward passenger rail expansion. Two of the five respondents were optimistic about the possibilities for passenger service in Indiana but recognized that significant challenges surrounding funding and political support would have to be addressed. One respondent was



pessimistic, based on the historic low levels of federal and state support for intercity passenger rail service. Two respondents were optimistic about the future of passenger rail in Indiana.

Several respondents were encouraged by the state's significant investment in the NICTD expansion projects for the South Shore Line commuter system. They hoped that the momentum from the successful implementation of those projects would encourage more investment in passenger rail transportation.

5.11.2 Online Survey Responses

Members of the public who filled out survey questions on the INDOT website provided the following responses to questions regarding passenger and commuter rail service in Indiana.

When asked if they had ever used Amtrak service in Indiana:

- 64% of respondents said yes
- 36% of respondents said no

When asked why they had used Amtrak service in Indiana, respondents gave the following reasons:

- 44% said it was a fun experience
- 41% said it was affordable
- 30% said it was convenient
- 27% said it was environmentally friendly
- 18% said it was easy to connect to other routes
- 4% said it was their only option
- 31% said they had not used Amtrak

When asked what types of trips they might take if passenger rail service in their region was introduced or expanded:

- 92% of respondents said they would travel by rail from Indiana to neighboring states such as Illinois, Michigan, or Ohio
- 75% of respondents said they would travel by rail to connect with other transportation modes (airports, transit hubs)
- 75% of respondents said they would travel by rail within Indiana, if the service traveled at high speeds but made limited stops
- 67% of respondents said they would travel by rail within Indiana, if the service traveled at conventional speeds and stopped at many communities
- 34% of respondents said they would travel by rail to go to and from work
- 3% of respondents said they would not use passenger rail in Indiana

When asked how important expanding commuter rail service is for Indiana:

- 74% of respondents said it was a critical need
- 21% of respondents said it was of limited importance
- 5% of respondents said it was not important



When asked if they would support expanded public programs to support passenger and commuter rail services:

- 95% of respondents said yes
- 5% of respondents said no

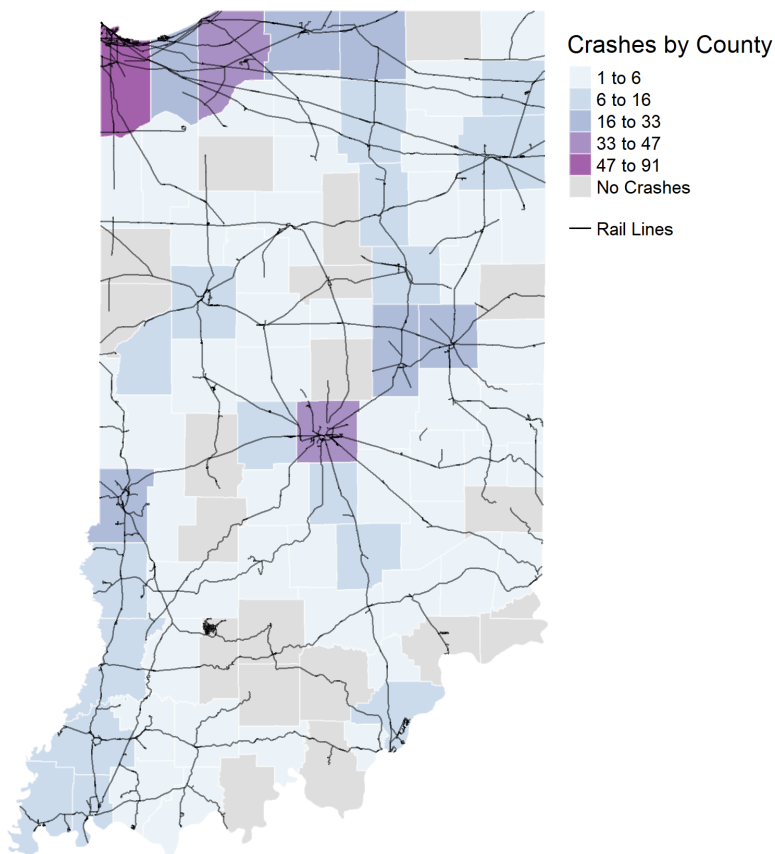
Chapter 8 of the State Rail Plan includes specific projects identified for further development, if funding were to be made available.

6 Proposed Freight Rail Improvements and Investments

6.1 Highway-Rail Grade Crossing Safety Improvements

A detailed assessment of highway-rail grade crossing safety in Indiana is provided in Chapter 2. As of 2020, Indiana has 5,564 public highway-rail and pathway grade crossings and an additional 2,072 private at-grade crossings, which are privately owned and are not under Indiana Department of Transportation (INDOT) jurisdiction. Over the past five years, Indiana has experienced a total of 612 crashes at highway-rail grade crossings, including 71 fatalities. The distribution of these crashes by county is shown in Figure 6-1.

Figure 6-1 – Highway-Rail Grade Crossing Crashes by County (2015 – 2019)



Source: HDR Analysis of FRA Accident/Incident Data

INDOT plays an active role in seeking to improve highway-rail crossing safety through a variety of methods. The many crossing improvement strategies at INDOT’s disposal include:

- **Crossing closure:** Fully closing the crossing for both motor vehicles and pedestrians eliminates the potential for a crash but may also have a detrimental impact to traffic circulation and access for local residents and emergency vehicles.



- **Grade separation:** Similar to crossing closures, grade separations eliminate the potential for a crash. Grade separations inherently come with higher costs and may not be feasible at all locations.
- **Train-activated warning device improvement:** Active warning devices include one or more gates that physically block access to the crossing and flashing light signals and bells that alert the public that a train is approaching the crossing.
- **Passive warning device improvement:** Passive warning devices include signage and pavement markings that alert the public to the location of a crossing but are not activated by an approaching train.

Funding for these projects is provided primarily through two programs: The Rail-Highway Crossing Program (Section 130) and the Railroad Grade Crossing Fund.

6.1.1 Rail-Highway Crossing Program (Section 130)

The federal government provides state funding through the Section 130 program for use on projects that reduce or eliminate hazards at highway-rail grade crossings. States are free to determine the specific uses of the funds within certain guidelines. In Indiana, the funds are primarily used to target improvements for train-activated warning devices. The two most common highway-rail grade crossing improvements are 1) the upgrade of a passively protected crossing (e.g. stop, yield, or crossbuck signs only) with train activated gates and flashing light signals and 2) the upgrade of existing active warning devices with four-quadrant gates, overhead cantilever flashing light signals, or warning device modernization, as illustrated in Figure 2-24. Annual funding under this program for Indiana averages approximately \$7.4 Million per year. This typically funds roughly 20 projects for an average project cost of \$370,000. The funding pays for 90 percent of project costs with the remaining 10 percent coming from either the local roadway authority or the railroad.

INDOT uses a hazard index formula to select projects for its Rail-Highway Crossing Program. This hazard index is based on concepts documented in the Federal Highway Administration (FHWA) Highway-Rail Crossing Handbook.¹⁷³ The hazard index relies on a variety of factors including train and highway daily volumes and maximum speeds, the number of highway lanes and railroad tracks, the angle of the crossing, and the number of crashes occurring over the previous five years. The hazard index is the primary tool used by INDOT to prioritize highway-rail grade crossing improvements in the state, but other factors such as feedback from local jurisdictions and adjacent developments are also included in the decision.

¹⁷³ Federal Highway Administration, Highway-Rail Crossing Handbook – Third Edition. Retrieved from: https://safety.fhwa.dot.gov/hsip/xings/com_roaduser/fhwasa18040/

Figure 6-2 – Typical Section 130 Program Project



Source: INDOT

6.1.2 Railroad Grade Crossing Fund

The Railroad Grade Crossing Fund was established by the State of Indiana to provide funding for highway-rail grade crossing improvements. The total funding amount is less than the Rail-Highway Crossing Program and as a result, this fund is typically used to construct passive highway-rail grade crossing improvements such as signage, pavement markings, median barriers, and illumination. In 2021, the Railroad Grade Crossing Fund distributed a total of \$785,877 to 36 applicants for an average funding amount per project of \$21,830.

The Crossing Closure Program is a component of the Railroad Grade Crossing Fund and is used by INDOT to incentivize the permanent closure of highway-rail grade crossings. Projects are awarded on a first-come/first-served basis and the funding amount per crossing ranged from \$20,000 to \$50,000 depending on the predicted accident rate. During the five-year period from 2016 to 2020, nine public highway-rail grade crossings were closed.



6.1.3 Indiana Local Trax Rail Overpass Program

In 2018, the State of Indiana established the Local Trax program, designed to increase safety by providing funding for grade separations, highway-rail grade crossing closures, and other highway-rail grade crossing safety improvements. The program requires applicants to provide 20 percent of funding for construction and right-of-way acquisition. INDOT will provide 100 percent of the bridge design and inspection fees. The program has been cited by the Federal Railroad Administration (FRA) as a noteworthy practice that improves safety through partnerships between INDOT, local communities, the railroads, and businesses and industry.¹⁷⁴

Table 6-1 below lists the 12 projects that were awarded Local Trax program funding in 2018 and are scheduled to be constructed within the next four years.

Table 6-1 – Indiana Local Trax Program Funded Projects 2021-2024

Project Recipient	Project Name	Project Description	Grant Amount
Elkhart	Hively Avenue Grade Separation	Improved safety from grade separated crossing over Norfolk Southern Railroad	\$12,264,000
Elkhart County	Elkhart Local Trax Railroad Grade Separation at Sunnyside Ave./Concord Mall Dr and CR 13	Eliminate the two highway-rail grade crossings and provide a single, grade-separated (overpass) crossing.	\$14,088,000
Kosciusko County	Kosciusko County CR1300N Extension over Norfolk Southern Railroad and Main	Extends CR1300N over Norfolk Southern Railroad in Milford, creating a new grade separated crossing	\$6,489,945
Gary	N Clark Road Grade Separation Project	Highway-rail grade crossing Removal N Clark Road (41.624916, -87.3 94131)	\$15,200,000
Schererville	Kennedy Avenue Grade Separation Project	New bridge, Kennedy Avenue over Canadian National and Norfolk Southern in Schererville	\$6,040,440
Hammond	Governor’s Parkway Railroad Overpass	New bridge over Norfolk Southern, 800 feet E of Parrish, 600 feet N of 173rd in Hammond	\$5,460,070

¹⁷⁴ Federal Highway Administration, Railway-Highway Crossings (Section 130) Program, Noteworthy Practice. Retrieved from: <https://safety.fhwa.dot.gov/hsip/xings/fhwasa19036/>



Project Recipient	Project Name	Project Description	Grant Amount
Hobart	Colorado Street Overpass	New bridge, Colorado Street over Canadian National Railroad in Hobart	\$5,574,280
La Porte	Tipton Street Railroad Overpass	New bridge, Tipton Street over Norfolk Southern Railroad	\$6,238,880
Vanderburgh County	Mill Road Railroad Overpass	New bridge, Mill Road approximately 650' west of Kratzville Road over CSX Railroad in Evansville	\$5,000,000
Terre Haute	8th Avenue Grade Separation	New bridge, 8th Avenue over CSX in Terre Haute	\$13,520,000
Wabash	N. East Street Grade Separation	New bridge, N. East Street over the Norfolk Southern Railroad, 0.08 miles N. of E. Hill St.	\$7,147,200
Wells County	Hoosier Highway Reroute	Highway-rail grade crossing removal, rerouting of Hoosier Highway in Wells County to connect to Adams Street at Bluffton City	\$4,590,323.99

Source: INDOT 2020-2024 STIP¹⁷⁵

6.2 State of Good Repair/Corridor Preservation

6.2.1 Track and Bridge Weight Capacity

Typically, one of the largest constraints on Class II and Class III railroads in the U.S. is developing and maintaining the infrastructure to accommodate railcars with a maximum allowable gross weight of 286,000 lbs. - now the industry standard car weight.

Railcars with larger loading capacity provide greater operating efficiency while increasing capacity and synergy for rail operations and rail shippers. Most Class III railroads have legacy infrastructure suited to low-density operations and railcars of lighter weight. Class II and Class III railroads that are unable to make the appropriate upgrades may be at a competitive disadvantage.

Upgrading rail lines to accommodate these heavier rail cars can be costly and may require upgrading tracks and bridges. Within Indiana, at least 154 route miles of rail are currently unable to accommodate 286,000-lb. railcars.

¹⁷⁵ INDOT, 2020-2024 STIP. Retrieved from: <https://www.in.gov/indot/2348.htm>



For more information on the weight capacity of rail lines in Indiana, see Section 2.1.2.

6.2.2 Track Condition

The ongoing routine maintenance of rail track infrastructure is essential for safe and reliable railroad operations. The FRA has established specific maintenance standards that must be adhered to in order to allow various types of trains to operate and at certain speeds. These standards specify requirements for the number of undamaged crossties that must be installed per a certain length of track. Crossties are necessary to hold the track gauge (56.5 inches / 1435 mm), effectively the measured width between the rails, to within an acceptable margin to avoid the risk of derailment. FRA has established categories known as track classes that relate maintenance standards to railroad operating speeds. Track classes are not strictly an indicator of the state of good repair, but instead are a set of standards that scale to accommodate different operational requirements. Table 6-2 describes the track classes as defined in the Code of Federal Regulations (CFR).

Table 6-2 – 49 CFR § 213.9 Classes of Track: Operating Speed Limits

Track Class	Maximum Passenger Speed	Maximum Freight Speed
Excepted track	N/A	10
Class 1 track	15	10
Class 2 track	30	25
Class 3 track	60	40
Class 4 track	80	60
Class 5 track	90	80

49 CFR § 213.9 Classes of Track: Operating Speed Limits

Appendix A, Table A-3 and A-4 provide the FRA track classifications for the rail lines used by Class II and III railroads in Indiana.

In addition to FRA requirements, modern track geometry measurement systems and well-established engineering calculations are used to determine the maximum safe operating speed for both passenger and freight trains on a given alignment. When track conditions do not permit trains to operate safely at the given design speed, permanent and/or temporary speed restrictions may be applied over a section of track until the issues are corrected.

Main lines of Class I and some Class II railroads are typically maintained to Class 4 track standards, which supports freight speeds of up to 60 miles per hour (mph) and passenger speeds of up to 80 mph. On some high-density corridors where intermodal freight is operated at greater than 60 mph or passenger trains operate at up to 90 mph, the track must meet the requirements of FRA Class 5.



FRA has developed additional track classes to support higher-speed passenger operations, but these are not currently used in Indiana.

On lower density lines of Class I, II, and III railroads, track is typically maintained to Class 1, 2, or 3 standards. Often only very lightly used industrial spurs and yard tracks fall into the Excepted category, which imposes additional operational restrictions.

Deferred maintenance may result in track being downgraded to a lower track class, resulting in slower train operations. Developing a business case and determining funding sources for ongoing preventative or rehabilitative track maintenance may present as a challenge for some railroads, as the business case for the continued operations on any given segment may evolve depending on changes in freight demand and network planning decisions.

6.3 Intermodal Freight

6.3.1 Class I Railroad Intermodal Service and Facilities

6.3.1.1 CSX Transportation

CSX operates one intermodal terminal in Indiana, located at the CSX yard in Avon, just outside of Indianapolis. According to publicly available intermodal schedules on CSX's website, CSX offers the following intermodal services from Indianapolis via the Avon Yard¹⁷⁶:

- International container intermodal service to Elizabeth Marine Terminal, NJ
- International container intermodal service to Port Newark Terminal, NJ
- Domestic intermodal service to North Bergen, NJ
- Domestic intermodal service to Worcester, MA

CSX also operates intermodal terminals in Chicago, IL; Cincinnati, OH; and Louisville, KY, all within 20 miles of Indiana.

The CSX Avon terminal currently has limited capacity, with only two short tracks available for container loading and unloading. As a result, more switching moves are required for originating and terminating intermodal trains. Additionally, street routes leading to the facility are narrow and require trucks to negotiate tight turns at intersections.

¹⁷⁶ CSX Transportation, Intermodal Schedules. Retrieved from:
https://shipcsx.com/pub_sx_mainpagepublic_jct/sx.shipcsxpublic/Main?module_url=../pub_sx_ishedulepublic_jct/sx_ishedulepublic/ScheduleLanding.evt



6.3.1.2 *Norfolk Southern*

Norfolk Southern does not currently operate any intermodal terminals in Indiana.¹⁷⁷ However, NS does operate terminals in Chicago, IL; Cincinnati, OH; and Louisville, KY, all within 20 miles of Indiana.

6.3.2 Class II Railroad Intermodal Service and Facilities

6.3.2.1 *The Indiana Rail Road Company*

The Indiana Rail Road Company (INRD) provides international container intermodal service from its Senate Avenue intermodal facility in Indianapolis in partnership with Canadian National (CN). CN offers connections to the Canadian ports of Prince Rupert and Vancouver, which are geographically closer to Asia than any west coast ports in the United States. This geographic advantage results in shortened transit times by sea. A container can travel from Shanghai, China to Indianapolis in as few as 21 days via this route, approximately 2.5 days faster than any routing via the Ports of Los Angeles/Long Beach in Southern California.¹⁷⁸ The INRD service is the only direct rail intermodal service between the west coast and central Indiana, and benefits many Indiana businesses, transporting commodities including auto parts, agricultural products and consumer goods.

The INRD Senate Avenue intermodal facility handled over 40,000 containers in 2020. However, the demand for containerized freight, both international and domestic, is increasing and the existing facility is at capacity. Furthermore, street routes leading to the facility are narrow, requiring trucks to negotiate tight turns at intersections, and the truck entrances to the facility are not efficient.

To meet increased demand, INRD plans to expand the size and capacity of this intermodal facility. INRD is planning to purchase land adjacent to the existing location in 2021 to develop additional space for container storage. The project includes new in and out gates with queuing lanes, supported by technology enhancements, for trucks to access the facility more efficiently. Two mobile electric container high-lift handlers will be purchased for operational efficiency and environmental compliance, replacing older diesel-powered lifts. These improvements will solve many of the operational issues with the current facility.

6.4 Rail and Economic Development

Proper railroad and business infrastructure are needed in order to support the origination and termination of freight by rail. For safe and efficient rail operations, railroads do not allow shippers to load and unload freight other than at designated locations. Such locations may consist of a rail spur owned either by the railroad or by the customer that leads directly to the shipper's facility, or, in

¹⁷⁷ Norfolk Southern, Intermodal Terminals & Schedules. Retrieved from:

<http://www.nscorp.com/content/nscorp/en/shipping-options/intermodal/terminals-and-schedules.html>

¹⁷⁸ The Indiana Rail Road Company, Intermodal. Retrieved from:

<http://www.inrd.com/intermodal.aspx>



other cases the location may be a designated railroad team track or transload facility where one or more shippers can transfer freight between rail and truck.

One notable trend is that many rail-served warehouses and industrial properties centrally located in urban areas have fallen into disuse. Today, many prospective rail shippers prefer to establish themselves in rail-served industrial parks or greenfield locations where they can customize a site to meet their specific needs.

In many cases, rail-served warehousing may have undergone adaptive re-use to serve other purposes, including both industrial, commercial, and residential uses. Adaptive re-use in former industrial areas may be desirable for urban revitalization efforts. However, if diverting freight from truck to rail is deemed a priority, it may be desirable for local jurisdictions to seek to reserve the use of existing rail-served properties for businesses that are existing or potential rail users.

In most cases, shippers prefer direct rail access rather than a truck-to-rail transload whenever possible. Trucking product to and from a rail transload site increases the cost and complexity of shipping. Nevertheless, for freight destined to or from sites without rail access, or for infrequent or one-time shipments, transloading remains an attractive option to enable the use of rail for freight transportation.

6.4.1 Reuse of Military Sites / Vermillion Rise Mega Park

Former military facilities, especially former Army sites related to the production or storage of munition, have been successfully transitioned to industrial, distribution, and commerce locations across the country. In Indiana, LaPorte County's Kingsbury Ordnance Plant and the Indiana Army Ammunition Plant in Clark County are examples of sites that have undergone environmental cleanup processes and are now functioning as business parks.

The Vermillion Rise Mega Park ¹⁷⁹ is the site of the former Newport Army Chemical Depot. This site formerly stored chemical munitions and went through similar cleanup processes. It is now a private industrial development opportunity in Vermillion County. The County is marketing the property to attract some key businesses located there. Its potential is based on its massive size, great accessibility, remote location, and friendly business environment. It would be very suitable for a large heavy industrial user, but rail access is critical to the development of this site.

A CSX main rail line runs north-south approximately two miles east of the industrial park while Watco's Decatur and Eastern Illinois Railroad runs east-west approximately two miles south of the

¹⁷⁹ Vermillion Rise Mega Park. Retrieved from: <http://www.vermillionrise.com/>



park's largest site. The plan is to develop a rail connection into the industrial park from the Decatur and Eastern Illinois Railroad line.

6.5 Federal Grant Programs

Historically, freight-rail infrastructure and operations have been funded almost entirely by private-sector companies. Few dedicated programs for rail capital assistance to states existed at the federal level until 2008. The Passenger Rail Investment and Improvement Act of 2008 (PRIIA) and related appropriation bills provided funds for intercity passenger-rail investments directly to states in 2008 and amounted to \$13 billion in total investment between 2009 and 2013. In 2009, the American Recovery and Reinvestment Act (ARRA) provided additional transportation funding options to states that could be leveraged for passenger-rail development. Provisions of SAFETEA-LU (the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users of 2005) contained a number of options for funding rail line relocations, infrastructure and facilities improvements, enhanced connectivity between transportation modes, and safety initiatives in addition to offering loans and credit assistance to public and private sponsors of rail and intermodal projects.

The following section describes grant programs that are available to Indiana and other states specifically for rail assistance as well as those programs that might be eligible for rail-related funding. The federal surface transportation authorization (SAFETEA-LU) expired in 2020 and, at the time of publication of this State Rail Plan, will need to be renewed or superseded by future legislation.

6.5.1 Current Federal Grant Programs

6.5.1.1 *Rebuilding American Infrastructure with Sustainability and Equity (RAISE), previously known as BUILD and TIGER Grants (FY 2009–2021)*

The RAISE program provides a unique opportunity for the DOT to invest in road, rail, transit and port projects that promise to achieve national objectives. RAISE funds projects that have a significant local or regional impact.¹⁸⁰

6.5.1.2 *Infrastructure for Rebuilding America (INFRA) Grants (FY 2017–2021)*

The INFRA program provides dedicated, discretionary funding for projects that address critical issues facing our nation's highways and bridges. INFRA grants created opportunities for all levels of government and the private sector to fund infrastructure in innovative ways that improved project delivery and increased accountability.

¹⁸⁰ U.S. Department of Transportation, RAISE Discretionary Grants. Retrieved from: <https://www.transportation.gov/RAISEgrants>



6.5.1.3 Consolidated Rail Infrastructure and Safety Improvements Program (CRISI) (FY 2017–2021)

The CRISI program provides funding for capital projects that improve passenger and freight rail transportation systems in terms of safety, efficiency, or reliability.

6.5.2 Recent Federal Grant Awards Received in Indiana

6.5.2.1 Indiana – Safer Railroad Crossings in Nappanee (CRISI FY 2020)

Up to \$1,418,000 – Awarded to Civil City of Nappanee, IN

Improves seven highway-rail grade crossings in Nappanee, Indiana. Specifically, this project will fund the installation of Constant Warning Time Circuitry; roadway modifications (including channelization, medians, curbing, or closing commercial driveways); improved vertical geometry for low-ground-clearance vehicle crossings; a safety program to educate drivers about local safety issues related to crossings; and suicide prevention outreach materials along a 2.5-mile rail corridor. Upon completion, the seven public highway-rail grade crossings in this corridor, which average 44 trains per day, will meet all requirements to establish a Quiet Zone, with an expected reduction in the FRA Quiet Zone Risk Index by over half.

6.5.2.2 Ohio – Linking Lima Project (Multiple Opportunity Zones) (CRISI FY 2020)

Up to \$4,530,546 – Awarded to Ohio Rail Development Commission

Rehabilitates the Chicago, Ft. Wayne & Eastern Railroad (CFE) between Lima, Ohio, and Ft. Wayne, Indiana. Installs new ballast and ties, converts approximately 10.8 track miles from jointed rail to continuous welded rail, replaces seven turnouts, rehabilitates one turnout, and reconstructs yard tracks. The improvements will increase yard speeds from 5 to 10 miles per hour in the Lima Yard and from 10 to 40 miles per hour on the mainline track, and allow for increased freight gross tonnage for steel, agricultural, energy, and manufactured goods shipments.

6.5.2.3 Ohio – Napoleon, Defiance & Western Safety Upgrade (Multiple Opportunity Zones) (CRISI FY 2020)

Up to \$4,112,452 – Awarded to Ohio Rail Development Commission

Upgrades approximately 10 miles of 80-pound rail with 132-/136-pound rail and replaces approximately 29,000 ties on 29 miles of the Napoleon, Defiance & Western (NDW) Railroad between Woodburn, Indiana and Defiance, Ohio. The project improves the rail line from marginal excepted condition to FRA Class I track, reducing the risk of derailment due to poor track structure.

6.5.2.4 Indiana and Illinois – Crawford County Rural Railroad Bridge Project (CRISI FY 2018)

Up to \$7,155,000 – Awarded to the Indiana Rail Road Company



Replaces nine timber railroad bridges in Crawford County, Illinois, on the Indiana Rail Road Company with concrete bridges, preserving safe and reliable transit times and connectivity from Southern Illinois to Central Indiana.

6.5.2.5 Indiana and Illinois – Chicago South Shore & South Bend Rail Rehabilitation and Safety Improvement Project (CRISI FY 2018)

Up to \$2,831,705 – Awarded to the Chicago South Shore & South Bend Railroad

Upgrades 7.5 miles of rail, replacing 100-year-old, 90-pound track with 115-pound track between Michigan City and La Porte, Indiana. Upgrades an existing rail crossing north of Highway 35 in Michigan City, ensuring compatibility with the new track.

6.5.2.6 Indiana – Developing and Implementing a Mobile Device Emergency Responder Access Application for the Louisville and Indiana Railroad Company (CRISI FY 2018)

Up to \$335,361 – Awarded to Louisville and Indiana Railroad Company

Develops a geographic information system mobile application for the Louisville and Indiana Railroad Company with software, linking railroad dispatch and first responders, aiding communication and response during railroad incidents. The railroad will collaborate with the American Short Line and Regional Railroad Association and the Short Line Safety Institute.

6.5.2.7 Indiana – The Graham Creek Bridge Replacement Project (CRISI FY 2018)

Up to \$4,200,000 – Awarded to the City of Madison Port Authority

Replaces a structurally deficient, 130-year-old railroad bridge at Graham Creek, roughly 17 miles north of Madison, Indiana.

6.5.2.8 Wabash River Rail Bridge Infrastructure Revitalization (TIGER FY 2017)

\$10,000,000 – Awarded to Indiana Department of Transportation

The \$20,000,000 project replaced two deteriorating freight rail approaches to the Wabash River Bridge, which serves as a rail link from energy and agricultural suppliers of Illinois to river ports of Mt. Vernon, Indiana. The project replaced two bridge approaches that, if left unimproved, would have threatened the mobility of goods in the region. As a connector line to four major Class I railroads, the impact to economic competitiveness includes the long-term efficiency in the movement freight rail, which is particularly important for this economically challenged rural area.



6.5.2.9 Jeffersonville Truck-to-Rail and Rail-to-Water Improvements (TIGER FY 2015)

\$10,000,000 – Awarded to Ports of Indiana

This TIGER grant provided funding to construct a double rail loop and rail-to-barge transfer facility with additional rail and turnouts. The project also included construction of a nearly mile-long rail siding extension that allows rail carriers to deliver 90-car unit trains to the port. The project also constructed a truck-to-rail intermodal facility in the vicinity of Connector Road to accommodate increasing truck traffic expected from the East End Bridge over the Ohio River.

The \$17,000,000 project increased the Port of Indiana – Jeffersonville’s freight handling capacity to help the Port meet increasing global demand for agricultural commodities and other bulk materials. The rail loops and intermodal facility increased the loading and unloading capacity of the port and enhanced multimodal freight connectivity, which improves long-term efficiency, reliability, and costs in the movement of goods.

6.6 Concepts from Stakeholder Outreach

Various project concepts were suggested by the participants of public and stakeholder outreach conducted for the Indiana State Rail Plan. This outreach was facilitated through Stakeholder Committee meetings held on October 27, 2020, January 26, 2021, and May 19, 2021; coordination with representatives of the state’s Class I, Class II, and Class III railroads; interviews with railroad freight shippers; and an on-line survey provided on the INDOT website. Outreach conducted as part of the Indiana State Rail Plan will be described in detail in Chapter 8.

Topics discussed include highway-rail grade crossings, state of good repair, intermodal and transload freight, and rail bottlenecks.

6.6.1 Highway-Rail Grade Crossings

Highway-rail grade crossing blockages and train horn noise are recurring complaints in local communities.

One stakeholder stated that the most frequently discussed rail topic among mayors in communities in and around Indianapolis is stopped trains on highway-rail grade crossings. Specifically, they are concerned about potential safety issues resulting from blocked roadways, and longer vehicle wait times because of longer trains. Stakeholders recognized the work that INDOT has done in the past to improve or eliminate locations where road traffic and rail traffic intersect and hoped to see more improvements in the future.

Another stakeholder encouraged INDOT to explore investments in grade-separated belt-line railroads around metropolitan regions to eliminate highway-rail grade crossing delays in downtown areas and densely populated neighborhoods on lines where track speeds are slow and highway-rail grade crossings are numerous.



6.6.2 State of Good Repair

Critical investments to improve short line infrastructure include:

- Upgrading track and bridges to accommodate today's industry standard 286,000-lb. freight cars
- Upgrading track and bridges to increase track speeds and improve transit times of freight shipments
- Maintaining track and bridge structures in a state of good repair; the ability to move heavy goods over a bridge network was especially important
- Adding or lengthening sidings, yard tracks, and other infrastructure to accommodate longer train lengths and the expanded use of unit trains

Key areas where INDOT support could make a difference include:

- Restoration or reconstruction of out of service rail lines to provide more access options or establish dual-railroad access for shippers and short lines. One particular investment that was identified as an immediate need was the reconstruction and restoration of service on 14 miles of rail line between Brighthurst and Frankfort, which would improve market competitiveness for existing shippers in north-central Indiana by providing dual-railroad access and also would help attract additional business to local rail lines in the region.
- Investments to preserve rail lines in Indiana for rail freight transportation and not conversion to trails or other non-freight rail uses.

One suggested policy initiative from the stakeholder outreach was to increase funds available for short line improvements, both to maintain a state-of-good-repair and to improve rail lines to handle heavier rail cars, longer trains lengths, and higher track speeds on the Indiana rail network.

6.6.3 Intermodal Terminals and Transload Facilities

Investments that leverage Indiana's hub environment were identified as important. Expanding the capacity and availability of rail-truck intermodal ramps and transload terminals would provide more opportunities for Indiana businesses to use rail for long-haul moves and trucks for first-mile and last-mile transportation, enabling rail to become an extension of the highway infrastructure.

6.6.4 Rail Bottlenecks

Investing in additional rail capacity at locations where current operations are experiencing constraints would benefit Indiana shippers. The top two locations identified as operational chokepoints that could benefit from additional investment are Chicago and Cincinnati. While these two major rail hubs lie outside of Indiana, they are bottlenecks that limit railroads' ability to provide Indiana shippers timely service. Improving these bottleneck areas will improve freight rail service both for Indiana and for surrounding states.



6.7 Planned and Proposed Investments

6.7.1 Class I Railroad Projects

As private entities, Class I railroad companies must fund the cost of equipment acquisition (that is, locomotives and railcars) and infrastructure improvements aimed at renewing, upgrading, or expanding the state rail network (that is, rail, ties, bridges, and signal systems). Railroads rely on a regulatory framework that provides sufficient return on investment as a means to accommodate these capital expenditures. Funding levels for capital programs can vary from year to year owing to fluctuations in traffic volumes, overall economic trends, and other considerations.

The Class I railroads have continued to invest heavily in their networks during the last decade in order to solve ongoing factors constraining the capacity, efficiency, and velocity of the high volumes of through traffic in Indiana; to eliminate or mitigate operational chokepoints; to handle various upgrades associated with maintenance and safety (including implementation of federally mandated Positive Train Control (PTC) systems, which reduce the likelihood of train over-speed incidents and collisions between trains); to implement various other technologies that improve the safety, economic efficiency, and environmental sustainability of railroad operations generally; and to accommodate routine infrastructure renewal.

Funds are budgeted by the Class I railroads each year to facilitate ongoing capital investment in the state’s rail network. System-wide capital expenditure budgets are reported by the Class I railroad annually and may or may not identify specific rail projects by state or their estimated capital cost. Where information was available, state-level investments by Class I railroads CSX Transportation and Norfolk Southern have been listed in Table 6-3 and Table 6-4 respectively.

Table 6-3 – CSX Transportation (CSX) Planned Improvements

Project Type	Project Description
Grade Separation	Dyer, IN – Grade separate highway-rail grade crossing 341140T of US Route 30 and CSX main & siding @ milepost 00Q 29.38
Grade Separation	Gary, IN – improve roadway clearances for Tennessee Street undergrade
Grade Separation	Gary, IN – improve roadway clearances for Buchanan Street undergrade bridge
Grade Separation	Portage, IN – Close Samuelson Road undergrade bridge



Project Type	Project Description
Capacity	Wellsboro, IN – build the southeast connection track between CSX Garrett Sub and CN South Bend Sub
Grade Crossing	Monon, IN - Grade separate highway-rail grade crossing 341246N of W. State Route 16 and CSX main & siding @ milepost 00Q87.13
Rail Relocation	Monon, IN – build an alternate 60 mph alignment southwest of town
State of Good Repair	Battleground, IN – replace superstructure of bridge 00Q 115.70 over the Wabash River
Rail Relocation	Lafayette, IN – shift main track to west side of yard
Grade Separation	Avon, IN – close, fill-in and redirect traffic from Bridgeport Road undergrade crossing
Grade Separation	Avon, IN – Replace current South Raceway Road undergrade double track bridge
Grade Separation	Indianapolis, IN – improve roadway clearances for New York Street undergrade bridge
Grade Separation	Indianapolis, IN – improve roadway clearances for Pleasant Run Boulevard undergrade bridge
Grade Separation	Indianapolis, IN – improve roadway clearances for Sherman Drive undergrade bridge
Grade Separation	Connersville, IN – improve roadway clearances for Western Avenue undergrade bridge
State of Good Repair	Connersville, IN – replace superstructure of bridge BD 66.9 over the Whitewater River



Table 6-4 – Norfolk Southern (NS) Planned Improvements

Project Type	Project Description
Capacity	Montpelier, IN – 1500’ siding extension with signal upgrades. The new siding will accommodate longer trains and allow for greater network fluidity.

6.7.2 Class II and Class III Railroad Projects

Class II (regional) and Class III (short line) railroads generally face a different set of challenges meeting their needs than the Class I railroads do, since they do not often possess the capital and technical resources, operating capacity and flexibility, or modern infrastructure of the larger Class I railroads.

Class II and Class III railroads typically rely upon private funding, public funding, or some combination of these sources to cover the capital cost of equipment acquisition and general infrastructure improvements.

Class II and Class III railroads were further queried during the stakeholder outreach process undertaken for the Indiana State Rail Plan about the specific challenges they face now and for the future in terms of capacity constraints, infrastructure needs and upgrades, railroad regulation, capital funding needs, and strategies for mitigating climate change adaptation.

Where information was available, planned and proposed investments by Class II and Class III railroads are listed in Table 6-5 through Table 6-27.

Table 6-5 – Indiana Rail Road Company (INRD) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Rebuild 3 bridges in Johnson, Brown and Monroe County	\$3,000,000
State of Good Repair	Install 15,000 ties between Elnora and Burns City, Indiana	\$2,500,000
State of Good Repair	Install new rail in curves in Monroe County	\$800,000
State of Good Repair	Replace 12 bridges and repair 3 bridges in various Indiana counties	\$13,500,000



Project Type	Project Description	Estimated Capital Cost
Intermodal	Expand Senate Avenue intermodal terminal in Indianapolis. Currently there is inadequate parking capacity at the terminal to support volume growth	\$6,000,000
State of Good Repair	Chicago Subdivision tie replacement project	\$2,500,000
State of Good Repair	Indianapolis Subdivision tie replacement project	\$5,000,000

Table 6-6 – Bee Line Railroad (BLRR) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
Capacity	Rebuild siding in Tab, IN to allow switching for train loading at Stewart	\$100,000
Capacity	KBSR West Lafayette siding extension to allow train switching at KBSR interchange	\$900,000
Capacity	Acquire main line track in Stewart, IN to extend ownership of track 1/2 mile south	\$250,000

Table 6-7 – Big Four Terminal Railroad (BFTR) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
Capacity	Double end pole track to improve operating efficiency for interchange	\$56,750



Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Acquire approximately 6,860 feet of NS track and rehabilitate bridge at MP 5.02 to prevent abandonment between Beesons and Milton	\$326,455
State of Good Repair	Rehabilitate bridge at MP 66.6	\$59,500
Commercial Development	Reinstall in-plant tracks at Visteon to allow shipping from the plant	\$61,760
State of Good Repair	Replace ties and ballast between MP 0.0 and MP 6.75 to prepare the line for use	\$155,000
Capacity	Improve Connersville yard to handle multiple unit windmill component trains	\$138,000

Table 6-8 – Central Railroad of Indianapolis (CERA) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Ties - Marion sub	\$1,120,000
State of Good Repair	Rail - Marion sub	\$151,000
State of Good Repair	Signal Improvements	\$20,000
State of Good Repair	Bridge Improvements	\$250,000
State of Good Repair	Future Tie Replacement - Marion sub	\$700,000



Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Future Tie Replacement - Red Key Sub	\$1,200,000
State of Good Repair	Future Signal Maintenance (5yrs)	\$80,000
State of Good Repair	Future Bridge Maintenance (5yrs)	\$400,000

Table 6-9 – Chicago, Fort Wayne & Eastern Railroad (CFE) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Install CWR on Decatur Subdivision MP 72 to MP 87 to increase track speed, remove jointed rail, and increase safety	\$11,000,000
Equipment	Purchase special continuous welded rail train to allow efficient movement and distribution of new welded rail for short line and regional railroads	\$6,000,000

Table 6-10 – Central Indiana & Western Railroad (CIW) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
Capacity	CIW transload support siding to increase rail car capacity to support CI&W transloading	\$355,843
Capacity	CIW transload siding (INDOT Grant) to support new transload rail business	\$425,000



Project Type	Project Description	Estimated Capital Cost
State of Good Repair	CEIW Mainline Upgrade - Install 5,000 ties, install 4,500 tons of ballast, and surface 9 miles of track to upgrade entire mainline to 286K capacity	\$785,000
Capacity	2,250' of new support siding tracks and three new turnouts needed, including grading and drainage in Lapel, IN	\$592,500

Table 6-11 – Madison Railroad (CMPA) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Maintain and restore Vernon Arch in Vernon, IN	\$100,000
State of Good Repair	JPG Track Maintenance in Madison, IN	\$140,000
State of Good Repair	Replace North Muscatatuck Bridge in Vernon, IN	\$2,500,000
State of Good Repair	JPG Crossing Replacements in Jefferson & Jennings Counties	\$500,000
State of Good Repair	Mainline Crossing Replacements in Jefferson & Jennings Counties	\$100,000
Commercial Development	Transload Site in Madison, IN	\$5,000,000
State of Good Repair	Switch Upgrades in North Vernon, IN	\$240,000



Table 6-12 – Connersville and New Castle Railroad (C&NC/CNUR) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Rehabilitate siding in New Castle to improve local switching operation and save crew time	\$33,920
Capacity	Re-install passing track at New Lisbon to improve operational flexibility for two or more trains on the track at a time and over the road switching capabilities	\$208,940

Table 6-13 – Dubois County Railroad (DCRR) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Track improvements to raise track classification and weight capacity	TBD

Table 6-14 – Evansville Western Railway (EVWR) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Tie, ballast, and surface program to maintain surface, gauge, and geometry	\$1,000,000
State of Good Repair	Bridge rehabilitation at MP 349.2 to maintain line integrity	\$3,500,000
State of Good Repair	Bridge rehabilitation at MP 339.5 to maintain line integrity	\$3,500,000



Table 6-15 – Elkhart and Western Railroad (EWR) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
Capacity	Capacity Upgrade in Elkhart to address capacity and efficiency challenges, allow existing rail customers to increase volume and new customers to come online, create jobs and economic vitality in the region; reduce congestion; and reduce bottlenecks and blocked crossings	\$4,000,000

Table 6-16 – Grand Elk Railroad (GDLK) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
Grade Crossing	Division Street Crossing Repairs (Submitted for Grant Award)	TBD

Table 6-17 – Hoosier Southern Railroad (HOS) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
Grade Crossing	Replace two highway-rail grade crossings to increase safety and reduce maintenance costs	\$90,000
State of Good Repair	Upgrade 0.3 miles of 75# rail with 115# rail to ensure 286K capacity is maintained, reduce maintenance costs, and reduce risk of derailments	\$135,000
State of Good Repair	Replace 1,500 ties and surface track to ensure 286K capacity is maintained, reduce maintenance costs, and reduce risk of derailments	\$230,000



Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Replacement of bridge at MP 8.1 to reduce maintenance costs, increase maximum allowable gross weight from 263K to 286K, and reduce the risk of structural failure	\$4,935,865
State of Good Repair	Replacement of bridge at MP 11.7 to reduce maintenance costs, increase maximum allowable gross weight from 263K to 286K, and reduce the risk of structural failure	\$715,345
Grade Crossing	Replace remaining timber/asphalt surfaces at highway-rail grade crossings with modern reinforced concrete panels.	\$300,000
State of Good Repair	Replace 75# rail in all curves with 115# rail to ensure 286K capacity is maintained, reduce maintenance costs, and reduce risk of derailments	\$1,847,600
State of Good Repair	Replace 75# rail with 115# rail to ensure 286K capacity is maintained, reduce maintenance costs, and reduce risk of derailments	\$4,750,000
Capacity	Construct new siding at Troy yard to provide additional storage capacity	\$750,000

Table 6-18 – Indiana Eastern Railroad (IERR) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
Commercial Development	Cottage Grove Transload Project. Includes 2,000 ft track extension and transload facility	\$750,000
Commercial Development	Boston Transload Facility	\$1,200,000



Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Track rehabilitation MP 47 to MP 51	\$600,000
State of Good Repair	Cottage Grove Spur Track and Building	\$150,000
Capacity	Cottage Grove 4,000 ft yard track construction to facilitate interchange with CSX and support new traffic	\$800,000

Table 6-19 – Indiana Harbor Belt Railroad (IHB) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Track maintenance on the Gibson line – includes tie replacement and turnout replacement at multiple locations to provide for continued safe operation	\$3,300,000

Table 6-20 – Indiana Northeastern Railroad (IN) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Crosstie rehabilitation to provide dependable service to existing and potential future customers	\$580,000
Grade Crossing	Highway-rail grade crossing surface improvement at State Road 427 and signal upgrade at Old 27.	\$135,000
State of Good Repair	Pile cap replacement for Helmer bridge to provide for continued safe operation	\$10,000
State of Good Repair	Klink Trucking pit work to maintain safety for employees	\$3,500



Project Type	Project Description	Estimated Capital Cost
Capacity	Hudson shop – track extension to provide more space for locomotive and equipment repair	\$30,000

Table 6-21 – Indiana Southwestern Railway (ISW) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Bridge and Track Upgrades in Evansville to accommodate 286K rail traffic over the bridge located at MP 243.60 and install a sufficient number of crossties to take the main track from FRA Excepted status to FRA Class 1.	\$158,340

Table 6-22 – Louisville and Indiana Railroad (LIRC) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Replace ties and rail on Columbus Industrial Lead to maintain service to existing customers	TBD
State of Good Repair	Replace ties and rail on Dutch Lane Industrial Lead to maintain service to existing customers	TBD
Commercial Development	New rail-served customer facility for Redball Recycling in Jeffersonville, IN	\$871,000
Commercial Development	Meadowlawn Industrial Park in Edinburgh, IN	TBD
Commercial Development	Force Construction multi-use site in Walesboro, IN	TBD



Project Type	Project Description	Estimated Capital Cost
Commercial Development	New rail-served customer facility for Mac Construction in Jeffersonville, IN	TBD

Table 6-23 – Louisville, New Albany, and Corydon Railroad (LNAL) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	2021 Annual Tie Replacement near Corydon, IN to improve track conditions and support 286K loads	\$56,250

Table 6-24 – MG Rail (MGR) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Ongoing infrastructure maintenance and improvements to continue to offer safe reliable rail service to Ports of Indiana’s existing and future customers	\$250,000
State of Good Repair	Rail, tie, and ballast replacement work at the Ports of Indiana Jeffersonville Terminal to proactively take steps to safely handle heavier car weights and create new business opportunities	\$357,055
Grade Crossing	Eliminate potential road hazards by replacing grade crossing surfaces	\$40,000



Table 6-25 – Napoleon, Defiance and Western Railway (NDW) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	CRISI project to make upgrades to improve safety and customer service	\$8,224,452

Table 6-26 – Ohio Valley Railroad (OVR) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Upgrade yard tracks to reduce risk of derailments	\$500,000

Table 6-27 – Wabash Central Railway (WBCR) Capital Projects and Infrastructure Needs

Project Type	Project Description	Estimated Capital Cost
State of Good Repair	Upgrade Bridge 122.73 re-deck and guard planks to improve to 286 GWR capacity & allow increased traffic	\$69,550
State of Good Repair	Upgrade Trestle # 121.85 stringers to improve to 286 GWR capacity & allow increased traffic	\$76,695
State of Good Repair	Upgrade Trestle # 121.43 Stringers to improve to 286 GWR capacity & allow increased traffic	\$38,515
State of Good Repair	Upgrade Trestle # 121.22 stringers to improve to 286 GWR capacity & allow increased traffic	\$39,650
Commercial Development	Install new spur at MP 125.25 to increase rail traffic - new customer - Matalco	\$216,475



Project Type	Project Description	Estimated Capital Cost
Commercial Development	Install new spur track at MP 123.9 - 375' spur to increase rail traffic - new customer - IQ Fibers	\$172,840
Capacity	Construct new east side engine track MP 122.79 to improve interchange efficiency	\$110,980
Commercial Development	Construct new access track to VBV Ethanol plant in Bluffton to increase access for local businesses	\$295,500

6.7.2.1 Industrial Rail Service Fund (IRSF)

The Industrial Rail Service Fund (I.C. 8-3-1.7) was established in 1982 to assist in funding for the rehabilitation of the smaller railroads' infrastructure. Eligible railroads are Class II & III freight railroads and Port Authorities. The fund has been maintained through sales tax revenue (0.031%) and repayment of previous IRSF loans. The IRSF program is for the upgrade of the Class II & III railroad physical plant to help maintain and increase business shipping levels on the rail line, and to assist with funding needed for track infrastructure improvements related to new business development on the line.

Each application is reviewed and independently scored by each member of a review team using the IRSF grant evaluation criteria. Applications are then ranked based on their cumulative score. Funds are then awarded to the top-ranked applications until available funding is exhausted.

For FY21, the maximum grant award was \$250,000. IRSF projects funded in FY21 are described in Table 6-28.



Table 6-28 – Industrial Rail Service Fund (IRSF) Funded Projects FY21

Railroad	Project Description	Awarded Amount:
Indiana Southwestern Railway (ISW)	Bridge repair at MP 243.60 in Vanderburgh County replacing bridge deck ties, defective piling, removal of debris, and additional stringer to increase bridge capacity to 286K. This project also includes the replacement of defective cross-ties along the ISW mainline, as well.	\$110,838.00
Indiana Rail Road Company (INRD)	Replacement of 3 timber bridges at RR mileposts 9.6, 38.0, and 45.5 Section 1 on the Indianapolis Subdivision with a concrete girder or steel I-beam superstructure on top of pre-cast pier caps welded to driven H-Piles. The project will replace an estimated 252 Track Feet of Timber railroad bridges with a robust concrete/steel design with capacity to handle the 286K axle loading and meet the requirements for FRA Class 3 track.	\$250,000.00
Louisville & Indiana Railroad (LIRC)	The installation of a new 136# switch for the recently purchased multi-modal capable facility adjacent to Louisville & Indiana's mainline in Jeffersonville, IN. This work will provide Red Ball Recycling direct rail access to multiple markets for their operations.	\$171,825.30
Central Indiana and Western Railroad (CEIW)	Construct new rail siding to support a rail transload siding constructed in FY2020. The support siding will be located west of Raible Ave. on railroad owned right-of-way. The support siding is needed due to the types of our transload commodities being more numerous than originally anticipated.	\$175,000.00
Chicago, Ft. Wayne & Eastern Railroad (CFE)	The installation of 9,500 linear feet of continuous welded rail (CWR). Upgrading jointed 1940's 131# rail to 136RE continuous welded rail, along with tie plates, anchors and spikes in Lake County.	\$250,000.00
Chesapeake and Indiana Railroad (CKIN)	CKIN Railroad intends to construct the Thomaston Crossover Track, connecting its Thomaston, IN interchange track with Norfolk Southern to the CKIN mainline at the same location. The Thomaston Crossover Track would consist of two turnouts (switches), connected by a short stretch of track between them. Basic components would include sub-grade base, ballast, ties, switch and rail components, and hardware such as spikes, tie plates, joint bars, and anchors as deemed necessary.	\$137,500.00
Indiana Northeastern Railroad (IN)	Tie and ballast replacement from MP20.02 to MP38.72 on INERR mainline on the Fremont Line from Steubenville, IN to Indiana/Michigan Line. Project consists of replacing approximately 10% to total ties on the line. Work will include replacing a few switch ties as needed between 11 turnouts, additional ballast where necessary, tighten or replace track bolts where needed, and broken rail repairs.	\$249,898.00



Railroad	Project Description	Awarded Amount:
Central Railroad of Indiana (CIND)	The Central Railroad of Indiana (CIND) project will result in the rehabilitation of the CIND Rail Line and Lowe's Rail Line to FRA Class 1 Track Safety Standards between MP 64.43 - MP 64.8 and the replacement of the SR-46 highway-rail grade crossing. In total, this project would include signal repair at the SR-46 highway-rail grade crossing, the installation of 545 ties, shoulder repair, 200' of ditching, 800' of brushcutting, 5,280' of surfacing, 212' of new rail installation and joint bar replacement within this 0.37 miles of track.	\$250,000.00
Indian Creek Railroad Co. (INCR)	Construct crossover and spur track to enhance public safety by eliminating multiple shoving moves for 85 car trains on 4.5 miles of track and across 9 public highway-rail grade crossings	\$172,129.74
Hoosier Southern Railroad (HOS)	Tie/Ballast Replacement and Tamping on Mainline in Perry & Spencer counties. Installing 1,500 cross ties and surfacing of approximately 4 miles of track. Also includes rail replacement of 1600 track ft. to 115# rail in curves.	\$250,000.00
Indiana Eastern Railroad (IERR)	The proposed project is for tie replacement and surfacing of the IERR main line between MP 47 (SR 44) and MP 51 (Kitchel) in Union County. Crossties in this section have deteriorated to the point that 10 mph slow speed orders are in place. The project would replace 5,000 crossties over this section followed by surfacing.	\$250,000.00
MG Railroad (MGR)	Rail, Tie, and Ballast replacement project at the Ports of Indiana Terminal in Clark County, IN. Project Scope of Work consists of general track renewal work to include tamping & regulating new ballast, installing 1,100 cross ties, and adding @ 1,500 tons of ballast. One high traffic rail area along the Main line coming into the Port will have a section of mud fouled ballast removed and replaced. Lastly, will upgrade 1,600 Track Ft. of 105 DY rail to heavier 115 RE rail along a critical traffic portion of the mainline along the riverfront.	\$250,000.00

Source: INDOT

6.7.3 Rail User and Community Needs Project Inventory

Various project concepts were suggested by the participants of public and stakeholder outreach activities conducted for the Indiana State Rail Plan. Table 6-29 lists freight projects suggested by stakeholders, while Table 6-30 lists grade crossing, grade separation, and rail relocation projects.



Table 6-29 – Indiana Rail User and Community Needs Project Inventory – Freight Projects

Stakeholder	Project Type	Project Description	Estimated Project Cost
City of Auburn Port Authority	State of Good Repair	Upgrade track – Grandstaff Drive to 15 th Street	\$48,000
Conexus Indiana Logistics Council	Capacity	Wilson Siding - create new staging track for CN, CSX, NS RRs west of North Jackson Boulevard to facilitate rail movements in Porter	\$8,000,000
Conexus Indiana Logistics Council	Commercial Development	Kingsbury Multimodal. Extend rail lines into Kingsbury Industrial Park that will provide a niche multimodal rail service yard for the distribution of cold storage commodities from Kingsbury, Indiana, to Tampa Bay, Florida via CSX Rail.	\$25,600,000
Conexus Indiana Logistics Council	Commercial Development	CSX rail transfer station at CR 200S in Montgomery County	\$20,000,000
Conexus Indiana Logistics Council	Capacity	Wilson Siding Create new staging track for CN, CSX, NS RRs west of North Jackson Boulevard to facility rail movements in Porter.	\$8,000,000
Conexus Indiana Logistics Council	Commercial Development	CSX Install and repair RR ties from Ft Branch to Poseyville Megasite	\$3,500,000
Conexus Indiana Logistics Council	Commercial Development	Bedford Rail Project (purchase rail property from Bedford to Mitchell from CSX) to create inland port	\$1,000,000
Conexus Indiana Logistics Council	Commercial Development	Extend CSX tracks to the Ameriplex industrial area north of I-94 near SR 249 in Portage	Unknown
Conexus Indiana Logistics Council	Commercial Development	Develop NS transloading facility at the former Dana Corp site at Williamsburg Pike	\$6,000,000



Stakeholder	Project Type	Project Description	Estimated Project Cost
Conexus Indiana Logistics Council	Commercial Development	Norfolk Southern Hartford City Industry Rail Spurs - Build new rail spurs along NS line near US 26.	\$3,000,000
Conexus Indiana Logistics Council	Commercial Development	NS RR new rail spur @ Knox Industrial Park - Extend the NS tracks throughout the Knox Industrial Park	\$2,000,000
Conexus Indiana Logistics Council	Commercial Development	Midwest Industrial Park rail spur - Extend NS tracks throughout Midwest Industrial Park	\$300,000
Conexus Indiana Logistics Council	Commercial Development	Northwind Crossing Rail Spur - Design and build rail spur from NS tracks south of West 61st Avenue to the Northwind Crossing industrial area in Hobart	Unknown
Conexus Indiana Logistics Council	Intermodal	CSX Newport Rail / Truck Intermodal Facility (NW of US 41 & Baseline Rd),	\$58,500,000
Conexus Indiana Logistics Council	Intermodal	NS Convert Triple Crown yard in Fort Wayne to accommodate COFC service from Port of Virginia in Norfolk, VA	\$22,700,000
Conexus Indiana Logistics Council	State of Good Repair	Upgrade CSX bridges thru Lake & LaPorte to 286k lbs. standard	\$10,000,000
Ports of Indiana	Commercial Development	CSX Rail access to port facility in Lawrenceburg	Unknown
Ports of Indiana	Commercial Development	NS Construct rail and bulk transload facility at Ports of Indiana in Porter County	\$20,000,000
St. Joseph County	Commercial Development	Build rail spur or other access to CSX and NS rail lines from location near Walkerton	Unknown



Stakeholder	Project Type	Project Description	Estimated Project Cost
St. Joseph County	Commercial Development	Build a loop track or other facility to enable unit trains in an area near New Carlisle	Unknown
St. Joseph County	Commercial Development	Build rail spur or other access to CSX and NS rail lines from location near Walkerton	Unknown

Table 6-30 – Indiana Rail User and Community Needs Project Inventory – Grade Crossing, Grade Separation, and Rail Relocation Projects

Stakeholder	Project Type	Project Description	Estimated Project Cost
Conexus Indiana Logistics Council	Grade Crossing	Highway-rail grade crossing improvements S of Porter Co Airport (Montdale Dr and CR 400E, CFE & NS RRs)	\$16,600,000
Conexus Indiana Logistics Council	Grade Separation	NS grade separation: Bailey Station Road in Chesteron, IN (with CN, CSX)	\$10,000,000
Conexus Indiana Logistics Council	Grade Separation	NS grade separation: Warsaw, IN	\$10,000,000
Conexus Indiana Logistics Council	Grade Separation	CN Construct Bailey Station Rd grade separations in Chesterton (with NS and CSX)	\$10,000,000
Conexus Indiana Logistics Council	Rail Relocation	CSX Bypass around Evansville (new ties W side to N side of Evansville)	\$38,000,000
Conexus Indiana Logistics Council	Rail Relocation	Youngstown CSX Switchyard - Move CSX yard from Terre Haute to south of Terre Haute near Youngstown	\$15,000,000



Stakeholder	Project Type	Project Description	Estimated Project Cost
Hoosier Heritage Port Authority	Grade Crossing	Resurface SR 19 crossing in Atlanta	\$75,000
Hoosier Heritage Port Authority	Grade Crossing	Signal at 196th Street crossing	\$50,000
Hoosier Heritage Port Authority	Grade Crossing	Signal at 206th Street crossing	\$50,000
Indianapolis Metropolitan Planning Organization	Grade Crossing	Install highway-rail grade crossing signal preemption with road intersection at Kentucky Ave and Ameriplex Pkwy with ISRR, DOT #539296U	\$355,721
Indianapolis Metropolitan Planning Organization	Grade Separation	Grade separate the highway-rail grade crossing of Co. Rd. 900 E. and E. US Hwy 136 from the CSX Railroad. DOT #543008E	\$8,830,000
Indianapolis Metropolitan Planning Organization	Grade Separation	Construction of a south east bypass of the Town of Whiteland, includes an overpass of the Louisville & Indiana Rail line.	\$100,000,000
Northwestern Indiana Regional Planning Commission (NIRPC)	Grade Separation	CSX Grade Separation - Euclid Road in East Chicago, DOT #163639F	\$11,900,000
Northwestern Indiana Regional Planning Commission (NIRPC)	Grade Separation	CSX Grade Separation - SR 149 in Porter County	\$5,900,000



Stakeholder	Project Type	Project Description	Estimated Project Cost
Northwestern Indiana Regional Planning Commission (NIRPC)	Grade Separation	NS Grade separation: Calumet Avenue in Hammond, IN	\$19,700,000
Northwestern Indiana Regional Planning Commission (NIRPC)	Grade Separation	CN Grade Separation - SR 312 in East Chicago	\$15,300,000
Northwestern Indiana Regional Planning Commission (NIRPC)	Grade Separation	CN Grade Separation - 5th Avenue in Gary	\$12,600,000



7 Indiana's Rail Service and Investment Program

This chapter contains a discussion of the state's rail vision, goals and objectives, program coordination, passenger and freight rail project benefits, planned investments, and funding sources. The chapter concludes with tables highlighting the short term (1-4 year) and long term (5-20 year) proposed program of projects for Indiana's rail transportation network. The Rail Service and Investment Program (RSIP) addresses the specific projects, programs, policies, laws, and funding necessary to achieve the rail vision and describes the related financial and physical impacts of these proposed actions.

7.1 Vision

In Indiana, the rail industry plays a significant role in the movement of goods, commodities, and people and serves multiple industries and businesses to support economic development. The vision, goals, and objectives for this State Rail Plan consider the overall INDOT mission, vision, and goals and are aligned with relevant state planning documents (see Section 7.2).

7.1.1 Vision Statement

INDOT will promote, actively participate in, and advocate for improved accessibility, safety, reliability, and efficiency of the state's freight and passenger rail network with a goal of enhancing Indiana's economy and providing its citizens with equal opportunities, while stimulating the rail system to remain the most environmentally-friendly transportation mode.

INDOT will work with railroads and public port authorities; promote both freight and passenger rail services; and work with partner agencies at all organizational levels to plan rail network improvements - including intermodal strategies - to enhance domestic and global connectivity for Indiana.

INDOT will explore avenues to provide financial resources that support cost effective investments to help achieve freight, intercity passenger, and commuter rail network goals.

INDOT will foster a rail culture which allows for continuous improvement through innovation.

7.1.2 Goals and Objectives

Based upon the vision described above, goals and objectives as set forth in this State Rail Plan are listed in this section. Goals break down the vision into manageable pieces. Objectives provide the types of actions and policies that will be employed to achieve the goals.



7.1.2.1 GOAL: SAFETY

Help improve and promote the safety of the rail system, as well as raise public awareness of rail safety issues.

7.1.2.1.1 OBJECTIVES

- Eliminate as many rail-highway at-grade crossings as possible by 2025 through the Railroad Grade Crossing Fund
 - Work with railroads and local communities to close redundant crossings
 - Develop grade separated crossings where conditions warrant, when funding is available, and where practical
 - Reduce the number of accidents/incidents at rail-highway at-grade crossings
 - Reuse/Repurpose quad-gates and flashing light signals from closed crossings to improve other active highway-rail grade crossings
 - Work with local Emergency Management / First Responses to ensure response time, and clearance
- Improve safety at 100 high-priority highway-rail grade crossings by 2025 through the Railroad Grade Crossing Fund
 - Promote repair of grade crossing surfaces in poor condition
 - Improve sight lines and passive warning devices at crossings
 - Encourage communities and railroads to install other safety countermeasures where appropriate
- Continue support of Indiana Operation Lifesaver and promote awareness of safety hazards related to highway-rail grade crossings and trespassing on rail rights-of-way
- Support FRA's efforts to reduce roadway worker incidents

7.1.2.2 GOAL: ECONOMIC DEVELOPMENT

Support efforts to better connect Indiana with regional, national, and international markets through new or improved transportation service options.

7.1.2.2.1 OBJECTIVES

- Support practical efforts to better connect Indiana cities with global markets through improved intermodal rail container service
- Support efforts to expand rail service through transload facilities
 - Work with the Indiana Economic Development Corporation (IEDC) to create a dedicated program to stimulate new or upgraded transload facilities for agricultural use
 - Support adequate rail connections to Indiana's ports
- Promote the establishment or improvement of rail service at new or existing industrial sites



- Support passenger rail connections between regional economic centers
- Preserve and enhance existing rail corridors using existing state grant funds
- Support economic competitiveness by supporting infrastructure improvements that reduce freight transportation costs and more effectively connect Indiana with regional, national, and international markets
- Support adequate and reliable funding for rail systems from all sources: federal, state, local governments, and the private sector
- Identify additional federal, state, and private funding sources for rail projects and programs
- Support rail investments that contribute to a strong and diverse economy that creates jobs

7.1.2.3 GOAL: TRANSPORTATION EFFECTIVENESS

Reduce bottlenecks and maintain rail system in a state of good repair to improve the reliability and efficiency of railroad transportation, resulting in less congestion and fewer infrastructure repairs.

7.1.2.3.1 OBJECTIVES

- Use state and federal funds to support the maintenance of the rail network in a state of good repair, including improvements to railroad track and relevant structures such as bridges
- Work with neighboring states to continue to investigate options to address regional bottlenecks in the existing rail network for both freight and passenger rail traffic
- Support opportunities to improve the speed and frequency of both freight and passenger rail service where financially and economically feasible to do so
- Support optimal use of the Northern Indiana Commuter Transportation District's South Shore Line service and the West Lake Corridor extension, once operational
- Support system resiliency to various threats and risks, such as weather, cyberattacks, and terrorism

7.1.2.4 GOAL: QUALITY OF LIFE, ENVIRONMENTAL, AND SOCIAL RESPONSIBILITY

Improve accessibility for all to rail transportation and preserve rail as the most environmentally friendly transportation mode.

7.1.2.4.1 OBJECTIVES

- Support and encourage short line railroads and port authorities in their efforts to develop and implement sustainable plans for their futures
- Support investments that provide and enhance passenger rail access to underdeveloped areas
- Enhance multimodal connections for rail passengers by connecting train stations to:
 - Non-motorized modes of travel (i.e., trails, secure bicycle storage and repair facilities, bicycle paths, and pedestrian paths)
 - Public transportation (i.e., transit shelters, bus lines, dedicated bus lanes)
 - Private vehicles (i.e., park-and-ride, sheltered waiting facilities)



- Support infrastructure improvements that better connect people with job markets and critical services
- Educate shippers, industries, and citizens on the benefits of rail transportation compared to other modes by partnering with organizations that promote rail transport as environmentally friendly
- Encourage seamless connections between multiple transportation modes

7.1.2.5 GOAL: INNOVATION

Encourage Indiana's railroading practice to be as efficient as technology improvements will allow; so as to contribute as much as possible to the Indiana economy.

7.1.2.5.1 OBJECTIVES

- Associate with new technological research and development (R&D) committees through FRA and American Association of State Highway and Transportation Officials (AASHTO), to stay up to date on developments and support emerging technologies that assist in optimization of Indiana's rail system (e.g., big data, modeling, and automation)
- Deliver great government service:
 - Be responsive to the railroad industry for funding and information sharing
 - Provide rail information to the public and elected officials to inform decision-making
 - Provide opportunities for Hoosiers by improving the rail system's efficacy through focus on safety and efficiency

7.2 Program Coordination

The long-term rail vision included within this State Rail Plan has been coordinated with other planning efforts. It encompasses a vision, goals, and objectives consistent with those from INDOT's Long Range Transportation Plan (2018-2045 Transportation Needs Report)¹⁸¹ and the *Indiana Multimodal Freight Plan Update 2018*¹⁸², as well as the overall INDOT mission, vision, and goals and Governor Holcomb's "Five Key Pillars of State Improvement".¹⁸³

¹⁸¹ Indiana Department of Transportation, 2045 INDOT Long-Range Transportation Plan. Retrieved from: <https://www.in.gov/indot/3714.htm>

¹⁸² Indiana Department of Transportation, Freight webpage. Retrieved from: <https://www.in.gov/indot/multimodal/freight/>

¹⁸³ Indiana Department of Transportation, 5 Pillars: Next Level Indiana. Retrieved from: <https://www.in.gov/indot/3402.htm>



7.2.1 Neighboring State Rail Plans

Neighboring state rail plans were also reviewed to inform the development of this State Rail Plan. These include the Illinois State Rail Plan, and the State of Ohio Rail Plan. These rail plans identify regional passenger and freight rail initiatives that may involve or have some impact on Indiana. Neighboring state rail plans also provide context to help determine current trends and best practices.

7.2.1.1 Illinois State Rail Plan

The Illinois State Rail Plan Update supports improvements to upgrade the Chicago to Detroit corridor to high-speed rail standards.¹⁸⁴ This upgrade would improve both rail passenger and freight operations between Chicago and Detroit estimated at \$600 million to be financed from Federal and State sources. (The Michigan State Rail Plan more specifically supports the upgrade of the Chicago-Detroit-Pontiac corridor to 110 mph.) The Illinois plan also supports:

- Crossover projects between Chicago and Butler, Indiana
- A yard expansion, construction of crossovers, and upgraded sidings near Schneider, Indiana
- Replacement of eight timber trestle bridges on the Indiana Rail Road Company's Indianapolis Subdivision

7.2.1.2 State of Ohio Rail Plan

The most recent State of Ohio Rail Plan¹⁸⁵ identifies a shared Northern Indiana/Ohio passenger rail initiative by an MPO from Ohio and the Northeast Indiana Passenger Rail Association (NIPRA) to advance future passenger rail service between Chicago and Fort Wayne with an extension of service to Lima, Ohio as part of the larger Chicago-Columbus-Pittsburgh corridor.¹⁸⁶ The Chicago, Fort Wayne & Eastern Railroad and the Indiana & Ohio Railway also intend to improve speeds along their rail lines to accommodate double-stack container trains for service up to 40 miles per hour.

7.2.2 Multi-State Planning Efforts

Multi-state perspectives were also incorporated into this Rail Plan. Indiana has included input to this Rail Plan from multistate planning organizations, such as from metropolitan planning organizations (MPOs) that cross Indiana's borders into neighboring states. Indiana is also participating in the Federal Railroad Administration's (FRA) *Midwest Regional Rail Planning Study*, Midwest Interstate

¹⁸⁴ Illinois Department of Transportation, Illinois State Rail Plan. Retrieved from: https://idot.illinois.gov/Assets/uploads/files/Transportation-System/Fact-Sheets/Rail%20Plan%20Report_12_28_2017_FULL_Final_FRA.pdf

¹⁸⁵ Ohio Rail Development Commission, State of Ohio Rail Plan, January 2019. Retrieved from: <https://www.rail.ohio.gov/static/Documents/State+of+Ohio+Rail+Plan+Final.pdf>

¹⁸⁶ Northern Indiana Passenger Rail Association, Pre-NEPA Planning webpage. Retrieved from: <http://niprarail.org/pre-nepa>



Passenger Rail Commission, Midwest Regional Rail Initiative, States for Passenger Rail Coalition, and the Mid-America Freight Coalition.

In addition to the need to coordinate Indiana's 2021 Rail Plan with neighboring states and the national freight network, Indiana will also coordinate as necessary with the United States Military Surface Deployment and Distribution Command's Transportation Engineering Agency, which oversees the federal National Strategic Rail Corridor Network (STRACNET). STRACNET and the rail transportation's role in defining a national defense transportation network are discussed in Chapter 2, Indiana's Existing Rail System.

7.3 Rail Agencies

7.3.1 State Agencies

For the purposes of this State Rail Plan, INDOT serves as both the State Rail Transportation Authority and State Rail Plan Approval Authority, which are responsible for preparing and approving this State Rail Plan, respectively. Designation of these authorities is required for the FRA's state rail planning purposes.

Freight and intercity passenger rail programs authorized under Indiana's legislative authority are administered by the INDOT Rail Programs Office, which is dedicated to preserving and developing freight and passenger corridors throughout the state of Indiana. The Rail Programs Office administers the Indiana Industrial Rail Service Fund (IRSF) (I.C. 8-3-1.7) and the Railroad Grade Crossing Fund (RRGCF) (I.C. 8-6-7.7-6.1) programs, as well as enforces Indiana State Law regarding highway-rail grade crossings. The Rail Programs Office performs rail planning and administers rail-related federal grants for which INDOT is the grantee.

State financial assistance and involvement in the Northern Indiana Commuter Transportation (NICTD) commuter rail service is administered through the INDOT Office of Transit, which provides financial and technical assistance to transit systems across the state and administers millions of dollars in state and federal funds through grant programs. Both offices are part of INDOT's Multimodal Division.

Several other offices within INDOT affect rail in Indiana as well. The Rail-Highway Crossings Program (commonly referred to as Section 130) is administered under the INDOT Office of Traffic Safety, which is part of the INDOT Division of Traffic Engineering. The Section 130 projects are managed by the INDOT Local Public Agency Programs. INDOT receives approximately \$7.4 million annually for its Section 130 Rail-Highway Crossings Program.

The INDOT Utilities and Railroads Division coordinates with utility or railroad companies wherever INDOT roadway projects or railroad improvement projects require project coordination and an agreement/contract between the two parties to complete the construction, such as grade crossing projects undertaken with Local Trax or Section 130 funding.



In addition to INDOT, several other state agencies play a role in funding rail improvements. The Indiana Economic Development Corporation provides the Industrial Development Grant Fund, which assists municipalities and other entities with infrastructure improvements needed to serve proposed project sites. Among the infrastructure projects eligible for funding are the construction, extension, or completion of rail spurs and sidings. Potential projects are evaluated by, among other criteria, the extent to which they attract investment and employment to Indiana communities.

The Ports of Indiana was created by the Indiana General Assembly in 1961 to promote the agricultural, industrial, and commercial development of the state and to provide for the general welfare by the construction and operation, in cooperation with the federal government, or otherwise, of a modern port. It is a quasi-governmental entity. The Ports of Indiana owns and operates the port facilities and related properties at Burns Harbor, Jeffersonville, and Mount Vernon. Ports of Indiana is self-supporting in terms of operating funds and invests in rail at the port facilities.

7.3.2 Local and Regional Agencies

A range of local and regional government entities can support rail in Indiana, both through their own funding sources and by applying for federal funding. A few organizations within Indiana play a coordinating role for transportation issues, including rail.

7.3.2.1 Metropolitan Planning Organizations

Metropolitan Planning Organizations (MPOs) play a coordinating role. There are 14 MPOs in Indiana. MPOs are required for metropolitan areas with over 50,000 inhabitants in order to receive certain types of federal highway and mass transit funding. MPOs prepare 20-year transportation plans and three- to five-year transportation improvement plans, as well as provide technical assistance for project planning and implementation. Through their planning processes, they cooperate with state and local jurisdictions, and rail projects are included among the projects with which MPOs may be involved. Several Indiana MPOs are responsible for jurisdictions that span across the state borders to towns and counties in adjoining states.

7.3.2.2 Regional Councils

Fifteen regional councils are in Indiana, covering most of the state. The Indiana legislature created these regional councils to perform economic development planning with funding from the U.S. Department of Commerce. Given rail's significant role in economic development, rail can be relevant to these organizations' activities.

7.3.2.3 Transportation Districts

The Indiana legislature created NICTD in 1980. It is governed by a Board of Trustees, with one board member from each of the Indiana counties served by the South Shore appointed by the Governor. The INDOT Commissioner is the board chair.



7.3.3 Multi-State Organizations

Midwest Interstate Passenger Rail Commission

In 2000, the Midwest Interstate Passenger Rail Commission (MIPRC) formed to advocate for regional passenger rail improvements. The commission comprises state leaders in Indiana and across the other Midwestern states of Illinois, Kansas, Michigan, Minnesota, Missouri, North Dakota, and Wisconsin. Nebraska, Iowa, Ohio and South Dakota are eligible to join, however they are not currently members. Each state has a private sector delegate, also appointed by the governor. Indiana legislators serve on the commission as well as the governor's designee, the INDOT Commissioner who delegates the role to the Director of INDOT's Multimodal Division.

MIPRC leads a variety of activities to inform stakeholders, the public, and elected officials on current and future passenger rail projects in the region. This includes their annual meeting, which features site tours, presentations from U.S. Department of Transportation (USDOT) officials in Washington, D.C. involved in the development and funding of intercity passenger rail, and case studies of successful passenger rail implementation and expansion projects around the United States.

MIPRC also fulfills a role in advocating for existing Amtrak and other passenger rail services. MIPRC is actively involved in keeping elected officials informed of state and federal passenger rail policies and legislation to promote a more efficient regional passenger rail network for the Midwest. MIPRC members made annual visits to Washington, D.C. in 2018 and 2019 to meet with members of Congress that hold positions on the House and Senate transportation committees, as well as officials at USDOT, FRA, and Amtrak.

States for Passenger Rail Coalition

INDOT is a member of the States for Passenger Rail Coalition. The Coalition's mission is to promote the development, implementation, and expansion of intercity passenger rail services with involvement and support from state governments. The coalition is comprised of representatives from state and regional departments of transportation and passenger rail authorities. The coalition provides a voice for state governments that support passenger rail and is recognized as the "go to" organization for national policy development by federal agencies and congressional staff (for committees of jurisdiction).

State Amtrak Intercity Passenger Rail Committee

The Fixing America's Surface Transportation Act of 2015 (the FAST Act) authorized the State Amtrak Intercity Passenger Rail Committee, which is composed of state intercity passenger rail service sponsors, Amtrak, and the FRA. It provides a forum for resolving issues and progressing intercity passenger rail services. The committee is important to timely resolution of cost-sharing issues, and as a forum for policy review and coordination among the parties. INDOT is still represented on this committee as an Associate member, despite no longer offering the *Hoosier State* service.



7.4 Program Effects

Appearing in Section 7.7 of this chapter is INDOT's proposed program of future capital projects and studies. This Rail Service and Investment Program (RSIP) includes both short-term (1 to 4 years) and long-term (5 to 20 years) projects and studies. The RSIP was developed from a list of potential future passenger and freight rail projects and studies identified during stakeholder outreach, railroad coordination, and INDOT internal coordination undertaken during the development of the State Rail Plan.

The RSIP contains freight and passenger rail projects that are anticipated to offer substantial public benefits. Passenger rail projects listed in the RSIP serve to preserve and improve existing passenger rail service, protect the safety of passengers, and explore the feasibility of potential passenger rail service expansion. The freight projects listed in the RSIP largely serve to protect existing freight service provided by the Class II and Class III railroads (regional and short line railroads respectively) operating in the state through the reduction or elimination of major bottlenecks and improvements of rail capacity, safety, and efficiency.

As the majority of intercity rail passengers are diverted from the automobile, passenger rail improvement and expansion will result in a more extensive and diverse intercity transportation network, enhanced mobility, increased tourism, access to job opportunities, increased energy efficiency, and reduced fuel consumption.

For freight rail improvements, the benefits involve increased transportation competition and supply chain resiliency resulting in lower cost to shippers, less highway congestion and damage, and reduced environmental and energy impacts. By their nature, highway-rail grade crossing improvement projects and other rail-related infrastructure improvements also increase transportation safety by reducing risks posed by aging materials and obsolete technologies.

7.5 Passenger Element

7.5.1 Passenger Rail Project Impact Analysis

Most significant rail intercity or commuter rail projects have a positive impact on overall rail passenger ridership, rail passenger miles traveled, modal diversion from highway and air, and increased rail passenger revenues or reduced operating costs.

Indiana currently has a limited amount of control over the intercity passenger rail operations within the state. Intercity passenger rail service in Indiana is provided by Amtrak and consists of one multi-state regional corridor and three long-distance services. These operations serve only a portion of Indiana's total population and service area. This limitation also reduces the state's ability to significantly affect positive impacts on other modes or influence major modal diversion.



As noted in Chapter 5 of the State Rail Plan, INDOT and other agencies in the state have conducted studies of potential intercity passenger rail service improvements that would yield public benefits. These studies have evaluated estimated ridership, revenues, and costs for the new or reinstated services and provide the benchmark information necessary to determine whether further analysis and potential investment in the proposed services are merited.

Some examples of the impacts of recent federal- and state-funded passenger rail investments are discussed below.

7.5.1.1 West Lake Corridor Project

NICTD's West Lake Corridor is a new 8-mile branch of NICTD's commuter rail network extending from Hammond south to Dyer. The extension will provide a new transportation alternative for travelers in Lake County, Indiana to reach downtown Chicago, Michigan City, or South Bend International Airport, reducing travel times and promoting economic development

According to the West Lake Corridor's Draft Environmental Impact Statement, NICTD's intended goals for the proposed project are the following:

- Increase transportation options for accessing downtown Chicago
- Reduce travel time to downtown Chicago
- Reduce the parking burden at existing transit stations
- Reduce travel costs
- Promote economic development

The \$944.9 million project will construct the 8-mile extension in the western portion of Lake County, providing improved station accessibility and attracting an estimated 7,120 daily additional boardings on NICTD trains. The West Lake Extension will converge with the existing South Shore Line commuter line at Hammond. Four new stations are proposed on the corridor: Munster/Dyer Main Street Station, Munster Ridge Road Station, South Hammond Station, and Hammond Gateway Station. The project also includes a commuter train storage and maintenance facility in Hammond.

On October 28, 2020, the Federal Transit Administration (FTA) announced a \$354.6 million grant agreement with NICTD for the construction of the West Lake Corridor Project as part of FTA's Capital Investment Grants (CIG) program.¹⁸⁷

¹⁸⁷ U.S. Department of Transportation, U.S. Transportation Secretary Elaine L. Chao Announces \$354.6 Million Grant Agreement for West Lake Corridor Project in Indiana, October 28, 2020. Retrieved from: <https://www.transportation.gov/briefing-room/us-transportation-secretary-elaine-l-chao-announces-3546-million-grant-agreement-west>



7.5.1.2 Double Track Northwest Indiana Project

East of Gary, NICTD's commuter rail line currently has constrained operational flexibility, particularly between Gary and Michigan City where there is less track capacity and high train volumes.

Commuter and freight trains both use NICTD's track east of Gary, and delays can occur when one train must wait at a station or on a passing siding for another train to pass by. Both types of services may be delayed or suspended if maintenance activities require the single track to be temporarily removed from service.

The existing alignment also includes a section of track in Michigan City where trains run through the middle of a city street, limiting track speed to as low as 15 miles per hour for safety, impacting passenger schedules.

Approximately 40 percent of NICTD's current passenger demand is generated at stations east of Gary, where the line parallels Interstate 90 (I-90) and I-94. To improve operational reliability in this segment of the corridor and attract more ridership, NICTD has embarked on a project to construct a second mainline track on the single-track portion of its route between Gary and Michigan City.

The Double Track Northwest Indiana project involves constructing a second mainline track for 26.6 miles between Gary and Michigan City, upgrading five commuter rail stations including building nine new station platforms, adding more than 1,300 new parking spaces at stations, and building four new bridges. The project would significantly improve safety and efficiency in Michigan City by eliminating 2 miles of embedded street running track and moving NICTD to its own ballasted, double-track right-of-way with a new station, thus allowing for higher track speeds, eliminating 21 at-grade crossings, and creating opportunities for transit-oriented development adjacent to the new Michigan City station.

The second track will allow trains to travel continuously in each direction, without having to wait at passing sidings, improving on-time performance, travel times, and reliability. The project will construct two additional storage tracks at the Miller Station that will be used to extend NICTD's short-turn trains between Chicago and Gary. Passenger stations at Miller, Portage/Ogden Dunes, and Michigan City will be rebuilt with high-level platforms to provide level boarding for riders, improving access, mobility, and convenience.



Overall, the Double Track Northwest Indiana project will improve operational flexibility and reliability, reduce travel times, allow for expanded maintenance windows, and provide system redundancy in the case of service failures. NICTD's project website lists the following project benefits¹⁸⁸:

- Quicker travel times
- Increased service frequency
- Improved reliability
- Less need for temporary busing to get around planned maintenance
- Enhanced safety
- Opportunity for private investment and economic development resulting from faster and more frequent train service.

The project is expected to more than double existing South Shore Line ridership and reduce current travel times, saving up to 26 minutes on peak-period local trains between Michigan City and Millennium Station in Chicago and allowing for 67-minute peak express service between Michigan City and Chicago. Weekday service is planned to increase to 55 revenue trains by 2024, providing more trains during peak service hours and more frequent and consistent off-peak service.

Indiana Governor Eric Holcomb has expressed his personal support of the Double Track NWI project. The Governor wants to capitalize on the location where the NICTD line will be double-tracked as an opportunity to expand mobility, promote economic development, and alleviate road congestion, thus improving access for Hoosiers traveling between northwest Indiana and Chicago.

The state's FY18 and FY19 budget included \$20 million for the double tracking project. Indiana added another \$41 million in funding in its FY 2020-2021 budget along with \$25 million in contingency funding for the Double Track NWI and West Lake Corridor projects.¹⁸⁹ Local funding will be provided by the Northwest Indiana Regional Development Authority, LaPorte County, St. Joseph County, and the cities of Michigan City and South Bend. On January 8, 2021, NICTD signed a full funding agreement with the FTA that will provide \$173 million in New Starts Capital Investment Grants funding for the project, which represents approximately 35 percent of the project's \$491

¹⁸⁸ NICTD, Double Track NWI webpage. Retrieved from:

<https://www.doubletrack-nwi.com/>

¹⁸⁹ NWI Times, Year in Review: South Shore Line projects reach milestones, December 2, 2020. Retrieved from:

https://www.nwitimes.com/business/local/year-in-review-south-shore-line-projects-reach-milestones/article_be3f1e62-e05f-59b3-a5d2-04b6ffec3c16.html



million cost and allows construction to begin.¹⁹⁰ Revenue service is projected to start in late 2023 or 2024.

7.5.2 Passenger Rail Project Financing Plan

Capital investments related to intercity passenger rail corridors must be made at the regional level with concurrence by the service provider, other states served by the route, and the rail line owners. Any proposed improvements, such as those that will result in compliance with Americans with Disabilities Act (ADA) requirements for rail station standards, will provide increased access to the rail services and enhanced mobility that is more inclusive for the population as a whole.

Indiana's lack of direct control over intercity passenger rail corridors' physical and operational characteristics, as well as the current limited funding available for rail projects, require that public investments be limited to specific, strategic projects that help secure or improve service, increase ridership, and provide commensurate public benefits.

The development of new or reinstated state-supported intercity passenger rail services depends on funding that would be made available in the new surface transportation legislation to be authorized by Congress. The version of the new surface transportation bill introduced in the House of Representatives (H.R. 2— 116th Congress [2019-2020] INVEST in America Act/Moving Forward Act) included a new federal grant program (PRIME) that would be established specifically to fund the creation of new intercity passenger rail corridor services, providing \$3.8 billion per year for five years. Combined with Consolidated Rail Infrastructure and Safety Improvements Program (CRISI) grants and other passenger rail corridor enhancement grants, \$25 billion would be available to fund startup costs, equipment, and initial operating costs before transferring operating cost responsibility to the states.

7.5.3 Passenger Rail Operations Financing Plan

With the passage of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA), Congress voted to end federal support for Amtrak intercity passenger trains operating on routes of 750 miles or less effective October 2013.¹⁹¹ Indiana's intercity passenger rail service is currently limited to Amtrak long-distance routes and corridor services supported by the State of Michigan. Amtrak has sole fiscal responsibility for the operating costs of the long-distance routes. Amtrak service differs from state-supported intercity passenger corridor services where states have the financial responsibility for operating losses, but also a voice in the expected performance and operation of the service. Amtrak operates most state-sponsored intercity service as a contractor to the states. The

¹⁹⁰ Mass Transit Magazine, FTA, NICTD sign \$173 million FFGA for South Shore Double Track project, January 8, 2021. Retrieved from: <https://www.masstransitmag.com/rail/infrastructure/article/21205156/fta-nictd-sign-173-million-ffga-for-south-shore-double-track-project>

¹⁹¹ Library of Congress, H.R.6003 – Passenger Rail Investment and Improvement Act of 2008. Retrieved from: <https://www.congress.gov/bill/110th-congress/house-bill/6003/text>



establishment of new or reinstated corridor services without federal financial assistance would require Indiana to not only provide the financing for capital improvements necessary to upgrade routes to passenger service standards, but also to bear the responsibility for any portion of the operating expenses not covered by farebox revenue, in accordance with PRIIA legislation.

7.6 Freight Element

7.6.1 Freight Rail Project Financing Plan

Class I railroads are generally considered capable of funding their own routine maintenance and infrastructure improvements aimed at renewing, upgrading, or expanding their rail networks. Class I railroads rely on a regulatory framework that provides sufficient return on investment to accommodate these capital expenditures.

Private funding for projects is more challenging for Class II and Class III railroads. Internal cash flow for a Class II or Class III railroad is often insufficient for large capital investments needed to enhance yard and line capacity for improving the efficiency of train operations; provide enhanced rail access via upgraded or new transload facilities or industrial trackage; or upgrade legacy track and bridges to handle heavier loaded rail cars with gross weights of 286,000 pounds, which is the standard for the national freight rail system.

For this reason, Indiana has established the Industrial Rail Service Fund (IRSF) to assist in funding for the rehabilitation of the smaller railroads' infrastructure. Eligible railroads are Class II and III freight railroads as well as Port Authorities that have rail infrastructure. Such investments ensure that these railroads can continue to serve their shippers, thus helping to retain shipper employment and prevent the diversion of traffic from rail to truck and the consequent maintenance and safety impacts to the state highway and local road system.

Another key area for state investment is in highway-rail grade crossing safety and grade separations. Improvements include upgrades to warning devices and crossing surfaces, as well as appropriate crossing closures and grade separations. The benefits of such investments are reductions in accidents / incidents resulting in deaths and injuries, property damage, and fewer service failures at highway-rail grade crossings. Certain railroad-related projects that have public safety benefits can be funded through INDOT's administration of the Section 130 Rail-Highway Crossings Program, Railroad Grade Crossing Fund, and Local Trax program. Some projects may also be eligible for competitive federal discretionary grant programs described in Chapter 1.

7.6.2 Freight Rail Project Impact Analysis

The public benefits of state investment in the state's rail network include the transportation-related socio-economic and environmental benefits involved in providing safe and competitive rail freight service, as well as the preservation and protection of other irreplaceable rail assets for ongoing and future use.

Some examples of the impacts of recent federal and state-funded freight rail investments are discussed below.



7.6.2.1 Local Trax Railroad Program

In 2018, INDOT launched a new one-time grant program to improve safety at highway-rail grade crossings. The Local Trax program provides state matching funds to Indiana cities, towns, and counties for up to 80 percent of the land acquisition and construction cost of high-priority railroad grade separations, grade crossing closures, or other safety enhancements at railroad intersections with local roads. Funding for Local Trax was authorized by the Indiana General Assembly through changes in House Enrolled Act (HEA) 1002, effective July 2017, enabling the Indiana Finance Authority to issue and distribute bonds for the program. In 2018, INDOT selected 12 projects that would receive a combined \$121 million in Local Trax program funding. In addition to matching funds from county and local agencies, Norfolk Southern, CSXT, and Canadian National agreed to contribute a combined amount of nearly \$10 million to implement projects selected by the program.¹⁹²

7.6.2.2 Wabash River Freight Rail Bridge Replacement (Evansville Western Railway)

In 2018, the U.S. Department of Transportation awarded INDOT with a \$10 million TIGER IX grant to fund a project that rebuilt the approaches of a rail bridge over the Wabash River, near the town of Maunie, Illinois. This bridge is operated by the Evansville Western Railway, a Class III carrier. Senator Todd Young (R-Ind.), along with U.S. Senator Joe Donnelly (D-Ind.), Rep. Larry Bucshon (R-Ind.), and Rep. John Shimkus (R-Ill.), offered support for the TIGER grant in a letter to U.S. Transportation Secretary Elaine Chao in November 2017.¹⁹³

The Maunie Railroad Bridge was originally built in 1926. Approaches on both sides of the river were of timber construction and needed to be replaced in order to sustain continued safe and competitive railroad operations. The Evansville Western Railway connects Evansville, Indiana with Okawville, Illinois and serves a diverse assortment of industries in the region, including mining, agriculture, oil and gas, and manufacturing.

The \$20 million project replaced two bridge approaches that, if left unimproved, would have threatened the mobility of goods in the region. As a connector line to all four major Class I railroads, the project improved the long-term service life of the local freight rail network, adding to the economic competitiveness of the region and the economically challenged rural area. By promoting freight transportation options for area businesses and improving access to the global economy in

¹⁹² Indiana Department of Transportation. Gov. Holcomb, INDOT Award More Than \$121 million in State Matching Funds for Rail Crossing Safety Improvements Through Local Trax Grants, December 13, 2018. Retrieved from: <https://content.govdelivery.com/accounts/INDOT/bulletins/2224b0b>

¹⁹³ U.S. Senator Todd Young, USDOT Awards \$10 Million Grant for Posey County Rail Project. Retrieved from: <https://www.young.senate.gov/newsroom/press-releases/usdot-awards-10-million-grant-for-posey-county-rail-project>



surrounding rural communities, the project facilitated positive economic outcomes for this area of rural Indiana and Illinois.¹⁹⁴

7.6.2.3 FRA Four Crossings Grant

In 2016, INDOT was awarded \$640,000 to upgrade four major at-risk highway-rail grade crossings with improvements including flashing signals, over-lane cantilevers, automatic gates, constant warning time circuitry, and warning bells.¹⁹⁵ These upgrades are known to improve safety at highway-rail grade crossings by enhancing the consistency and visibility of automatic warning devices aimed at providing motorists and pedestrians with adequate advance notice of an approaching train.

Passive warning devices such as crossbuck signage and active warning devices with inconsistent warning times can lead motorists and pedestrians to make the decision to bypass the device and cross the track when it is unsafe to do so. Constant warning time circuitry ensures that the crossing apparatus consistently provides the federal minimum of 20 seconds of advanced visual and audible warning before a train arrives. Flashing light signals mounted on over-lane cantilevers improve visibility compared to mast-mounted flashing light signals. Consistency and visibility help motorists and pedestrians make better, safer decisions when crossing highway-rail grade crossings.

7.7 Rail Studies and Reports

Previous rail studies and reports have provided context for future decision-making related to rail investments in Indiana. Table 7-1 provides a summary of these past rail studies, which are each explained in further detail later in this section.

Table 7-1 – Rail Studies and Reports

Study	Year	Sponsor	Summary
Indiana State Rail Plan	2017	INDOT	Summarized the existing conditions, needs and opportunities of the Indiana rail system and engaged in a dialogue regarding the state’s rail network with stakeholders and the general public

¹⁹⁴ U.S. Department of Transportation, TIGER IX Awards. Retrieved from: https://www.transportation.gov/sites/dot.gov/files/docs/policy-initiatives/tiger/306331/t9-fact-sheets_0.pdf
¹⁹⁵ Federal Railroad Administration, FRA Awards \$25 Million in Grants to Upgrade Safety at Railroad Crossings, Stations, September 12, 2016. Retrieved from: <https://railroads.dot.gov/elibrary/fra-awards-25-million-grants-upgrade-safety-railroad-crossings-stations>



Study	Year	Sponsor	Summary
Indiana State Freight Plan	2018	INDOT	This document identified current conditions for each of the major freight modes, estimated current and future goods movement trends, identified economic trends and opportunities, and prescribed specific action items for future state support of efficient freight movement in Indiana
Intercity Passenger Rail Conceptual Infrastructure Plan	2019	INDOT	Explored the feasibility of reinstating intercity passenger rail service in the Indianapolis to Chicago corridor, at travel times and frequencies better suited to the travel market
Northern Indiana Passenger Rail Corridor Pre-NEPA Studies: Summary	2019	NIPRA	Summarized the initial planning activities undertaken by the Northern Indiana Passenger Rail Association to advance future passenger rail service between Chicago and Fort Wayne, IN with an extension of service to Lima, OH, serving the Indiana communities of Gary, Valparaiso, Plymouth, Warsaw, and Fort Wayne
Midwest Regional Rail Planning Study	2021	FRA	A multi-state planning effort to develop a comprehensive vision and governance model for an integrated regional rail network to advance passenger rail planning, procurement, and operations in the Midwest

Indiana State Rail Plan (2017) – The previous Indiana State Rail Plan (2017) provided an opportunity to summarize the existing conditions, needs and opportunities of the Indiana rail system and to engage in a dialogue regarding the state’s rail network with stakeholders and the general public. The 2017 State Rail Plan covered freight rail, intercity passenger rail, and commuter rail.

The 2017 State Rail Plan consisted of six chapters as prescribed by the FRA’s guidelines, which are as follows:

- Chapter 1 discussed the role of rail in the state’s transportation system, and how Indiana state and local governments are set up to support rail.
- Chapter 2 described Indiana’s rail network, its condition, its usage, environmental and economic impacts to the state, and trends that will impact the rail network in the future.
- Chapter 3 identified passenger rail needs and opportunities and discussed improvements and investments that have been proposed to address the needs and opportunities.



- Chapter 4 discussed freight rail needs, opportunities, investments, and improvements.
- Chapter 5 presented INDOT's vision, goals, and objectives for the rail system over the next 20 years, summarized rail projects that have been identified to help meet that vision and described available funding for those projects and potential impacts of proposed projects if they were to be completed.
- Chapter 6 summarized outreach and coordination efforts in developing the plan.

The plan fulfilled a federal requirement to complete state rail plans as established by PRIIA. The FAST Act added a further requirement that these plans be updated every four years.

Indiana State Freight Plan (2018) – This document serves as an update of the 2014 Indiana Multimodal Freight and Mobility Plan. In coordination with broad INDOT goals, the goals of the State Freight Plan update built on the 2014 State Freight Plan and drill down into specific areas directly impacting the movement of goods on Indiana's highways, railroads, waterways, and air cargo system. These areas are as follows:

- Identify opportunities to improve and maintain Indiana's transportation infrastructure, supporting the safe, efficient movement of freight through the state;
- Reduce bottlenecks to improve the reliability and efficiency of freight movement, leading to less congestion, fewer infrastructure repairs, and lower emissions;
- Promote better connectivity between all modes of freight transportation, including Indiana's water ports, highway, rail, and airports; and,
- Develop and implement transportation networks that support direct truck and rail access, water - borne freight expansion, and air cargo expansion, leading to the improvement and establishment of multimodal and intermodal service facilities.

This document identified current conditions for each of the major freight modes, estimated current and future goods movement trends, identified economic trends and opportunities, and prescribed specific action items for future state support of efficient freight movement in Indiana.

The FAST Act requires each state to develop a freight plan in order to be eligible for funding through the National Highway Freight program (23 U.S.C. 167).

Intercity Passenger Rail Conceptual Infrastructure Plan – Since the end of Amtrak's *Hoosier State* service in 2019, INDOT has been taking steps to explore the feasibility of reinstating intercity passenger rail service in the Indianapolis-Chicago corridor, at travel times and frequencies better suited to the Indianapolis-Chicago travel market. In 2019, INDOT released an *Intercity Passenger Rail Conceptual Infrastructure Plan*¹⁹⁶ for the corridor, which identified potential infrastructure

¹⁹⁶ Indiana Department of Transportation. Intercity Passenger Rail Conceptual Infrastructure Plan, November 2019. Retrieved from: <https://www.in.gov/indot/files/HoosierStateConceptualInfrastructurePlan.pdf>



improvements on the rail corridor between Indianapolis and Munster, Indiana, under two conceptual service plans. Improvements were identified to meet the following objectives determined in consultation with INDOT:

- Reduce travel time through localized speed improvements
- Increase service frequency to two round trips per day
- Increase the maximum authorized speed to 79 mph to reduce the total travel time

Conceptual passenger train schedules between Indianapolis and Chicago were developed for two operating scenarios — (1) two daily round trips at the existing maximum authorized track speed of 60 mph, and (2) two daily round trips with an increased maximum authorized speed of 79 mph — to identify where infrastructure improvements would be needed to support the enhanced rail service. Both conceptual service plans assumed that Amtrak's long-distance *Cardinal* will continue to operate three days per week in each direction on its existing schedule, providing supplemental service to the proposed daily corridor train frequencies. The study also assumed that the daily corridor round-trip trains from Indianapolis would terminate at the Dyer Station, where passengers would transfer to the NICTD West Lake commuter platform to access South Shore Line trains to and from Chicago Millennium Station.

Northern Indiana Passenger Rail Corridor – The Northern Indiana Passenger Rail Association (NIPRA) has been leading a regional, multi-state effort to re-establish intercity passenger rail service between Chicago and Lima, Ohio, through Fort Wayne, part of a longer rail corridor that would extend from Chicago to Columbus, Ohio, and beyond to Pittsburgh.

In January 2017, the City of Fort Wayne and the FRA announced the authorization of \$350,000 in funding to advance “Pre-NEPA” planning efforts for the Chicago-Fort Wayne-Columbus corridor. The work completed with this funding consisted of early planning activities that defined the Project's purpose and need, evaluated route and service alternatives, identified potential infrastructure needs, and completed conceptual engineering and capital cost estimates.¹⁹⁷ Decisions from these early planning activities will be applied toward the environmental review process, which is required under the National Environmental Policy Act (NEPA) for potential future federal funding. NIPRA anticipates requesting federal funds to complete NEPA requirements, including environmental documentation such as an Environmental Impact Statement (EIS), and support future Project implementation.

Midwest Regional Rail Planning Study – The FRA is leading the *Midwest Regional Rail Planning Study*—a multi-state planning effort to develop a comprehensive vision and governance model for an integrated regional rail network to advance passenger rail planning, procurement, and operations in the Midwest. The study builds on current rail planning efforts within the states of Illinois, Indiana,

¹⁹⁷ Northern Indiana Passenger Rail Association, Pre-NEPA webpage. Retrieved from: <http://niprarail.org/pre-nepa/>



Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. These 12 states along with the Midwest Interstate Passenger Rail Commission (MIPRC) comprise the lead stakeholders and provide intensive feedback and guidance on study efforts.

The study began in 2016 with initial efforts to evaluate potential markets, corridors, ridership, and costs as well as governance and/or institutional options that would ultimately feed into the creation of the Midwest Regional Rail Plan. The study utilizes the FRA's CONceptual NETwork Connections Tool (CONNECT), which serves as the analytical foundation for FRA-led regional passenger rail planning studies and is expected to be completed in 2021. Other FRA regional passenger rail plans include the *Southwest Multi-State Rail Planning Study* completed in 2014, and the *Southeast Regional Rail Planning Study* completed in 2020.

7.8 Passenger and Freight Rail Capital Program

The short-range investment program represents those projects that are programmed to be completed within the next four years through 2025 using public funding. Table 7-2 describes the short-range investment program.

The long-range Investment Program represents the unfunded projects that have been identified in preparing this State Rail Plan and are projects to be completed over the next 20 years. Table 7-3 describes the long-range investment program.

Projects from the long-range investment program will be moved to the short-range investment program as funding is identified.



Table 7-2 – Short-Range Investment Program

Stakeholder	Project Name	Project Description and Benefits	Estimated Total Capital Cost	Non-Federal Public Cost	Federal Cost	Funding Sources
Bloomington	B-Line Trail	Bike/Pedestrian Facilities from existing B-Line Trail terminus at Adams Street to 17th at Crescent on former railroad right-of-way	\$2,067,500	\$917,500	\$1,150,000	Local, Federal
Elkhart	Hively Avenue Grade Separation	Improved safety from grade separated crossing over Norfolk Southern Railroad	\$17,918,240	\$3,583,648	\$14,334,592	Local Trax Program, Federal, Local Match
Elkhart County	Elkhart Local Trax Railroad Grade Separation at Sunnyside Ave./Concord Mall Dr and CR 13	Eliminate the two at-grade railroad crossings and provide a single, grade-separated (overpass) crossing.	\$26,200,000	\$5,240,000	\$20,960,000	Local Trax Program, Federal, Local Match
Fort Wayne	Anthony Blvd Grade Separation	Improved safety from grade separated crossing over Norfolk Southern Railroad	\$24,600,000	\$24,600,000	TBD	TBD
Gary	N Clark Road Grade Separation Project	Railroad Crossing Removal N Clark Road (41.624916, -87.3 94131)	\$21,800,000	\$4,360,000	\$17,440,000	Local Trax Program, Federal, Local Match
Greene County	Bridge Replacement	IR 1026 bridge replacement over Indiana Railroad on Miller Road >6 miles E of State Road 157	\$1,612,100	\$322,420	\$1,289,680	Local, Local Bridge Program, Federal



Stakeholder	Project Name	Project Description and Benefits	Estimated Total Capital Cost	Non-Federal Public Cost	Federal Cost	Funding Sources
Hammond	Governor's Parkway Railroad Overpass	New bridge over Norfolk Southern, 800 feet E of Parrish, 600 feet N of 173rd in Hammond	\$7,803,510	\$1,560,702	\$6,242,808	Local Trax Program, Federal, Local Match
Hancock County	Penny Trail	Construct multiuse trail between 400W and 500W on former railroad right-of-way.	\$787,500	\$157,500	\$630,000	Group IV Program, Local, Federal
Hobart	Colorado Street Overpass	New bridge, Colorado Street over Canadian National Railroad in Hobart	\$8,470,000	\$1,694,000	\$6,776,000	Local Trax Program, Federal, Local Match
INDOT	Bridge Replacement	US 41 bridge replacement over CSXT Railroad, SBL, 2.85 miles S of SR-64	\$11,142,000	\$2,228,400	\$8,913,600	State Bridge Program, State Safety Program
INDOT	U.S. 31 & Elkhart Western RR Grade Separation	New bridge at Elkhart Western Railroad	\$24,970,000	\$4,994,000	\$19,976,000	State, Federal
INDOT	U.S. 31 & Norfolk Southern RR Grade Separation	Repair Mayflower Rd bridge over NS Railroad	\$4,465,000	\$893,000	\$3,572,000	State, Federal
INDOT	Railroad Work	Railroad work, various locations with railroad signal preemptions	\$315,721	\$63,144.20	\$252,576.80	State, Federal



Stakeholder	Project Name	Project Description and Benefits	Estimated Total Capital Cost	Non-Federal Public Cost	Federal Cost	Funding Sources
INDOT	Bridge Replacement	Replace US 27 bridge over NS RR, 0.30 miles N. of US 40 WB in Richmond	\$12,800,000	\$2,560,000	\$10,240,000	State Bridge Program
Johnson County	Bridge Replacement	Bridge #602 replacement on Smith Valley Road over LIRC 0.45 miles East of US 31 in Greenwood	\$2,723,970	\$544,794	\$2,179,176	Local, Federal
Knox County	Bridge Replacement	Bridge replacement on Old US 41 over CSXT Railroad	\$2,787,500	\$557,500	\$2,230,000	Local, Federal
Kosciusko County	Kosciusko County CR1300N Extension over Norfolk Southern Railroad and Main	Extends CR1300N over Norfolk Southern Railroad in Milford, creating a new grade separated crossing	\$9,305,700	\$1,861,140	\$7,444,560	Local Trax Program, Federal, Local Match
La Porte	Chessie Trail Phase 2	Chessie Trail Phase 2 (SR35/39 near Kroger to Intersection of L/State Street) in Michigan City on former railroad right-of-way	\$1,400,000	\$280,000	\$1,120,000	Local, Federal
La Porte	Tipton Street Railroad Overpass	New bridge, Tipton Street over Norfolk Southern Railroad	\$8,713,432	\$1,742,686.40	\$6,970,745.60	Local Trax Program, Federal, Local Match
Lawrence County	Mill Creek Road Bridge Replacement	Replace bridge #150 over CSXT Railroad on Mill Creek Road 0.4 miles E of CR 840S	\$1,525,100	\$305,020	\$1,220,080	Local Bridge Program, Local, Federal



Stakeholder	Project Name	Project Description and Benefits	Estimated Total Capital Cost	Non-Federal Public Cost	Federal Cost	Funding Sources
NICTD	West Lake Corridor	The West Lake Corridor Project is a 7.8-mile southern extension of the NICTD’s existing South Shore Line (SSL) commuter rail service between Dyer and Hammond in Indiana, with four new stations.	\$944,900,000	\$590,300,000	\$354,600,000	Local, State, FTA Capital Investment Grant
NICTD	Double Track NWI	The Double Track Northwest Indiana project involves constructing a second mainline track for 26.6 miles between Gary and Michigan City, upgrading five commuter rail stations including building 9 new station platforms, adding more than 1,300 new parking spaces at stations, and building four new bridges. Benefits include increased safety, greater capacity, and faster travel times for commuter rail passengers.	\$491,000,000	\$318,000,000	\$173,000,000	Local, State, FTA New Starts Capital Investment Grant
Schererville	Kennedy Avenue Grade Separation Project	New bridge, Kennedy Avenue over Canadian National and Norfolk Southern in Schererville	\$9,486,504	\$1,897,300.80	\$7,589,203.20	Local Trax Program, Federal, Local Match
Terre Haute	8th Avenue Grade Separation	New bridge, 8th Avenue over CSXT in Terre Haute	\$18,700,000	\$3,740,000	\$14,960,000	Local Trax Program, Federal, Local Match



Stakeholder	Project Name	Project Description and Benefits	Estimated Total Capital Cost	Non-Federal Public Cost	Federal Cost	Funding Sources
Vanderburgh County	Mill Road Railroad Overpass	New bridge, Mill Road approximately 650' west of Kratzville Road over CSXT Railroad in Evansville	\$6,910,000	\$1,382,000	\$5,528,000	Local Trax Program, Federal, Local Match
Wabash	N. East Street Grade Separation	New bridge, N. East Street over the Norfolk Southern Railroad, 0.08 miles N. of E. Hill St.	\$9,601,200	\$1,920,240.00	\$7,680,960	Local Trax Program, Federal, Local Match
Wells County	Hoosier Highway Reroute	Railroad crossing removal, rerouting of Hoosier Highway in Wells County to connect to Adams Street at Bluffton City	\$6,340,587.42	\$1,268,117.43	\$5,072,469.99	Local Trax Program, Federal, Local Match



Table 7-3 – Long-Range Investment Program

Stakeholder	Project Name	Project Description and Benefits	Estimated Total Project Cost	Potential Funding Sources
INDOT	Industrial Rail Service Fund Projects (Future Years)	The Industrial Rail Service Fund (IRSF) assists in funding projects for the rehabilitation of railroad infrastructure. Eligible railroads are Class II & III freight railroads and Port Authorities. Projects are selected to help maintain and increase business shipping levels on the rail network, and also to assist with funding needed for track infrastructure improvements related to new business development.	TBD	Industrial Rail Service Fund
INDOT	Railroad Grade Crossing Fund Projects (Future Years)	The Railroad Grade Crossing Fund (RRGCF) provides funding for highway-rail grade crossing improvement projects. This fund is typically used for passive highway-rail grade crossing improvements such as signage, pavement markings, median barriers, and illumination.	TBD	Railroad Grade Crossing Fund
INDOT	Section 130 Rail-Highway Crossings Program (Future Years)	Various projects to maintain public safety at highway-rail grade crossings.	TBD	Federal Section 130 Program, State or Local Match
INDOT	Indianapolis to Chicago Passenger Rail	Plan, design, and implement daily intercity passenger rail service between Indianapolis, IN and Chicago, IL	TBD	State, Federal
INDOT	Indianapolis to Louisville Passenger Rail	Plan, design, and implement daily intercity passenger rail service between Indianapolis, IN and Louisville, KY	TBD	State, Federal
NIPRA	Northern Indiana Passenger Rail	Plan, design, and implement daily intercity passenger rail service between Chicago, IL, Fort Wayne, IN, and Lima, OH	TBD	State, Federal



8 Public and Stakeholder Outreach

Numerous stakeholders and members of the general public were consulted during the preparation of the Indiana State Rail Plan.

8.1 Approach to Public and Stakeholder Outreach

INDOT is committed to engaging rail stakeholders and the general public in state rail planning activities. Stakeholder and public input for the Indiana State Rail Plan fostered a dialogue between INDOT, the public, and critical stakeholders. This dialogue complemented research activities, helping to fill information gaps. Input for this State Rail Plan was gathered in several ways. Table 8-1 presents the methods used and the purpose for each.

Table 8-1 – Outreach Approaches in the Indiana State Rail Plan

Outreach Methods	Purpose
Media outreach	Sent press releases to news organizations throughout the state of Indiana to provide updates on the purpose of the state rail plan, information on how to participate in scheduled stakeholder meetings and the public survey.
Online survey	Enabled the general public to comment on the Indiana State Rail Plan using a standard set of questions for passenger and freight stakeholders.
Railroad and shipper interviews	Conducted interviews and submitted requests to gain information from railroads on current conditions and specific needs and general feedback regarding rail issues in Indiana.
Virtual stakeholder committee meetings	Met with the public, representatives of railroads, special interest groups and other organizations and informed them of the purpose of the State Rail Plan. Solicited input on rail issues and opportunities. Obtained input from individuals, railroads, and organizations interested in rail and are impacted by rail issues.

8.1.1 Identification of Stakeholders

HDR and INDOT identified the following stakeholders with an interest and/or insights that are relevant to railroad transportation in Indiana:

- Metropolitan Planning Organizations (MPOs)
- Railroads
- Passenger rail associations
- Railroad shippers
- Trade associations of railroads, shippers, or other entities with interest in rail transportation
- Academia with a railroad focus
- Port authorities that interact with railroads
- Government officials with interest in railroads

Identified stakeholders were directly contacted based on their involvement in rail transportation to either complete an information request or participate in one of three virtual stakeholder committee meetings. A total of 136 stakeholders were identified and contacted. Table 8-2 displays the breakdown of stakeholders by type of organization.



Table 8-2 – Identified Stakeholders by Type of Organization

Type of Organization	Number of Stakeholders
Academic	23
Government	32
Railroad, Shippers, and Associations	55
Shipper	26
Total	136

8.1.2 Stakeholder Regional Workshops and Open Houses

In compliance with state and federal regulations during the COVID-19 pandemic, virtual stakeholder committee meetings were held on the following dates:

- October 27, 2021
- January 26, 2021
- May 19, 2021

Table 8-3 gives an overview of stakeholder committee attendance. **Appendices A-C** include summaries for each virtual stakeholder committee meeting.

Table 8-3 – Attendance at Stakeholder Committee Meetings

Date	Participants in Virtual Stakeholder Committee Meeting
October 27, 2021	62
January 26, 2021	49
May 19, 2021	94

The stakeholder committee meetings began with a brief presentation to 1) explain the purpose of the meeting, the 2) purpose of this State Rail Plan and 3) seek input on topics relevant to the scope of the State Rail Plan. Question and answer periods were held during each meeting to engage stakeholders further and receive formal comments. Participants could discuss rail issues and opportunities with INDOT and project consultant staff.

Questions gauged during the meeting included:

- What factors are expected to drive the movement of coal and metal products between 2018 and 2045?
- How should Indiana prioritize future freight rail service decisions?
- How should Indiana prioritize future passenger rail service decisions?
- What are the most critical aspects of a passenger rail service to you?
- What are the most valuable types of investments that should be made in Indiana to improve freight rail access, promote economic development, and enhance the state's competitiveness in national markets and the global marketplace?
- What industries or commodities do you see needing rail transportation in the future?
- What industries or commodities would benefit today by having better rail access? What should general geographic location rail service be considered?
- What is the most significant issue in Indiana's rail system?



- What is the most significant issue in your rail operations?
- What should passenger rail accomplish in Indiana?

Press releases and social media advertised each virtual stakeholder meeting.

8.1.3 Rail Stakeholder Interviews

In addition to the stakeholder workshops, INDOT and consultant staff interviewed individual rail stakeholders. Five interviews of passenger rail user groups in Indiana were conducted by phone during October 2020. The interview subjects consisted of two regional transportation planning organizations and metropolitan planning organizations representing some of the largest population centers in Indiana and three passenger rail advocacy groups, two based in Indiana and one in Illinois. The advocacy groups stated that they had membership rosters or contact lists ranging from 300 to 1,800 people. Both metropolitan planning organizations interviewed had Amtrak intercity passenger rail stations in their region. One metropolitan planning organization also has NICTD commuter rail stations in their region.

The groups targeted for interviews were approved or recommended by the Indiana Department of Transportation (INDOT). INDOT also reviewed and approved the interview questions before contacting participants. The consultant preparing the rail plan arranged and conducted the interviews. Each participant received an initial contact email that provided background information on the Indiana State Rail Plan, the role of passenger rail user interviews in the state rail plan development process, how the interview process would be conducted, an invitation to participate, and a request to establish an interview time. Each interview was confidential and lasted approximately one hour. Each participant was asked the same questions. The number of group participants in each interview ranged from one to two.

After the interviews, each participant received an email thanking them for their time. Attached to the email were the notes prepared during the interview to provide the interviewee with the opportunity to clarify or correct their provided information. The revised notes returned to the consultant team were used as the basis for an executive summary report, shown in **Appendix C**.

Eight groups were contacted with requests for interviews. Six groups agreed to be interviewed. One group declined to have their interview responses shared. Therefore this report summarizes the responses from five interview participants. Four participating agencies who agreed to be identified are:

- High-Speed Rail Alliance
- Northeastern Indiana Regional Coordinating Council
- Northern Indiana Passenger Rail Association
- Northwest Indiana Regional Planning Commission

8.1.4 Railroad Information Requests

Class I, II, and III railroads in Indiana were sent information requests as part of INDOT's annual reporting practices. This information 1) collected information on the condition, usage and extent of



each railroad's infrastructure; 2) identified needs for the Rail Service and Investment Program included in this State Rail Plan. This information was repurposed for the state rail plan.

8.1.5 Online Survey

INDOT posted an online survey on its website. A total of 2,318 responses were received, of which 1,056 were considered complete. Survey questions were tailored to the specific interests of respondents, depending upon whether they indicated that their interests related to freight rail, passenger rail, or concerns over rail-related community impacts (crossings, safety, noise). Some questions asked survey participants to select responses from a set of predetermined options, while other questions were open-ended. Nearly 60 percent of responses were received from the general public. **Appendix C** provides a summary of survey responses.

8.2 Coordination with the Neighboring States

INDOT coordinates with other states in the region through a series of regional commissions and initiatives. INDOT is a participant in the FRA's Midwest Regional Rail Plan and the Midwest Intercity Passenger Rail Commission. In addition, INDOT is active with national organizations that facilitate discussions on a regional and national level, including the States for Passenger Rail Coalition, the State Amtrak Intercity Passenger Rail Committee, and the Standing Committee on Railroad Transportation. INDOT's work in these national and regional initiatives and committees is reflected in this State Rail Plan.

INDOT also routinely coordinates with neighboring states Illinois, Michigan, Ohio, and Kentucky to discuss rail opportunities and issues as these matters arise. INDOT evaluated the most recent state rail plans of surrounding states (see Section 7.2). The initiatives, corridor approaches, and policies in these plans were determined not to conflict with any Indiana initiatives identified in this rail plan.

8.3 Issues and Recommendations

Stakeholders and members of the general public raised issues and made recommendations during the preparation of this State Rail Plan. These are summarized below, organized by subject area.

8.3.1 Improvements for the Reliability of the Rail Transportation Network

- Access to increased options for passenger rail travel throughout the state. That includes more station locations and additional train departure frequencies on existing routes.
- Additional frequencies Chicago-South Bend-Elkhart-Toledo-Cleveland.
- Additional routes plus additional sidings into business and industry locations and industrial parks.
- An increase in average train speeds and a decrease in traffic congestion.
- Another aspect of rail safety worth mentioning is the extent fiber networks encumber our assets.
- Assistance with crossing renewal funding; Industrial Siding funding assistance; Bridge renewal and maintenance funding assistance.
- Better infrastructure for class II and III railroads.
- Better maintenance on train crossings and install gates at every train crossing instead of just having signs and flashing light signals.



- Better MOW Funding for short lines for faster service to customers, as well as Land Reclamation for Abandoned Lines.
- Better timing at crossings with commuter traffic.
- Build more rail lines to allow passage of passenger trains, so commuters don't get stuck behind slow-moving freight.
- Change the location of passenger train boarding from the current terminal in Indianapolis to the original, update Union Station for passenger safety and provide parking for train passengers traveling for more than one day.
- Complete the South Shore Line double track project.
- Connect regional cities and make it easier for people to go places by rail, reducing traffic and environmental impacts.
- Consistent safety checks.
- Create more passenger connection points between towns.
- Create a service corridor for Chicago-Ft. Wayne-Columbus.
- Daily round trip passenger travels from Indianapolis to Chicago.
- Developing Intermodal and Logistics facilities in the Northwest and North Central regions of the state, so Indiana businesses don't have to rely on the congested Chicago rail network.
- Development of an Indianapolis hub with eventual service to St. Louis, Louisville/Nashville, Cincinnati, Ft. Wayne/Detroit, Columbus/Pittsburgh, and Bloomington/Evansville/Memphis.
- Eliminate crossings, double-track South Shore.
- Enforce rules that prevent freight from slowing passenger service.
- Establish three routes for the State Capitol: 1) From Lawrence to Anderson to Muncie 2) From Mooresville to Martinsville to Swiss City to Bloomington 3) From Brownsburg to Whitestown to Lebanon to Frankfort to Lafayette.
- Evansville to Indianapolis to Ft. Wayne Chicago to Lafayette to Indianapolis to Cincinnati South Bend to Indianapolis to Louisville.
- Expand opportunities to serve more of the state. Link Bloomington, Evansville, Indianapolis, Gary, and Fort Wayne with passenger rail service.
- Expand South Shore Service, mainly east of Michigan City. Expand Amtrak service to include Indianapolis-Columbus, OH and Indianapolis-NW IN to connect to the NICTD/South Shore
- Expand upon existing Cardinal Service by reinstating the Hoosier State service to provide affordable, daily passenger rail.
- Expanded rail access could make the service more reliable and valuable.
- Get passenger platforms level with the doors of the train cars.
- Give passenger rail traffic precedence over freight.
- Good communication concerning grade crossing closures is always appreciated.
- Greater frequency of rail, including an expanded network and affordability.
- Have a GPS-enabled app and enhanced information about arrival/departure times, passenger capacities, and ability to buy/exchange.
- Have dedicated passenger rail corridors.
- Have faster transit times and newer equipment.
- Have fewer grade crossings, eliminating train versus auto/truck collisions.



- Have high-speed rail along US-30 to allow fast access to NW Indiana and Chicago. High-speed rail system from South Bend to Indianapolis. Increase speed to Chicago from South Bend.
- Have more rail access points between towns of 1,000 people or more.
- Have the state acquire all railroad route abandonments to analyze future rail use under new railroad companies, including short lines. This should assist in the economic development of sites requiring rail.
- Helping economic development organizations identify and place projects at rail-served industrial sites to ensure fair use of existing rail. This can provide rail carriers with an incentive to maintain and improve railroads.
- Improve availability of passenger trains in southern Indiana
- Improve communication when there is a train issue, delayed or canceled.
- Improve connectivity and frequency of passenger rail service in the state.
- Improve equipment to handle extreme weather.
- Improve public information supporting rail transportation. This includes having reliable time schedules for consumers.
- Improve rail availability in western Indiana.
- Improve rails for faster service. Mainly, reduce the number of conflicts with motor vehicles by reducing or eliminating crossings. That will improve reliability.
- Improve the commuter train system from the Indianapolis suburbs to downtown Indianapolis. Create commuter rail from Lafayette and Bloomington further connect cities.
- In the past, rail hubs were located in cities to allow for easier distribution of freight and passengers. The freight system needs to be moved out of town to an industrial area.
- Increase capacity to mitigate delays caused by freight interference.
- Increase connectivity to major midwestern cities.
- Increase rail capacity, provide incentives to ship by rail, make it the goal to do everything possible to reduce truck traffic on our highways except for local deliveries. Medium to long-distance traffic should move by rail.
- Increase the amount of funding for short lines and support funding to establish regional intermodal facilities.
- Increase trip frequency to major job centers and key destinations.
- Increased frequency and route availability. Ideally, twice-daily service to Chicago via Lafayette, Fort Wayne via Muncie, Louisville via Columbus, St Louis via Bloomington.
- Integrate tracks with highway/interstate routes where applicable to lower the overall footprint of various modes of transportation.
- Invest in improvements to rail infrastructure used by Amtrak Cardinal (especially in White County) to allow 79 MPH (instead of 59 MPH) when possible.
- Modernize track infrastructure.
- More frequent passenger connections between Indiana and neighboring states.
- More frequent service to more destinations, including commuter service between Indianapolis and other cities in the state.
- More grade separation at street, highway, rail crossings, including electrification.



- Rail reliability and transit times would improve better protection for grade crossings and stop trespassers from the rail right-of-way.
- Railroad crossings need to be improved, strengthened and smoother on a more consistent basis.
- Reopening of abandoned lines to renew rail service to communities.
- Require Highway Grade Crossing separation or removal for every crossing.
- Restoration of Hammond-Whiting station for Capitol and Lake Shore trains.
- Study the extension to Elkhart using Elkhart & Western right-of-way.
- Coordination of intercity bus service with Amtrak.
- There should be better staff scheduling, so trains don't have to stop for long periods to switch crews.
- Upgrade rails to accommodate increased, higher-speed trains.

8.3.2 Economic Development

8.3.2.1 Regulatory Challenges

- All funding goes to highways and airports.
- Allow elimination of train whistles for gated crossings.
- Allow funding for tourist trains.
- Automobile travel is prioritized at the expense of rail travel, so people are forced to drive.
- Ban on light rail in the Indianapolis area.
- Constant expansions of highway infrastructure push for more car transport. Bringing more transit options to Indiana can lessen our carbon emissions and provide alternative transportation for those without cars.
- Existing regulations support policies favoring non-rail modes of transportation, especially automobile transportation.
- Federal cuts and state cuts to funding seem to be the most significant challenges.
- Federal highway funding should be subject to the same standard of cost-benefit analysis as transit funding.
- Indiana's 2014 ban on light rail blocks progress needed to make in improving commuter rail infrastructure.
- Lack of toll roads and low gas taxes make driving too easy. Much money is spent on road maintenance, but little revenue is collected.
- Mandated parking minimums are a poor usage of land area, and a dependence on fossil fuel infrastructures like roads and highways are damaging to our climate and, in turn, our economy.
- No regulations exist to spur the growth of transportation alternatives.
- Passenger trains do not receive any subsidy instead of road and planes in the state of Indiana.
- Replace the laws that do limit how long grade crossings can be blocked.
- Restrictions on the distances trains must operate.



- Securing the support of local and state agencies to assist with the matching funds need to secure the grants. Taxpayers who do not drive should have some of their funds applied to passenger rail service to help with their mobility.
- The state law that bans light rail is a significant hindrance. The state legislature's insistence on disrupting the expansion of transportation options in Indianapolis is incredibly short-sighted. A significant obstacle to ensuring individuals who can't afford a car can get jobs, medical appointments, grocery stores, and other opportunities.
- State motor fuel tax money should be able to be used for intercity passenger rail.
- We need rules to prevent trains from blocking crossings for long periods.

8.3.2.2 Overall Competitiveness

- A commuter rail line from downtown Indianapolis to Noblesville would be a good test project of the effectiveness of commuter rail in Indiana. It would also be a beacon to major developers that Indiana is a contender in developing the quality of life infrastructure necessary to attract top talent from other markets.
- To be more accurate, a creation (or a restoring, to be more accurate) of an inter-urban light rail network in the Metro Indianapolis area with a new, expanded transportation hub in downtown Indianapolis. Dedicated passenger rail.
- A more extensive and affordable passenger rail system with more access points.
- Accessibility to more cities and faster rail service.
- Adding routes with trips above in mind, connect with more extended systems for comprehensive trip planning.
- Build a more extensive and affordable passenger rail system with more access points.
- Connect northern Indiana to southern Indiana through Indy.
- Connect the universities for special weekend events as arts, academics, sports, and others.
- Convenient departure/arrival times, infrastructure projects to eliminate rail congestion in NW Indiana.
- Daily and logical departing/returning times for connections.
- Develop a State-owned entity to bring passenger rail service to major metros.
- Electrification and track improvements on the line where Amtrak's Cardinal line currently travels.
- Expand on overall availability and integration of rail networks across Indiana.
- Expanding passenger rail. Currently, the Indiana rail system freights a lot of coal. However, coal is quickly phasing out as an energy option (as it should). As coal scales down, passenger rail should scale up, which will likely fall in line with increased passenger rail options in neighboring states.
- Fort Wayne is a major city in Indiana with multiple hospitals. However, patients with acute conditions are still forced to go to either the Cleveland Clinic, Indy to IU Hospital, or Chicago or Detroit. But sometimes patients cannot drive themselves to these destinations, and airfare can be prohibitive. Our most significant health care provider, gas, recently partnered with Cleveland Clinic & Indiana MUST factor in the overwhelming amount of patients that have to



travel from Fort Wayne to Cleveland seven days a week for treatment or to visit/transport their loved ones getting treatment there.

- High-speed rail
- Improve tracks such as the Chicago to Indy route so trains could run faster and more frequently.
- Incentives (or penalties) for host railroads.
- Major carriers such as CSX and NS have continually abandoned their service commitments to non-through traffic such as intermodal and specific commodities. New rail loading and exchange points are not being built for the most part to encourage one of our most efficient forms of transport.
- More rail everywhere. Commuter rail to Indianapolis from Bloomington, Lafayette, Kokomo, Muncie, Anderson, Columbus, Franklin. A rail line from the South Shore to Louisville. Rail from Ft. Wayne to Evansville.
- South shoreline needs to go farther south, at least in Lake county. The extension ending at the Munster-Dyer border is not enough. It should continue along those same tracks, at least to St. John. There is a neighborhood on the west side of Schererville adjacent to the tracks where a station could be added. In St. John, there is plenty of space for a station along those tracks just east of US 41. Some space west of 41 as well. Hoosier State Amtrak line should also be brought back. At least two trains each way, each day, so a round trip either way between Chicago and Indianapolis is possible
- The current passenger train to Chicago runs on freight tracks. Improvements to the track are needed to increase the speed of the train safely.
- Track in top condition to allow faster service that would be truck competitive.

8.3.3 Communities and Corridors Recommended for Passenger Rail Expansion

- A Chicago to Cincinnati daily service with the usual Cardinal stops would be ideal
- A commuter line from the airport to the IMS track to downtown Indy would make hosting conventions more appealing. It would increase IMS's presence in the city and reduce traffic congestion around race days.
- A route could be established using CSX to Muncie and NS to Ft Wayne.
- A route could be reestablished to offer a train from Chicago to Louisville, Nashville, Birmingham, Atlanta and Miami through Indianapolis.
- All college towns or any towns over 1,000 people should have train access.
- All the interstate corridors and connections to cities that do not have interstates, possibly also the US highway corridors, don't overlap with the interstates.
- Along congested commuting highways, state roads, and interstate, and intrastate corridors.
- An East-West route in the northern quarter and Southern quarter of the state.
- Areas of high traffic and those areas with limited means of transportation. A passenger rail will not be effective if it is not accessible by those who need it most, such as those living in rural areas.
- Areas surrounding Indianapolis such as Hamilton, Johnson, Boone, Hendricks counties.
- Bedroom communities to large urban areas. Link Large [sic] urban areas with high-speed rail.



- Bloomington to Chicago and Indianapolis and Goshen, South Bend area.
- Bloomington/Indiana University to Fort Wayne.
- Columbus.
- Connect all these cities/towns: Greenwood/Bargersville, Franklin, Columbus, Indianapolis, Downtown Carmel, Fishers, Zionsville, Cincinnati, Louisville, Terre Haute, South Bend.
- Connect Indianapolis to surrounding counties (and sometimes beyond - think Brown County or Bloomington).
- Connect Southern Indiana communities to Louisville and Evansville.
- Connections to communities along the I-74 corridor towards Cincinnati and the I-65 corridor towards Louisville seem like the two easiest to establish. However, a fast, frequent, reliable line between Indianapolis and Chicago would serve a much larger audience.
- Consider all major cities--Fort Wayne, Indianapolis, and South Bend--and then improve connectivity to Chicago, Cincy, Louisville, and Detroit.
- Crawfordsville, Indianapolis, Terre Haute, Richmond, Columbus, South Bend, Ft Wayne
- East-West Corridor to connect Champaign-Indianapolis-Dayton-Columbus.
- Evansville (Vincennes, Princeton, Terre Haute, Clinton, etc., with all towns between Chicago and Evansville that connect on the current CSX line within Indiana)
- Evansville to Indy, then continuing to Chicago.
- Expand to rural areas, so Indiana residents have the option to travel to major metropolitan areas.
- Fast, reliable, competitive, Intercity passenger rail service between Indianapolis and other cities in Indiana like Bloomington and Lafayette/West Lafayette would be ideal.
- Fishers.
- Fort Wayne to nearby cities.
- Gary, South Bend, Ft Wayne, Richmond, Jeffersonville, Evansville, Terre Haute.
- Improved community connection.
- Indianapolis to metropolitan areas such as Cincinnati, Louisville, Detroit, as well as suburban areas.
- Integrate with other modes of local transportation (airports, private and public bus systems, car rental services). Integrate with the interstate system to lower footprint/intersections for longer distance high-speed routes and highways into smaller communities (e.g., county capitals). Must be cost and time effective as well as safe and convenient.
- Long-distance corridors running north/south to connect Louisville/Evansville-Indianapolis-Lafayette/Fort Wayne-Chicago/South Bend.
- More access points north and south of metro Indy (Westfield and Greenwood, for example), plus South Bend, Ft Wayne, Evansville, and their surrounding commuter towns, college towns, and cities with enough population to support commuters.
- The ex-Illinois Central, presently INRD line from Indianapolis to Bloomington to Effingham, IL. Indianapolis and Effingham are already Amtrak stops. The historic train station building in Bloomington is still there and in good condition.
- The populous cities in the state. Indianapolis to and from: Terre Haute, Bloomington, Evansville, Muncie, Richmond, Fort Wayne, South Bend.



- Warsaw, Indiana.
- You can use the main east-west CSX routes to go from Cleveland to St Louis through Indianapolis via St Louis Line and Indianapolis Line/Mt Victory subs.

8.3.3.1 Commuter Rail Expansion

Commuter rail service refers to passenger trains operating between employment centers and outlying areas. Commuter rail lines typically serve daily riders traveling distances between 10 to 50 miles. The following areas were recommended according to stakeholder input:

- A link between business and residential areas. A link between long-distance and commuter trains
- A rail line to all significant Indiana cities would be a good start. Ft. Wayne, Terre Haute, Evansville, Richmond. With stops along the way
- All college towns and any town of over 1,000 residents should have train access.
- Bloomington/Martinsville to Indy.
- Central Indiana commuter rail would be handy. A model like Metra or BART would be ideal. This could connect the inner-ring suburbs to downtown Indianapolis and other dense Indianapolis neighborhoods. Trains from downtown to Castleton or other shopping districts would be helpful as well.
- Central Indianapolis to the Westside industrial complexes or surrounding factories.
- Chicago to Valparaiso extending to Fort Wayne.
- Cities with plenty of universities/college options and have over 1,000 residents should have access to passenger trains. Examples of cities would be Bloomington, Indianapolis, Fort Wayne, South Bend, and Lafayette.
- Columbus, IN.
- Columbus/Seymour to North to Indianapolis and South to Louisville to help take some pressure off I 65. If Indiana had good commuter services throughout the state, made it affordable, and worked with corporate business partners to encourage workers to use it, it could make a big difference in the impact of traffic levels on the Interstates and highways.
- Commuter train service to downtown Chicago from South Bend, Michigan City, and Gary/Hammond. Train service from outlying suburbs to downtown Indy.
- Continued improvements to the NICTD infrastructure with a connection in Dyer south to Indianapolis and Louisville.
- Elkhart and Goshen, leading to centralized service to downtown South Bend
- Evansville
- Fort Wayne south along Highway-27, Fort Wayne west along Highway-30
- Gary, South Bend, Indianapolis, West Lafayette, Fort Wayne, Bloomington, Evansville
- Greenwood, Mooreville [sic], Plainfield, Westfield, Carmel, and Greenfield.
- Hamilton County.
- I-70, I-65, I-69.



- Indiana suffers from extensive urban sprawl. Providing consistent direct access from outlying towns and communities to work centers is critical to improving community accessibility and decreasing parking issues in our communities.
- Indianapolis has a great network of rail lines and abandoned lines radiating out of the city. These routes could serve communities such as Terre Haute, Greencastle, Crawfordsville, Frankfort, Lebanon, Lafayette, Anderson, Muncie, Shelbyville, Greensburg, New Palestine, Rushville, Connersville, Franklin, Greenwood, Columbus, Bloomington, Martinsville, Mooresville, Spencer, Gosport, Whitestown, Zionsville (abandoned route), the Indianapolis International Airport, Plainfield (abandoned route), Avon, Brownsburg, Speedway (abandoned route), Castleton-Fishers-Noblesville-Atlanta (recently abandoned route), Greenfield-Knightstown-Richmond (abandoned route).
- Lafayette, Muncie via Anderson, Kokomo via Carmel and Westfield, Greenfield, Franklin, Martinsville, Brownsburg,
- LaPorte and Valparaiso links to South Shore Railroad commuter line
- Light rail from the donut counties surrounding Marion County into downtown Indianapolis and to the airport.
- Many people who commute daily to Marion County from neighboring counties or suburban areas of Marion County to/near downtown could benefit from commuter rail service. This would have the potential of reducing some of the single-occupant vehicular traffic which clogs daily choke points of our interstate system during rush hours.
- Marion County, but over-concentration on this area will stifle economic growth in the state. I believe a line from Evansville to Terre Haute, to West Lafayette, to the North Shoreline, an I-70 corridor line, an I-69 line, and a US 31 line would make a significant difference. Start in Marion County and build out as demand allows. The Evansville to Terre Haute to West Lafayette to the North Shore would serve commuters on local business travelers and tourists.
- Muncie-to-Anderson-to-Fishers-to-Indianapolis, the I-69 corridor.
- Northern Indiana (NICTD) South Lake Extension is a great project to see moving forward. With upcoming infrastructure improvements likely to impact traffic flow from the New Albany into Louisville, KY region, that could likely benefit from commuter rail service. Indianapolis is desperately in need of a viable commuter rail system. The Northeast corridor would be the area for a commuter system into downtown Indy AND even the starter leg of an Indy-Chicago route that starts in Noblesville, through Fishers, Indy and backs up to Chicago.
- NW Indiana, which will still be underserved even after the NICTD expansion to Dyer.
- Outlying counties in and out of Marion County. It was stupid to allow Hamilton County to remove the existing rail line that could have been extended downtown. How much more concrete can be poured to accommodate cars. Multiple departure times are required to make this attractive to riders.
- Passenger rail service from Bloomington, Seymour, Columbus, Martinsville, or other southern communities traveling to Indianapolis may be a downtown hub where Indy Metro would have new bus routes from the downtown hub branching out across Marion City along with



current routes. This would alleviate commuting congestion along with sports and other entertainment congestion and encourage more people to travel.

- Primarily in Lake, Porter & LaPorte Counties. Also consider Marion, Hamilton, Boone, Johnson, Madison, Delaware, Hendricks, Clarke, and Floyd Counties.
- Re-extension of SSL to downtown South Bend, elsewhere in the region, and introduction in Indianapolis.
- Rural areas and places where there's employment. Connecting small towns to employment hubs.
- Schererville.
- Something around Indianapolis as the hub and major cities like Lafayette and Bloomington being the satellite cities.
- Southern Indiana/Louisville, North to Indianapolis and Chicago. Southern Indiana/Louisville East to Cincinnati.
- Suburbs and donut communities around Indianapolis.
- Suburbs that feed into Indy.
- Terre Haute; this would lessen vehicle traffic on the overcrowded and dangerous Interstate 70.
- The greater Indianapolis metropolitan area and outlying communities.
- The northeast corridor in Marion/Hamilton counties would benefit from either commuter rail, LRT, or BRT.
- The northern Indiana corridor from Columbus, OH, to Fort Wayne, IN, to Chicago, IL.
- The South Shore Line expansion to the Dyer area will be an excellent move to tap that corner of NWI. Suburban Indianapolis could benefit similarly. Certain routings that would make sense would be to the north (Carmel/Fishers/Noblesville).
- The West Lake County project coming down from Hammond to Dyer is a step in the right direction.
- Toyota plant in Gibson County.
- Train service to surrounding suburbs and employment centers (Plainfield, Whitestown, Carmel, Fishers, etc.).
- Valparaiso, Indianapolis, Terre Haute, Fort Wayne, Evansville, South Bend, Muncie, West Lafayette, other major cities (especially with college/universities).
- Warsaw / Plymouth service to Chicago.
- West Lake is being built to Dyer from Hammond. Start planning for Phase 2 now, extending West Lake from Dyer/Munster border to St. John / Cedar Lake outskirts (to U.S. 231). Outside of that, study commuter lines in the Indianapolis area (a couple of possible routes meriting consideration): Indianapolis - Fishers - Anderson - Muncie Indianapolis - Carmel - Westfield Indianapolis - Greenwood - Franklin - Columbus.
- Westfield to downtown Indianapolis.



8.3.4 Freight Concerns

The majority of stakeholders (nearly 60 percent) said the top five concerns related to freight transportation included:

- 1) Abandonment/shrinkage of the rail network
- 2) Availability of rail service
- 3) Availability of rail-served industrial locations for new businesses
- 4) Availability of truck/rail freight transfer facilities
- 5) Condition of rail lines

Below is a summary of the concerns raised:

- An intermodal facility at Plainfield connecting to CSX at Avon is needed.
- Available land near Indianapolis is challenging to supply rail service.
- Bottleneck at KBSR/NS connection at Lafayette
- Bottlenecks create issues with getting goods to their destinations on time.
- Communities such as Decatur and Auburn have existing rail spurs that could be expanded and marketed to attract new businesses.
- Concerned about the accelerated conversion of rails to trails throughout Indiana.
- Concerns about the abandonment of rail lines and the historical significance of the infrastructure being preserved.
- Cost to implement quiet zones in NWI communities most impacted by busy rail lines like Chesterton, Valparaiso, La Porte
- Crossings are becoming increasingly rough for car/truck traffic and impair speeds.
- Decreasing rail use leads to more heavy trucks on the highways and city streets, leading to more frequent road damage/construction and violent crashes.
- Delphi created a TIF Industrial Development Park south of the Hoosier Heartland Corridor, which has no rail access. There are currently no stops through the City of Delphi except for The Andersons, which is outside Delphi. Re-routing the rails outside of the City limits to follow the Hoosier Heartland Corridor (SR 25) would provide service to the Industrial Park, as well as eliminate all the crossings within the City of Delphi, which would, in the long run, save the railroad money on crossing maintenance, increase safety with decreased crossings.
- In Plainfield, Indiana, distribution centers should be linked up with the rail network to reduce truck traffic on the interstate.
- Expansion of the Indiana Railroad would reduce shipping cost for medium to large shippers.
- Forced abandonment of rails in Hamilton County. Out of service lines between Shelbyville and Greensburg, which could better flow autoracks in and out of Honda.
- Freight rail should be expanded, but it should not be designed to compete with river barge transport.
- Frequency of Service. Reliability of Service. Cost of access to service.
- Higher speeds allowed for trains in densely populated areas.
- Highways throughout Central Indiana are highly congested and under constant construction to deal with the wear and tear of the high-impact loads of semi-traffic. We should utilize the infrastructure that is best suited for heavy loads (railroads) and focus on last-mile transportation by truck, if necessary.



- Increased rail capacity, especially among short lines, could attract alternative ways to transport.
- Increasing Train Lengths, PSR, Service to Small Shippers
- Indiana needs rules to prevent trains from blocking crossings for long periods.
- Indiana rail access for transfer stations at more locations.
- Indiana should help rail bank unused corridors and preserve them for future rail use. Once a linear corridor is lost, it's nearly impossible to piece it back together.
- Keeping industrial hubs connected is critical.
- Keeping the railroad crossings clear of trees and brush.
- Large volumes of slow-moving trains can cause long delays in towns and cities.
- Limited industrial parks or room for them to grow.
- Loss of economic development due to declining of railroad service (especially Eastern Indiana).
- Many industrial parks and areas could benefit from short line service.
- More intermodal services in Northwest Indiana.
- Must keep open rail service to smaller communities, for example, agricultural centers for shipping corn and soy to Indiana's international port facilities.
- Need to create more rail-development sites in northern Indiana Corridor. Sites like Indiana Enterprise Center in western St. Joseph County that N/S, CN and CSS could serve would be great investments.
- Not enough rail service options for small businesses. Rail service can be beneficial & resourceful, but additional track and funding may be needed to accommodate.
- Old rail banks need to be relayed and bring southern Indiana small towns back to like.
- Past abandonments throughout the state have led to capacity issues.
- Precision Scheduled Railroad practices have caused smaller shippers to have been left out in the cold because they don't fit into the higher traffic volume that PSR thrives on and is geared. A negative effect of PSR shutting out of many small or medium shippers. With PSR implementation, some lines have seen increased traffic, and there are some bottlenecks in some areas (Terre Haute and Ft Wayne). Precision-scheduled railroading is a detriment to the smaller customer. Track conditions are not up to the standards that they should be bare minimum maintenance. Track capacity does not allow for trains to move freely without congestion, many delays and bottlenecks.
- Rail service to the agriculture corridor, specifically Lowes Pellets and Grain and Next Generation, Greensburg, Indiana.
- Rail to newly developed industrial parks would open the possibility for more heavy industry.
- Rail upgrades that allow for increased speeds for freight and passenger.
- Rails across rural Indiana seem to be unmaintained and underutilized.
- Relocate the ISRR line through Spencer to the area south near the north bank of the White River. This would eliminate numerous crossings in town down to just one or two.
- Safety at rail crossings, especially in rural areas.
- Short line railroads around Indianapolis can serve other areas of the state. However, business seems to be discouraged or otherwise non-existent (i.e., less train movement).



- Southeastern Indiana (Dearborn and Franklin Counties) has no transload facility in Indiana, requiring transload to happen in Ohio. Short line IORY railroad (Genesee & Wyoming) from West Harrison to Brookville has been inactive.
- The abandonment/shrinkage of the rail network will significantly harm transporting freight in the near future. The almost complete reliance on trucking will prove to be detrimental to our roads and general quality of life.
- The commercial rail industry is not investing in the infrastructure to keep ahead of truck transportation.
- The railways could help farmers transport their crops; counties that have eliminated all rail service such as Hamilton; abandonment of rails to trails; short line service between communities; and educating the driving public about the safety of trains going through communities.
- The shrinkage of the state's rail network in the 1980s and 1990s has diminished or eliminated service to rural community shippers, which in turn has increased truck traffic and eliminated business growth.
- The state must prioritize rail safety at grade crossings.
- The state should take possession of abandoned rail lines to ascertain the potential economic development of new or revitalized industrial sites.
- There is a crossing on Belmont that I have had to sit and wait for the train to cross 30 minutes+ before.
- There is not a direct route from Indianapolis to Chicago where freight trains can travel at higher speeds. Indiana's rail network seems to continually be shrinking while more trucks are using Indiana's interstates. Moving freight by train may take more time, but it would save on fuel costs and make Indiana's interstates safer.
- Updating lines to use higher speeds and adding high-speed passenger lines around the state could help offset costs overall and increase the interest in using rail in all aspects.

8.4 Coordination of Rail Planning with other Planning Activities

The creation of this State Rail Plan has been coordinated with other planning efforts, including INDOT's *Long Range Transportation Plan (2018-2045 Transportation Needs Report)*¹⁹⁸ and the *Indiana Multimodal Freight Plan Update 2018*.¹⁹⁹ This State Rail Plan has been coordinated with local and regional planning efforts. Each of Indiana's 14 MPOs were invited to attend stakeholder sessions for this State Rail Plan. This State Rail Plan has also incorporated the findings of local planning studies.

¹⁹⁸ INDOT. *2018-2045 Transportation Needs Report*. <https://www.in.gov/indot/resources/planning-studies/technical-planning/2045-indot-long-range-transportation-plan/>

¹⁹⁹ INDOT. *Indiana Multimodal Freight Plan Update 2018*. <https://www.in.gov/indot/files/Indiana%202018%20State%20Freight%20Plan.pdf>

2021 Indiana State Rail Plan

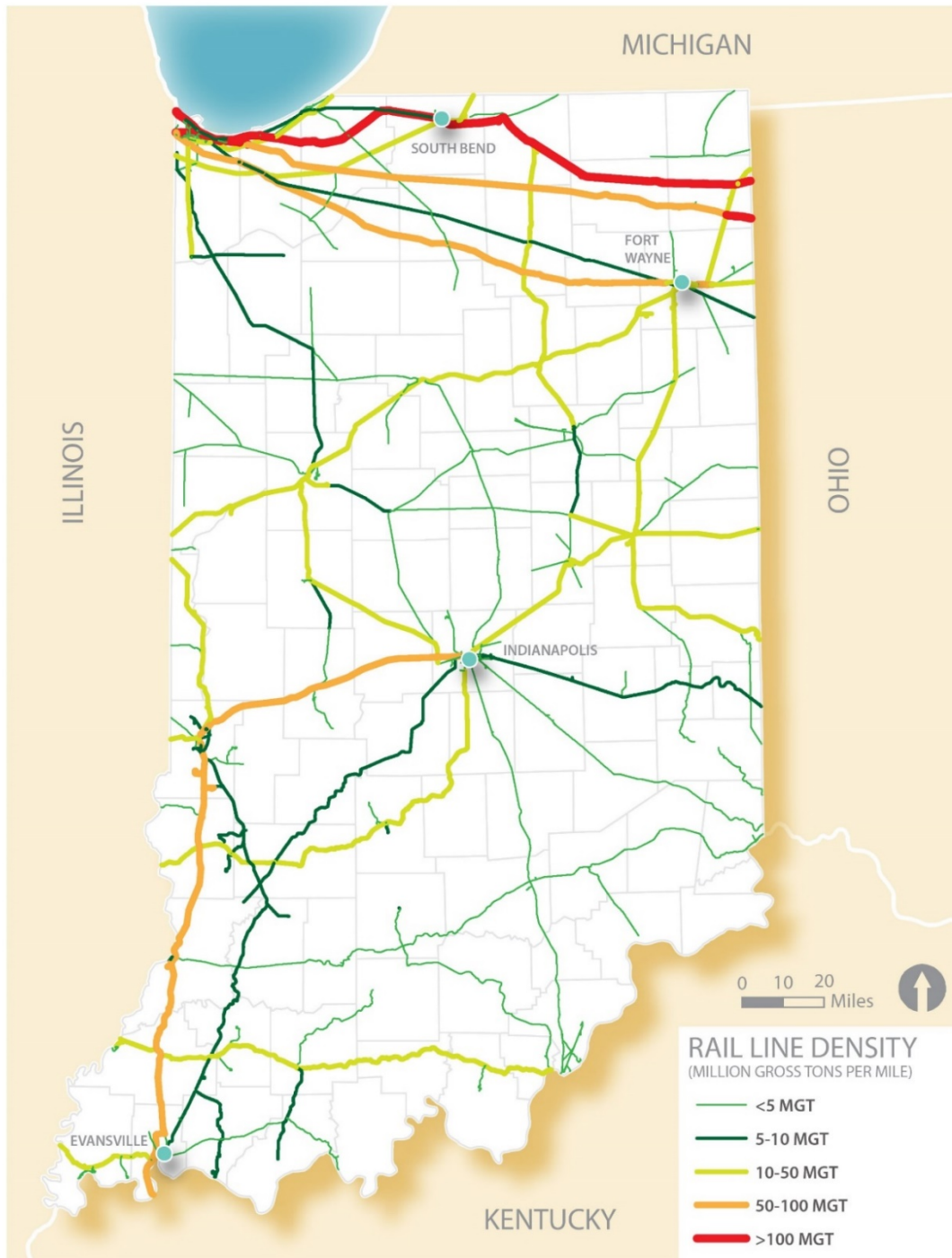
Appendix A:

Supporting Figures and Tables



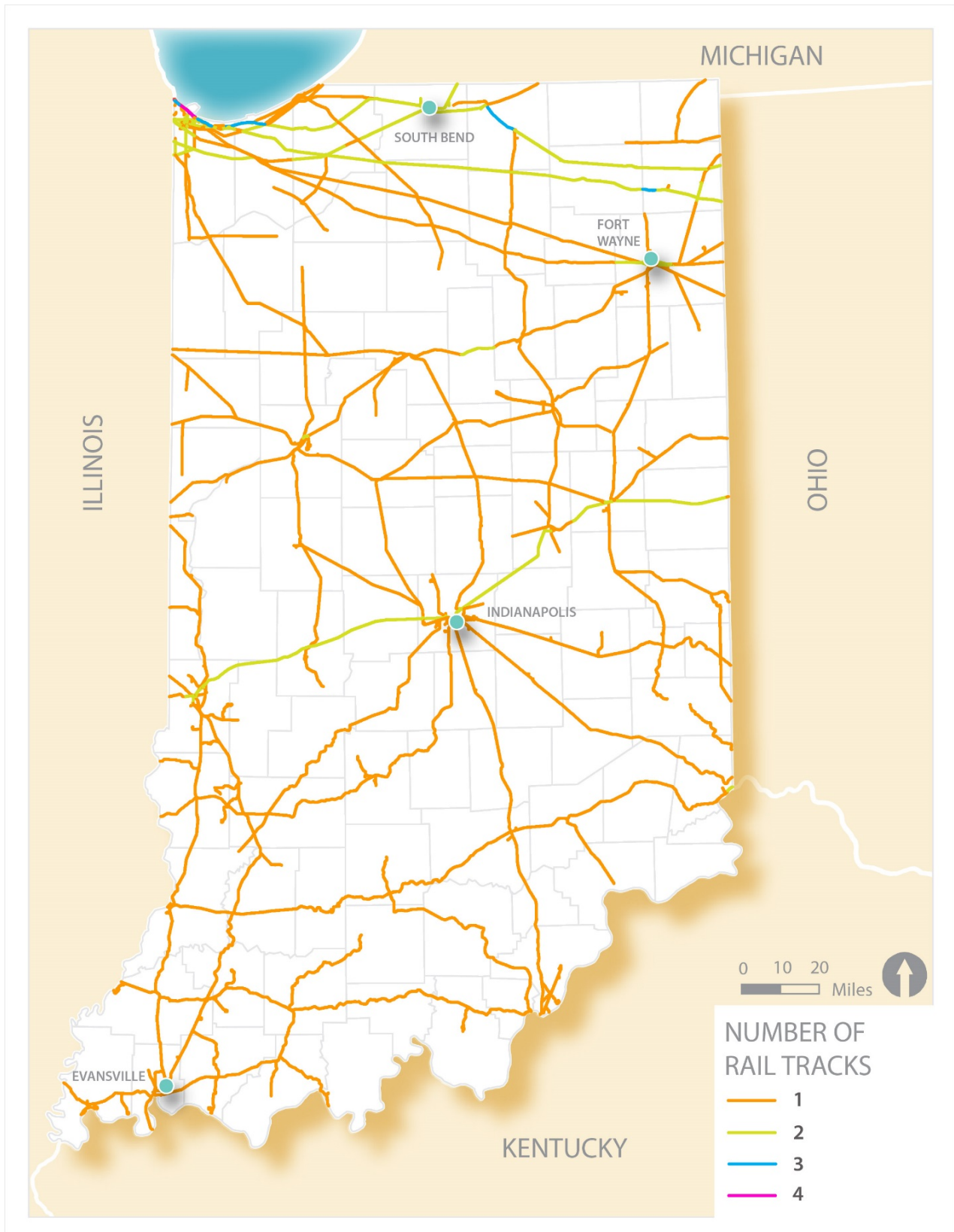
A. Appendix A: Supporting Figures and Tables

Figure A-1 – Rail Line Density on Rail Lines in Indiana



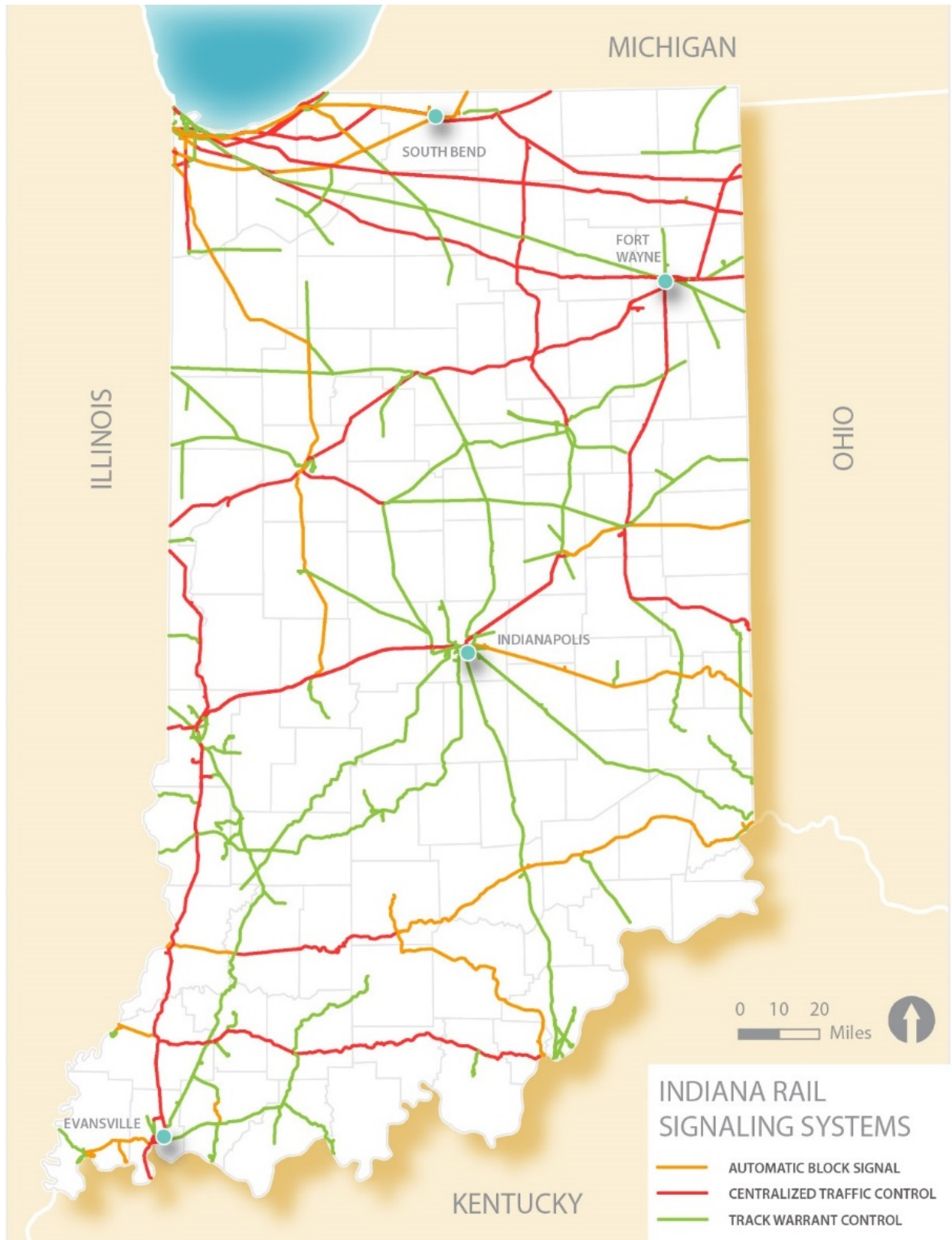
Source: 2017 Indiana State Rail Plan

Figure A-2 – Number of Tracks on Rail Lines in Indiana



Source: 2017 Indiana State Rail Plan

Figure A-3 – Signaling System of Rail Lines in Indiana



Source: 2017 Indiana State Rail Plan



Table A-1 – CSXT Subdivisions in Indiana

Subdivision	Mileage	Mileage in Indiana	End Points	Connecting CSXT Subvs.	Connections to other Railroads, trackage rights	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch	Intermodal Network?
Barr Subdivision	27	17	Willow Creek, IN and Blue Island, IL	Porter and Garrett at Willow Creek	CN, Indiana Harbor Belt, and NS at Gary, Chicago South Shore & South Bend at Miller.	Whiting Yard	No	2	60	CTC	Yes
Garrett Subdivision		126	Deshler, OH and Willow Creek, IN	Barr and Porter at Willow Creek	Chesapeake & Indiana at Wellsboro, NS at Walkerton, Milford Jct. and St. Joe	Garrett Yard	Yes	2	50-60	CTC	Yes
St. Louis Line	224	67	Indianapolis, IN and East St. Louis, IL	Indianapolis Terminal and Indianapolis Line at Indianapolis, Lafayette at Greencastle, CE&D and Danville Secondary at Terre Haute		Avon Yard, Duane Yard	No	2	60	CTC	Yes
Indianapolis Belt Subdivision	12.1	12.1	Indianapolis, IN	St. Louis Line, Indianapolis Line, Louisville Secondary, Shelbyville Secondary		Hawthorne Yard	No	1	10	TWC	



Subdivision	Mileage	Mileage in Indiana	End Points	Connecting CSXT Subvs.	Connections to other Railroads, trackage rights	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch	Intermodal Network?
Indianapolis Line	140.2	96.3	Indianapolis, IN and Bellefontaine, OH	Indianapolis Terminal, Indianapolis Subdivision, and Indianapolis Belt at Indianapolis	NS at Anderson and Muncie, Central Indiana & Western at Anderson	So. Anderson Yard		2	60	CTC and ABS	Yes
Indianapolis Terminal Subdivision	25.3	25.3	Downtown Indianapolis and Avon Yard	Indianapolis Line, Indianapolis Belt, Shelbyville Secondary, Crawfordsville Branch, St. Louis Line		Avon Yard	Yes	2	60	CTC	Yes
Illinois Subdivision	159	18.2	East St. Louis, IL and Washington, IN	Indiana Subdivision at eastern end, CE&D Subdivision at Vincennes	Indiana Southern at Chappel			1	25-35	ABS	
Indiana Subdivision	169	148.6	Washington, IN and Cincinnati, OH	Illinois Subdivision at western end, Hoosier Subdivision at Mitchell	Louisville & Indiana at Seymour, Central Railroad Co. at Lawrenceburg, Madison Railroad at North Vernon			1	25-40	CTC and ABS	



Subdivision	Mileage	Mileage in Indiana	End Points	Connecting CSXT Subvs.	Connections to other Railroads, trackage rights	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch	Intermodal Network?
CE&D Subdivision	147.5	147.5	Danville Jct., IN and South Ingle, IN	St. Louis at East Haley, Illinois at Vincennes, Evansville Terminal at North Ingle	NS at Princeton, Decatur & Eastern Illinois at Hillsdale, Vermillion Valley at Danville, INRD has trackage rights over this line	Brewer Yard near Danville, Baker Yard in Terre Haute, Alice Yard in Vincennes, Wasford Yard in Evansville		1	40-60	CTC	Yes
Grand Rapids Subdivision	114.5	18	Grand Rapids, MI and Porter, IN		NS at Porter		Yes	1	50	CTC	
Porter Subdivision	19.2		Porter and Ivanhoe	Garrett and Barr at Willow Creek	NS at Porter, Chicago, Fort Wayne & Eastern at Tolleston, Indiana Harbor Belt at Ivanhoe, CP and NS have trackage rights			1	40	CTC	
Monon Subdivision	90.1	90.1	Maynard and Lafayette Subdivision	Lafayette at its northern end	NS at St John and Shelby, CN at Dyer, Toledo, Peoria & Western at Reynolds	Monon Yard	Yes	1	40-50	ABS	



Subdivision	Mileage	Mileage in Indiana	End Points	Connecting CSXT Subvs.	Connections to other Railroads, trackage rights	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch	Intermodal Network?
Lafayette Subdivision	73.6	73.6	Farmers Crossing and Cloverdale	Monon at northern end, St. Louis Line near Greencastle, Crawfordsville Branch at Ames Jct	NS and Kankakee, Beaverville & Southern at Lafayette Junction, NS has trackage rights over line	Lafayette Yard and Monon Yard	Yes	1	40-50	ABS	
Crawfordsville Branch	33.6	33.6	Ames and Clermont	Lafayette at Ames, Frankfort at Clermont			Yes	1	49	TWC	
Frankfort Secondary	37	37	Clermont and Frankfort		NS at Frankfort			1	25	TWC	
Indianapolis Subdivision	99.6	78.3	Indianapolis, IN and Cincinnati, OH	Indianapolis Line, Indianapolis Belt and Shelbyville Secondary at western end, Cincinnati Terminal at eastern end	Big Four Terminal at Connersville, Indiana & Eastern at Cottage Grove	Connersville Yard and Cottage Grove Yard	Yes	1	40-50	ABS	



Subdivision	Mileage	Mileage in Indiana	End Points	Connecting CSXT Subvs.	Connections to other Railroads, trackage rights	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch	Intermodal Network?
Hoosier Subdivision <small>200</small>	72.2	72.2	Bedford and Indiana/Kentucky state line near Louisville	Indiana at Mitchell	NS at southern			1	30-40	ABS	
Danville Secondary	41.2	8	St. Mary's, IN to Vermillion Grove, IL	St. Louis Line at Terre Haute				1	25	TWC	
Shelbyville Secondary	28.3	28.3	Mack and Indianapolis Subdivision	Indianapolis Subdivision at Indianapolis, Indianapolis Belt Subdivision at Indianapolis	Central Railroad of Indiana at Mack	Hill Yard		1	10-25	TWC	
Louisville Subdivision	4		Indianapolis Subdivision and the Louisville & Indiana RR	Indianapolis Belt Subdivision at Dale, Indianapolis Subdivision	Louisville & Indiana at Indianapolis			1	10	TWC	

²⁰⁰ CSXT filed for the abandonment of approximately 62 miles from Bedford to New Albany



Subdivision	Mileage	Mileage in Indiana	End Points	Connecting CSXT Subvs.	Connections to other Railroads, trackage rights	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch	Intermodal Network?
Evansville Terminal Subdivision			Evansville, IN area	CE&D Subdivision				1	10	CTC	

Source: Updated information from the 2017 Indiana State Rail Plan



Table A-2 – Norfolk Southern Subdivisions in Indiana

Subdivisions	Mileage	Mileage in Indiana	End Points	Connecting NS Districts	Connections to other Railroads	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch	Intermodal Network?
Chicago Line	342.1	153	Cleveland, OH and Chicago, IL	Huntington District at Butler, Marion District at Goshen, and Kankakee Line at Gary	Amtrak at Porter, CSXT at Porter and Gary, CN at South Bend and Gary, Grand Elk and Elkhart & Western at Elkhart, Kendallville Terminal at Kendallville, Chicago South Shore and South Bend at South Bend, former EJ&E at Buffington, and Indiana Harbor Belt at Indiana Harbor	Elkhart Yard, Olivers Yard at South Bend, and Colehour Yard at Hammond	Yes	2-4	50	CTC	Yes



Subdivisions	Mileage	Mileage in Indiana	End Points	Connecting NS Districts	Connections to other Railroads	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch	Intermodal Network?
Chicago District	151.4	137.4	Fort Wayne, IN and Chicago, IL	Huntington, Fostoria and New Castle Districts at Fort Wayne, Marion District at Claypool, and Kankakee Line at Gary	Chicago, Fort Wayne & Eastern at Fort Wayne and Spriggsboro, Elkhart & Western at Argos, Chesapeake & Indiana at Thomaston, CN (former EJ&E) at Van Loon, and Indiana Harbor Belt at Gary			1	50	CTC	Yes
Fostoria District	119.2	13.7	Bellevue, OH and Fort Wayne, IN	Huntington and Chicago Districts at Fort Wayne, and Woodburn Branch at New Haven		East Wayne Yard		1	50	CTC	Yes



Subdivisions	Mileage	Mileage in Indiana	End Points	Connecting NS Districts	Connections to other Railroads	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch
Lafayette District	172	90	Peru, IN and Decatur, IL	Huntington District at Peru, Frankfort Branch at Lafayette	Vermillion Valley at Danville, CSXT and Kankakee, Beaverville & Southern at Lafayette, and Central Railroad of Indianapolis and Toledo, Peoria & Western Railway at Logansport	East Yard at Lafayette, Logansport Yard, and Peru Yard		1	50	CTC
Huntington District	107.6	86.6	Montpelier, OH and Peru, IN	Chicago Line at Butler, Chicago, Fostoria, and New Castle Districts at Fort Wayne, and Marion District at Wabash	CSXT at St. Joe and the Chicago, Fort Wayne, & Eastern at Fort Wayne	Peru Yard		1	50	CTC
Southern West District	158.4	11.6	St. Louis, MO and Princeton, IN	Southern East District at Princeton, IN	CSXT at Princeton, IN			1	50	ABS



Subdivisions	Mileage	Mileage in Indiana	End Points	Connecting NS Districts	Connections to other Railroads	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch
Southern East District	102.5	102.5	Princeton, IN and Louisville, KY area	Evansville Branch at Huntingburg, Southern West District at Princeton	CSXT at New Albany, Indiana Southern at Oakland City, Dubois County at Huntingburg, and Lucas Oil Rail Lines at Corydon Jct.	Huntingburg Yard		1	45-50	ABS
New Castle District	169.3	117.2	Mill, OH near Cincinnati and Fort Wayne, IN	Chicago District at Fort. Wayne, Huntington District at Hugo, and Frankfort District at Muncie	CSXT at Muncie, the Chicago, Fort. Wayne & Eastern at Fort Wayne, the Wabash Central at Bluffton, the C&NC at New Castle, and the Indiana Eastern at Richmond			1	50	CTC



Subdivisions	Mileage	Mileage in Indiana	End Points	Connecting NS Districts	Connections to other Railroads	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch
Marion District	111	111	Goshen and Anderson	Chicago Line at Goshen, Chicago District at Claypool, Huntington District at Wabash, Red Key line at Marion, and Frankfort District at Alexandria	CSXT at Milford and Anderson, to the Chicago, Fort. Wayne & Eastern at Warsaw, the Central Railroad of Indianapolis at Marion, and the Central Indiana & Western at Anderson			1	45-50	CTC
Frankfort District	97.3	97.3	Frankfort and Hale	Frankfort Branch at Frankfort, the Marion Branch at Alexandria, the New Castle District at Muncie, and the Red Key Branch at Red Key	CSXT at Frankfort and Muncie			1	49	TWC



Subdivisions	Mileage	Mileage in Indiana	End Points	Connecting NS Districts	Connections to other Railroads	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch
Frankfort Branch	24	24	Frankfort and Lafayette	Frankfort District at Frankfort and Lafayette District at Lafayette		Frankfort Yard and East Yard at Muncie		1	49	CTC
Kankakee Line	27.1	27.1	Indiana Harbor Belt Railroad at Gibson and Schneider	Chicago District at Osborne and Kankakee Branch at Schneider	IJB at Gibson, CN at Hays, CN (former EJ&E) at Hartsdale, and CSXT at St. John			1	35-45	CTC
Kankakee Branch	130	31.2	Nipsco, IN and Hennepin, IL	Kankakee Line at Schneider	CSXT at Shelby			1	30	TWC
Evansville Branch	46.8	46.8	Evansville to Huntingburg	Yankeetown Branch at Boonville, Rockport Branch at Rockport Jct., and Southern East District at Huntingburg	CSXT at Evansville, Hoosier Southern at Lincoln City			1	35	TWC



Subdivisions	Mileage	Mileage in Indiana	End Points	Connecting NS Districts	Connections to other Railroads	Local Service Yard	Amtrak Route?	No. Tracks	Max Freight Speed	Dispatch
Rockport Branch	13	13	Rockport and Rockport Jct.	Evansville Branch at Rockport Jct.				1	25	TWC
Yankeetown Branch			Lynnville and Warrick	Evansville Branch at Boonville	Indiana Southern at Lynnville			1		TWC

Source: Updated information from the 2017 Indiana State Rail Plan



Table A-3 – Short Line Railroads

Short Line Railroads	Indiana Miles Leased	Indiana Miles Owned	Indiana Miles Operated	FRA Track Class	End Points	Owner	Operator	Interchanges	Major Commodities
Bee Line Railroad	0	11	11	Excepted	Handy and Steward	Stewart Grain	KBS	KBS at Steward	Corn, soybeans
Central Railroad Company of Indiana	0	64	64	3 miles Class 1, 61 miles Class 2 and higher	Shelbyville and Cincinnati	Genesee & Wyoming		CSXT and NS at Cincinnati, OH, CSXT at North Bend, OH, IORY at Cincinnati, OH	Automobiles, pig iron
Central Railroad Company of Indianapolis	16	28	39	Class 1	Kokomo and Amboy	Genesee & Wyoming	NS between Kokomo and Tipton, TPW between Amboy-Marion and Kokomo-Marion, CIND between Frankfort and Kokomo	NS and KR at Kokomo, NS at Marion	Grain, fertilizer
Chicago, Fort Wayne & Eastern Railroad	159	0	159	17.4 mile Excepted, 141.8 Class 2 or higher	Tolleston, IN and Crestline, OH	Genesee & Wyoming	NS	NS at Ft. Wayne	Soybean meal, steel
Chesapeake & Indiana Railroad	28	0	28	Class 1	La Crosse, Malden, North Judson and Wellsboro	Michigan & Bluegrass Rail LLC	CKIN	NS at Thomason, CSXT at Wellsboro	Grain and fertilizer
Chicago South Shore, & South Bend Railroad	6	55	102	50 miles Class 1, 75 miles Class 2 or higher	Chicago, IL and Kingsbury, IN	Anacostia Rail Holdings Company	Chicago, South Shore, & South Bend RR	CSXT at Miller, NS at South Bend, CN at Gary	Coal, steel



Short Line Railroads	Indiana Miles Leased	Indiana Miles Owned	Indiana Miles Operated	FRA Track Class	End Points	Owner	Operator	Interchanges	Major Commodities
City of Auburn Port Authority	0	2	2	Excepted	Auburn Jct. and Auburn	City of Auburn	CSXT	CSXT at Auburn Jct.	Plastic resin
Decatur & Eastern Illinois Railroad	0	7	17	Class 2 or higher	Terre Haute, IN, Hillsdale, IN, Decatur, IL	Watco Companies		CSXT at Terre Haute, IN; UP, CP and NS in Illinois	Corn
Dubois County Railroad	0	7	7	Excepted	Huntingburg to Dubois	Indiana Railway Museum		NS at Huntingburg	Oil, non-hazmat
Elkhart & Western Railroad Co.	23	19	42	9.5 miles Excepted, 22.5 miles Class 1, 10 miles Class 2 or higher	Walkerton and Argos	Pioneer Lines		NS at Elkhart and Argos	Mineral and stone, chemicals and plastics
Evansville Western Railway	0	30	30	5.5 miles Class 1, 24 miles Class 2 or higher	Evansville, IN and Okawville, IL, Rochester and Argos	P&L Transportation		CSXT at Evansville	Coal, grain
Fulton County Railroad	0	12	0	Not Reported	Rochester and Argos	Fulton County, LLC	Elkhart & Western Railroad Co.	NS at Argos	Fertilizer, grain, scrap metal
Grand Elk Railroad	13	0	13	Not Reported	Elkhart, IN and Grand Rapids, MI	Watco Companies		NS at Elkhart	Paper, plywood
Hoosier Southern Railroad (Perry)	0	26	22	1.8 miles Excepted, 20.5 miles Class 1, 1.5	Lincoln City and Cannelton	Perry County Port Authority		NS at Lincoln City	Pig iron, foundry sand



Short Line Railroads	Indiana Miles Leased	Indiana Miles Owned	Indiana Miles Operated	FRA Track Class	End Points	Owner	Operator	Interchanges	Major Commodities
County Port Authority)				miles Class 2 or higher					
Indiana Eastern Railroad LLC	43	0	31	Class 2 or higher	Richmond, IN and Fernald, OH	Respondek Railroad	NS between Richmond and Boston	CSXT at Cottage Grove	Chemicals, petroleum
Indiana Northeastern Railroad	0	45	45	12.7 miles Class 1, 32.5 miles Class 2 or higher	South Milford and Montpelier, OH, Steubenville, IN and Hillsdale, MI			NS at Montpelier	Grain, flour
Indiana & Ohio Railway Company	0	19	19	Excepted	Brookville, IN and Valley Junction, OH	Genesee & Wyoming		CIND, CSXT, and NS at Cincinnati, OH	Grain, scrap steel
Indiana Southern Railroad	0	165	150	95.7 miles Class 1, 54.6 miles Class 2 or higher	Indianapolis and Evansville	Genesee & Wyoming	INRD between Elnora and Washington, CSXT and INRD between Washington and Lynnville	CSXT at Indianapolis and Evansville, NS at Oakland City Jct., Indiana Rail Road Company at Bee Hunter and Switz City	Coal, grain
Kankakee, Beaverville & Southern Railroad	0	64	64	Class 2 or higher	Kankakee, IL, Danville, IL and Lafayette, IN Branch lines between Sheff and Free, and between Handy and Steward			CSXT and NS at Lafayette	Corn, fertilizer



Short Line Railroads	Indiana Miles Leased	Indiana Miles Owned	Indiana Miles Operated	FRA Track Class	End Points	Owner	Operator	Interchanges	Major Commodities
Kokomo Railroad	13	0	13	Excepted	Kokomo and Logansport, Logansport and Bringhurst, Amboy and Marion	Kokomo Grain Co., Genesee & Wyoming		NS at Logansport, Clymers and Marion, with Toledo, Peoria & Western Railway at Logansport, and the Central Railroad of Indianapolis at Kokomo	Grain
Louisville & Indiana Railroad Company	0	107	104	Class 2 or above	Indianapolis, IN and Louisville, KY	Anacostia Rail Holdings Company		NS, CSXT at Indianapolis, Seymour, and Jeffersonville, Indiana Rail Road Company at Indianapolis	Resin, agricultural products
Madison Railroad (City of Madison Port Authority)	0	41	26	8 miles Class 1, 18 miles Class 2 or above	Madison and North Vernon	City of Madison Port Authority		CSXT at North Vernon	Polyethylene, steel coils
Ohio Valley Railroad Company	3	0	3	Excepted	Evansville area	Ohio Valley Railroad Co.		Indiana Southwestern Railroad at Evansville	Railroad equipment moving on own wheels, molasses
Southern Indiana Railway	0	8	5	Class 2 or above	Watson, Sellersburg, and Speed			CSXT at Watson	Cement



Short Line Railroads	Indiana Miles Leased	Indiana Miles Owned	Indiana Miles Operated	FRA Track Class	End Points	Owner	Operator	Interchanges	Major Commodities
Toledo, Peoria & Western Railway	0	61	61	22.3 miles Class 1; 39 miles Class 2 or higher	Logansport to Mapleton, IL; Trimmer Jct. and Winamac; North Judson and Monterey	Genesee & Wyoming	Central RR of Indianapolis between Van and Logansport	CSXT at Reynolds, NS at Logansport and Marion, the Central Railroad of Indianapolis at Kokomo, and US Rail Corp. at Logansport and Van Jct	Grain, construction aggregates

Source: Update of 2017 Indiana State Rail Plan based on Survey of Class III Railroads and HDR analysis



Table A-4 – Switching and Terminal Railroads

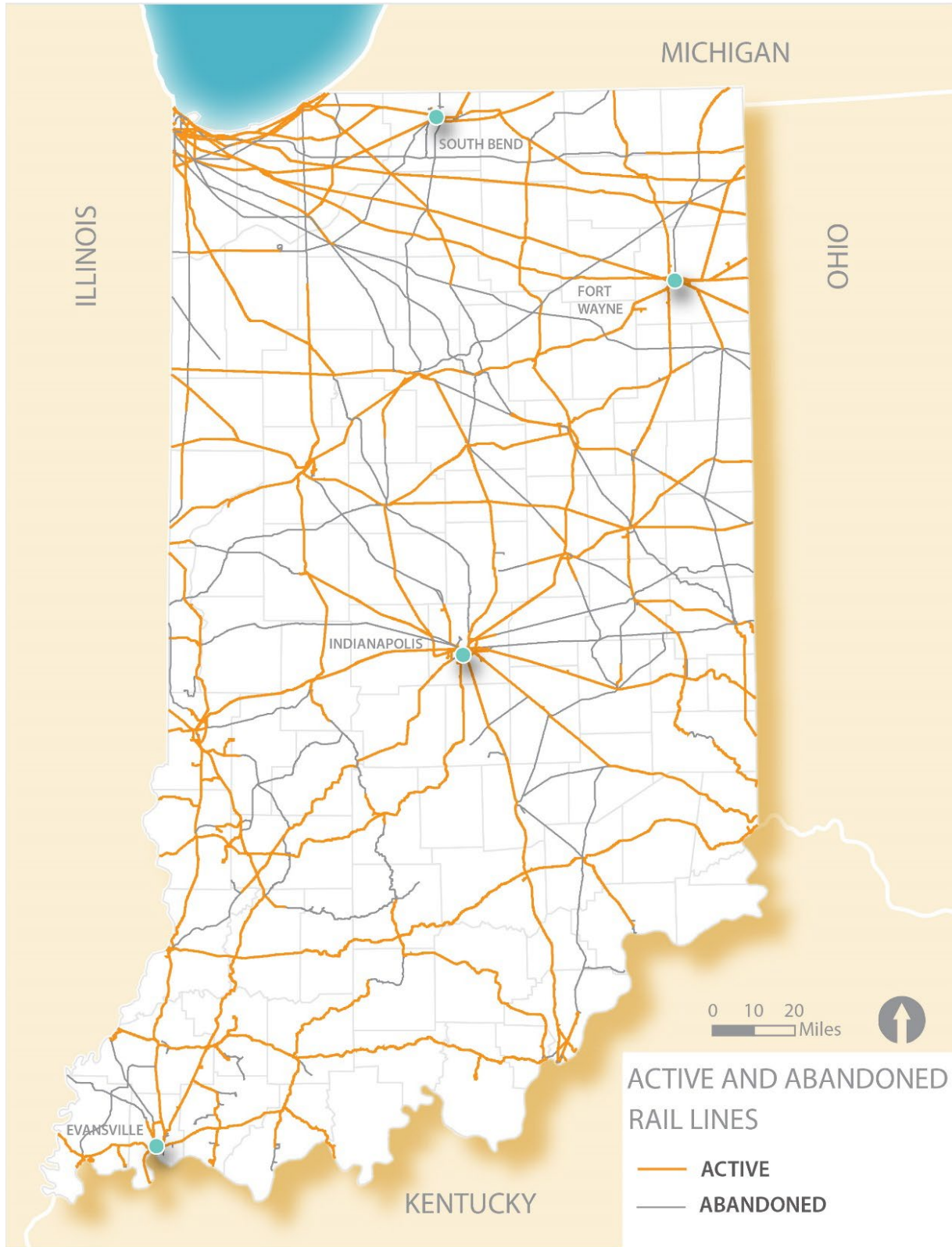
Switching and Terminal Railroads	Indiana Miles Leased	Indiana Miles Owned	Indiana Miles Operated	FRA Track Class	End Points	Owner	Operator	Interchanges	Major Commodities
Big Four Terminal Railroad, LLC	5	0	5	Class 1	Connersville and Beesons	RMW Ventures	Big Four Terminal Railroad	CSXT at Connersville, C&NC at Beesons	Locomotives for repair
C & NC Railroad Corporation	21	0	21	1.2 miles Class 1, 18 miles Class 2 or higher	Connersville and New Castle		C&NC Railroad	NS at New Castle	Foundry sand
Central Indiana & Western Railroad	0	9	9	Excepted	Anderson and Lapel		Central Indiana & Western Railroad	CSXT at Anderson	Silica sand, soda ash
Indian Creek Railroad	0	5	5	Excepted	Anderson and Florida	Kokomo Rail, LLC	Indian Creek Railroad	NS at Panhandle Jct. north of Anderson	Corn, soybeans
Indiana Harbor Belt Railroad	26	28	15	Class 2 or higher	Franklin Park, IL and Hammond, IN	CR (51%) CP (49%)	UP, CP, and CN	CSXT, NS, CP, CN, UP, BNSF, UP	Steel products, chemicals and petroleum products
Indiana Southwestern Railway Co.	0	4	4	3 miles Excepted, 0.8 miles Class 1	Evansville and Cynthiana	Pioneer Lines		NS, CSXT at Evansville	Chemicals, plastics
Kendallville Terminal Railway Co.	0	1	1	Excepted	Kendallville	Pioneer Lines		NS at Kendallville	Food and kindred products, chemicals & plastics
Lucas Oil Rail Lines	0	10	10	9 miles Excepted	Corydon and Corydon Jct.	Lucas Oil Co.		NS at Corydon Jct.	Petroleum lubricating oil, silica sand
Michigan Southern Railroad Company d/b/a Napoleon,	0	5	5	Excepted	Woodburn, IN and Liberty Center, OH	Pioneer Lines	Michigan Southern Railroad Company	NS at Woodburn	Food and kindred products, chemicals & plastics



Switching and Terminal Railroads	Indiana Miles Leased	Indiana Miles Owned	Indiana Miles Operated	FRA Track Class	End Points	Owner	Operator	Interchanges	Major Commodities
Defiance & Western Railway									
MG Rail, Inc.	11	0	4	Class 1	Watson to Port of Indiana	Consolidated Grain and Barge	MG Rail	CSXT at Watson	Steel, fertilizer
Vermillion Valley Railroad	6	0	6	Excepted	Olin, IN and Danville, IL	Michigan & Bluegrass Rail LLC	Vermillion Valley Railroad Company	CSXT, KBSR, and NS at Danville	
Wabash Central Railroad	27	0	27	Excepted	Van Buren and Craigsville			NS at Bluffton	Soybean hulls, popcorn
Winamac Southern Railway	44	0	44	20.5 miles Excepted, 23.5 miles Class 2 or higher	Logansport and Kokomo, Logansport and Bringhurst	Kokomo Grain Co., Genesee & Wyoming		NS at Logansport, NS and Central Railroad Company of Indianapolis at Kokomo	Grain, fertilizer

Source: Update of 2017 Indiana State Rail Plan based on Survey of Class III Railroads and HDR analysis

Figure A-4 – Active and Abandoned Rail Lines in Indiana



Source: 2017 Indiana State Rail Plan



Table A-5 – Truck Rail Transload Facilities in Indiana

Facility	Location	Serving Railroad	Commodities
L&M Storage	East Chicago	IHB	Building Materials
Buckeye Partners	East Chicago	IHB	Industrial Liquid
Steel Warehouse	East Chicago	IHB	Metals
CSXT Transflo East Chicago	East Chicago	CSXT	Liquid Bulk
United Transportation Group	East Chicago	IHB	Transloading, Car Cleaning
Elkhart	Elkhart	EWR	Building Materials, Aggregates
Thoroughbred Bulk Terminal	Elkhart	NS	Liquid Bulk, Dry Bulk, Aggregates
Harwood Yard	Evansville	OVR	General
Spectrum Logistics	Evansville	ISRR	
Indiana Southwestern Yard	Evansville	ISW	Plastics
Morton Warehousing, LLC	Evansville	CSXT	Plastics, Aggregates, General
CSXT Transflo Evansville	Evansville	CSXT	Liquid Bulk
VP Warehousing	Fort Wayne	NS	General
Commercial Warehouse & Cartage	Fort Wayne	NS	Automotive, HVAC, Electrical
Thoroughbred Bulk Terminal	Fort Wayne	NS	Liquid Bulk, Dry Bulk, Aggregates
Tristate Warehousing, Inc.	Fort Wayne	NS	General
National Industrial Lumber	Gary	IHB	Building Materials
Partners Metals Warehouse	Gary	IHB	Metals
Brunk Corp/AJP Corp	Goshen	NS CSXT	Liquid Bulk
Savage Services	Hammond	IHB	Food Grade & Industrial Liquids



Facility	Location	Serving Railroad	Commodities
Midwest Terminal Services	Hammond	IHB	Metals
Kinder Morgan	Hammond	IHB	Metals
Wolf Lake Terminal	Hammond	IHB	Metals
Watco Transload	Hammond	NS, IHB	Climatic Steel
Savage Services Group	Hammond	IHB	Liquid, Dry Bulk, Food Grade
INRD Transload Services	Indianapolis	INRD	Building Materials, Steel, Bulk
Progressive Logistics	Indianapolis	CSXT	General
MWCold	Indianapolis	INRD	General, Food Grade
Piper Logistics Warehousing	Indianapolis	CSXT	General
CSXT Transflo Indianapolis	Indianapolis	CSXT	Liquid Bulk
Venture Logistics	Indianapolis	INRD	General, Food Grade, Paper
Jeffersonville Transfer Yard	Jeffersonville	LIRC	Plastics, Building Materials
LIRC Transfer	Jeffersonville	LIRC	General, Team Tracks Public
Tanco Clark Maritime	Jeffersonville	LIRC	Liquid Bulk
A&R Transport	Jeffersonville	LIRC	Dry Bulk
Kendallville Terminal	Kendallville	KTR	Syrup, Sugar
KL Chempak Inc	La Porte	Multiple	Liquid Bulk
Hanson Logistics	Lafayette	NS	Refrigerated
Merom Transload	Merom	INRD	Soda Ash
Arrow Reload, Odon Transload	Odon	INRD	Lumber Products
First Class Services	Petersburg	ISRR	
Frick Services	Portage	IHB	Industrial Dry Bulk



Facility	Location	Serving Railroad	Commodities
Tanco Terminals	Portage	IHB	Industrial Liquid
Lakes & Rivers Transfer	Portage	IHB	Metals
Plastic Express	Remington	TPW	Plastic
Smith Transport	Remington	TPW	General, Food Grade
CO-Alliance, LLP	Reynolds	TPW	Flat, Silo, Liquid Fertilizer
South Bend Team Track	South Bend	CSS	General
Speed Transload	Speed	LIRC	Lumber, Steel
Flash	Troy	NS CSXT	Dry Bulk
TPW Hoosier Lift	Wolcott	TPW	Transload, Reload Overdimension

Source: Update of 2017 Indiana State Rail Plan based on HDR analysis



Table A-6 – Grain Elevators and other Rail-Served Agricultural Facilities in Indiana

Name	Location	Serving Railroad
Kokomo Grain Co.	Amboy	NS
Kokomo Grain Co.	Anderson	NS
ADM/Countrymark Inc.	Attica	NS
Agland Grain	Bluffton	NS
Cargill Inc.	Boston	IERR
ADM Grain Co.	Brookston	CSXT
Gavilon Grain LLC	Carlisle	CSXT
AG Plus Inc.	Columbia City	NS
Ceres Solutions LLP	Crawfordsville	NS
Bunge Central Soya Co. Inc.	Decatur	CF&E
Harvest Land Coop	Decatur	NS
The Andersons Inc.	Delphi	NS
The Andersons, Inc.	Dunkirk	NS
Shideler Grain	Eaton	NS
Kokomo Grain Co.	Edinburg	LIRC, NS
Harvest Land Coop	Elwood	NS
Kokomo Grain Co.	Emporia	CSXT
ADM Growmark Inc.	Evansville	CSXT



Name	Location	Serving Railroad
United Cooperative	Fairmount	NS
Bunge	Fort Wayne	NS
ADM/Countrymark, Inc.	Fowler	KBSR
Wabash Valley Grains	Francisco	NS
Co-Alliance LLP	Frankfort	NS
EMDE Warehouse and Processing	Gary	BNSF
Co-Alliance	Goodland	TPW
Starke County Coop	Hamlet	CF&E
Gavilon Grain LLC	Haw Creek Siding	CSXT
Consolidated Grain & Barge	Jeffersonville	CSXT, NS
Starke County Coop	Knox	NS
Kokomo Grain Co., Inc.	Kokomo	NS
Vermont Feed & Grain Co.	Kokomo	NS
Cargill	Linden	CSXT
ADM/Countrymark Inc.	Logansport	NS
Archer Daniels Midland Co.	Logansport	NS
The Andersons Inc.	Logansport	NS
Co-Alliance	Malden	CKIN



Name	Location	Serving Railroad
Central States Enterprises LLC	Montpelier	NS
Gavilon Grain Inc.	New Carlisle	NS
ADM/Ag One	New Castle	NS
Central States Enterprises LLC	New Haven	NS
Andersons Grain and Ethanol	Oakville	NS
Gibson Co. Farm Bureau Cooperative	Owensville	EWR
Cornelius	Odon	INRD
ADM Grain	Parr	CSXT
Boyd Grain	Plainville	NS
Gavilon Grain LLC	Pleasant Ridge	CSXT
The Andersons Inc.	Poneto	NS
Cargill Inc.	Portage	IHB, NS
Cargill	Princeton	NS
Consolidated Grain & Barge	Princeton	NS
AGMAX	Remington	TPW
Ex-Cel Coop	Reynolds	TPW
Harvest Land Coop	Richmond	NS
Gavilon Grain LLC	Roachdale	CSXT



Name	Location	Serving Railroad
Wilson Fertilizer & Grain	Rochester	NS
Gavilon Grain LLC	Shellburn	CSXT
Ceres Midland Inc.	Sims	NS
South Milford Grain Co.	South Milford	NS
Sullivan Grain Co.	Sullivan	CSXT
Gavilon Grain LLC	Terre Haute	CSXT, INRD
Cargill Inc.	Tipton	NS
Agrex Inc.	Wabash	NS
North Central Coop	Wabash	NS
Salamonie Mills	Warren	NS
Bunge North America	Waterloo	NS
Co-Alliance	Wellsboro	CKIN
Stewart Grain	Williamsport	NS
Kokomo Grain Co.	Winamac	NS
ADM Growmark	Winslow	NS
EMP Coop	Woodburn	NS
Yoder Grain Inc.	Yoder	NS

Source: Update of 2017 Indiana State Rail Plan based on HDR analysis



Table A-7 – Summary of Intercity Passenger Rail Stations in Indiana

Location	Hammond-Whiting	Michigan City	South Bend	Elkhart	Waterloo
Owner	Amtrak (facility and parking) / Norfolk Southern Railway (platform and tracks)	Amtrak	Northern Indiana Commuter Transportation District (facility and parking) / Norfolk Southern Railway (platform and tracks)	City of Elkhart (facility and parking)/ Norfolk Southern Railway (platform and tracks)	Amtrak (facility)/ Norfolk Southern Railway (parking, platform, and tracks)
Address	1135 North Calumet Avenue Hammond, IN 46320	100 Washington Street Michigan City, IN 46360	2702 West Washington Avenue, South Bend, IN 46628	131 Tyler Avenue Elkhart, IN 46515	485 West Van Vleek Street Waterloo, IN 46793
Served by	<i>Wolverine</i>	<i>Wolverine</i>	<i>Capitol Limited</i> and <i>Lake Shore Limited</i>	<i>Capitol Limited</i> and <i>Lake Shore Limited</i>	<i>Capitol Limited</i> and <i>Lake Shore Limited</i>
Service Frequency by Route	<i>Wolverine</i> : Once per day to Pontiac. Twice per day to Chicago	<i>Wolverine</i> : Twice per day to Pontiac. Once per day to Chicago	<i>Capitol Limited</i> : Once per day <i>Lake Shore Limited</i> : Once per day	<i>Capitol Limited</i> : Once per day <i>Lake Shore Limited</i> : Once per day	<i>Capitol Limited</i> : Once per day <i>Lake Shore Limited</i> : Once per day
Station Location Type	Suburban	Suburban	Urban	Suburban	Rural
Flag Stop	Regular stop	Regular stop	Regular stop	Regular stop	Regular stop
Shelter	Modern brick and metal structure built by Amtrak in the early 1980s, opened in 1982	Platform only	Utilitarian one-story concrete block structure built in 1970	Historic two-story depot, of red brick and limestone, constructed in 1900	Historic single- story wooden depot constructed in 1883 and restored in 2016
ADA	Station platform and parking lot is wheelchair accessible; station waiting room is not accessible; wheelchair lift available	Partially ADA compliant; station platform and parking lot is accessible; wheelchair lift available	Fully wheelchair accessible. Wheelchair lift available.	Fully wheelchair accessible: no barriers between platform and train. Wheelchair lift available.	Fully wheelchair accessible; wheelchair lift available



Location	Hammond-Whiting	Michigan City	South Bend	Elkhart	Waterloo
Depot Hours	Monday to Friday: 12 pm to 5 pm; weekend closed	No station hours	Daily 7 am to 11 am; 8 pm to 1 am	Daily 6 am to 9 am; 9 pm to 1:39 am. Open for train arrivals and departures	Daily 5 am to 7:30 am; 9 pm to 1:15 am
Baggage Service	No baggage service	No baggage service	Checked baggage service	No baggage service	No baggage service
Restrooms	No restrooms	No restrooms	Open during station hours	Open for train arrivals and departures	Open during station hours
Ticketing	No ticketing	No ticketing	Staffed counter	No ticketing	No ticketing
Telephones	No telephones	No telephones	Payphone available during station hours	No telephones	No telephones
Shared Uses	No shared use	No shared use	No shared use	No shared use	No shared use
Parking	Short term parking on street adjacent to station for passengers; long term pay parking available from private lot	Short and long term parking available adjacent to station	Unattended long term and short term parking available	Unattended long term and short term parking available	Unattended long term and short term parking available
Thruway	No Thruway connection	No Thruway connection	No Thruway connection	No Thruway connection	No Thruway connection
Transit Connections	N/A	Michigan City Transit Route 1 - 5 min walk away	Transpo (South Bend Public Transportation Corporation) – 3 min walk away	Interurban Trolley – 2 min walk away	N/A

Source: Amtrak website; Great American Stations website; 2017 Indiana State Rail Plan



Table A-8 – Summary of Intercity Passenger Rail Stations in Indiana (Continued)

Location	Dyer	Rensselaer	Lafayette	Crawfordsville	Indianapolis	Connersville
Owner	Amtrak (facility and parking) / CSXT (platform and tracky)	Amtrak (facility) / CSXT (parking, platform, and track)	City of Lafayette (facility and parking) / CSXTT (platform and tracks)	Amtrak (facility) / CSXT (parking, platform, and tracks)	City of Indianapolis	City of Connersville (facility) / Amtrak (platform) / CSXT (parking and tracks)
Address	913 Sheffield Avenue Dyer, IN 46311	776 North Cullen Street Rensselaer, IN 47978	200 North Second Street Lafayette, IN 47901	400 North Green Street Crawfordsville, IN 47933	350 South Illinois Street Indianapolis, IN 46225	1012 Eastern Avenue Connersville, IN 47331
Served by	<i>Cardinal</i>	<i>Cardinal</i>	<i>Cardinal</i>	<i>Cardinal</i>	<i>Cardinal</i>	<i>Cardinal</i>
Service Frequency by Route	<i>Cardinal</i> : Three times per week	<i>Cardinal</i> : Three times per week	<i>Cardinal</i> : Three times per week	<i>Cardinal</i> : Three times per week	<i>Cardinal</i> : Three times per week	<i>Cardinal</i> : Three times per week
Station Location Type	Suburban	Rural	Urban	Suburban	Urban	Rural
Flag Stop	Regular stop	Regular stop	Regular stop	Flag stop	Regular stop	Regular stop
Shelter	Red brick one-story shelter with benches and canopies built in 2014	Red brick and stone trim, one-story passenger shelter with benches and gabled roof constructed in 2013	Romanesque style brick “Big Four” depot was built in 1902; relocation to current site and restoration completed in 1995	Enclosed shelter on the platform	Modern intermodal Indianapolis station sits south of the historic 1888 Indianapolis Union Station, under a 1979 concrete train shed; waiting room	Brick shelter on the platform
ADA	Fully ADA compliant; wheelchair lift available.	Accessible platform, waiting area, and parking;	Station platform and facilities are wheelchair accessible,	Minimally ADA compliant; wheelchair lift is not available	Fully ADA compliant. Wheelchair lift available.	Partially ADA compliant; wheelchair lifts is available



Location	Dyer	Rensselaer	Lafayette	Crawfordsville	Indianapolis	Connersville
		wheelchair lift available	station parking is not accessible; wheelchair lift available			
Depot Hours	No station hours	No station hours	Daily 6 am to 8 am; 8 pm to 10:30 pm	No station hours	Hours vary by day. Generally opened at least 1 hour prior to arrival of eastbound train to New York and at least 1 hour or more prior to arrival of westbound train to Chicago	No station hours
Baggage service	No baggage service	No baggage service	No baggage service	No baggage services	Checked baggage service	No baggage service
Restrooms	No restrooms	No restrooms	Restrooms available during station hours	No restrooms	Restrooms available	No restrooms
Ticketing	No ticketing	No ticketing	Quik-Trak self-serve ticketing kiosk	No ticketing	Staffed counter	No ticketing
Telephones	No telephones	No telephones	Payphones during station hours	Payphones available	Payphones available	No telephones
Shared Uses	No shared use	No shared use	No shared use	No shared use	Set above an intermodal station shared with intercity buses	No shared use
Parking	Free short and long term parking available for passengers adjacent to the station	Free short and long term parking available for	City parking available for passengers; long term parking requires permit	Unattended short and long term parking available for passengers adjacent to station	Public parking available at Crowne Plaza Hotel at station	Unattended parking available adjacent to shelter



Location	Dyer	Rensselaer	Lafayette	Crawfordsville	Indianapolis	Connersville
		passengers adjacent to the station				
Intermodal	No Thruway connection	No Thruway connection	No Thruway connection	No Thruway connection	Thruway and Greyhound connection	No Thruway connection
Transit Connections	N/A	N/A	CityBus – 1 min walk away	N/A	IndyGo Bus – 7 min away	N/A

Source: Update from 2017 Indiana State Rail Plan, Amtrak, Great American Stations



Table A-9 – Summary of NICTD Stations in Indiana

Location	Hammond	East Chicago	Gary/Chicago Airport	Metro Center (Gary)	Miller (Gary)	Portage/Ogden Dunes
Owner	NICTD	NICTD	NICTD	NICTD (platform and track) / City of Gary (facility)	NICTD	NICTD
Address	4531 Hohman Avenue Hammond	5615 Indianapolis Boulevard East Chicago	Also known as Clark Rd. located near 2nd Ave., approximately 1 mile from Airport terminal	Adam Benjamin Metro Center - 200 West 4th Avenue Gary	Lake Street and U.S. Highway 12 Gary	Hillcrest Road and U.S. Highway 12
Service Frequency (Weekdays)	18 round trips (Westbound and Eastbound)	18 round trips (Westbound and Eastbound)	15 round trips (Westbound and Eastbound)	17 (Westbound), 19 (Eastbound)	12 (Westbound), 14 (Eastbound)	12 (Westbound), 13 (Eastbound)
Station Location Type	Urban	Suburban	Suburban	Urban	Suburban	Suburban
Flag Stop	Regular stop	Regular stop	Flag stop	Regular stop	Regular stop	Regular stop
Shelter	Open air platform with adjacent station building including restrooms. Remodeled station house. Bicycle accessible	Open air platform with adjacent station building including restrooms. Umbrella platform shelter	3 plexi-glass shelters	Umbrella platform shelter attached to a transit center serving intercity and local buses. Small market on main floor	Small enclosed shelter. Brick and tile	ADA shelter only
Agent Hours	No agent	No agent	No agent	No agent	No agent	No agent
Ticketing/Ticket Vending Machine (TVM)	TVM available	TVM available	TVM available	TVM available	TVM available	TVM available
ADA	ADA Compliant. High level boarding platform.	ADA Compliant. High level boarding platform.	Not wheelchair accessible.	ADA Compliant. Low level platform with mobile wheelchair lift	Not wheelchair accessible.	ADA Compliant. Low level platform with high level platform locations
Parking	Parking Spaces: 718 free	Parking spaces: 1,200 free	Parking spaces: 56 free	Parking spaces: 224; \$1.00 daily fee	Parking spaces: 248 free	Parking Spaces: 230 free



Location	Hammond	East Chicago	Gary/Chicago Airport	Metro Center (Gary)	Miller (Gary)	Portage/Ogden Dunes
Intermodal		East Chicago Public Transit buses	Access to airport by shuttle service	Greyhound intercity buses; Gary Public Transportation Corp. buses	Gary Public Transportation Corp. buses	
Time Zone	Central	Central	Central	Central	Central	Central

Source: NICTD; updates from 2017 Indiana State Rail Plan



Table A-10 – Summary of NICTD Stations in Indiana (Continued)

Location	Dune Park (Chesterton)	Beverly Shores (Porter Co.)	11th Street (Michigan City)	Carroll Avenue (Michigan City)	Hudson Lake (LaPorte Co.)	South Bend Airport
Owner	NICTD	NICTD (platform and track); NICTD maintains station but does not own it	NICTD	NICTD	NICTD	Leased by NICTD
Address	33 East U.S. Highway 12 Chesterton (Junction of Indiana Route 49 and U.S. Highway 12)	U.S. Highway 12 and Broadway Street	114 East 11th Street Michigan City	503 North Carroll Avenue Michigan City - (219) 874-4221 ext 247	County Road 700N and Chicago Road	4477 Progress Drive -- (Off of W. Lincolnway) - (574) 233-3111
Service Frequency	13 (Westbound), 14 (Eastbound)	9 (Westbound), 13 (Eastbound)	11 (Westbound), 14 (Eastbound)	15 (Westbound), 16 (Eastbound)	6 round trips (Westbound and Eastbound)	7 round trips (Westbound and Eastbound)
Station Location Type	Suburban	Suburban	Suburban	Suburban	Rural	Suburban
Flag Stop	Regular stop	Flag Stop	Regular stop	Regular stop	Flag stop	Regular stop
Shelter	Station building with waiting room, vending, and restrooms. Bicycle accessible station (NICTD administrative office here)	Historic tile roof structure and stucco (Spanish style) structure with waiting room and restrooms	Small metal and glass shelter at end of adjacent parking lot, near 11th Street/Pines Street intersection	Small metal and glass shelter by platform and a second seating area with restrooms adjacent to platform where agent is located	Small metal and glass shelter	Overhead metal structure. Seating within the airport located by the ticket agent. Bicycle accessible station
Agent Hours	No agent	No agent	No agent	Agent Hours: 8:05 A.M. – 4:45 P.M. Mon-Fri -- Closed 11:00 A.M. – 11:30 A.M. Daily	No agent	5:35 A.M. – 1:00 P.M. Fri.; 6:05 A.M. – 1:30 P.M. Sat, Sun
Ticketing/Ticket Vending Machine (TVM)	TVM available	TVM available	TVM available	TVM available	No TVM	TVM available



Location	Dune Park (Chesterton)	Beverly Shores (Porter Co.)	11th Street (Michigan City)	Carroll Avenue (Michigan City)	Hudson Lake (LaPorte Co.)	South Bend Airport
ADA	ADA Compliant. High level boarding platform.	Not wheelchair accessible	Not wheelchair accessible.	ADA Compliant. Accessible. Low level platform with mobile wheelchair lift.	Not wheelchair accessible.	ADA Compliant. High level platform.
Parking	Parking spaces: 519 free	Parking spaces: 39 free	Parking spaces: 37 free (Lot fills quickly)	Parking spaces 201 free (Lot fills quickly)	Parking spaces: 20 free	South Bend Airport provides several different parking lots and rates.
Intermodal	Valparaiso Public Transportation V-Line buses		Michigan City Transit buses	Michigan City Transit buses		South Bend TRANSCO buses
Time Zone	Central	Central	Central	Central	Central	Eastern

Source: Update from 2017 Indiana State Rail Plan, NICTD



B. Appendix B: Commodity Movements – Existing and Future Conditions (2018, 2030, 2045)

Freight rail volumes from 2018, estimated from the Surface Transportation Board (STB) Waybill Sample Data for Indiana, are tabulated by major commodity types to understand freight movements.

- **Commodity Classification** – The Standard Transportation Commodity Code (STCC) is a seven-digit numeric code, categorized by 40 commodity groupings, based on physical product information used on shipping documents and published/maintained by the Association of American Railroads (AAR). A hierarchical STCC structure enables sub-totals to be produced for specific commodities. Although freight movements are tallied at the seven-digit STCC detail, the information summarized herein is at the aggregated two-digit level.
- **STB Waybill Sample Data** – This freight rail database is used to analyze Indiana rail goods movements by tonnage, carload, and direction at the state and county levels.

Freight volumes for 2030 and 2045 are derived from the Freight Analysis Framework (FAF4) database. FAF4 data provides a suitable means by which to assess future growth in tonnage, despite being less comprehensive than the STB Waybill Sample data.

This appendix provides detailed supplementary documentation for Chapter 3 and Chapter 4. The data solely reflects freight movements (outbound, inbound, intrastate, and through) and is not reflective of consumption and/or production patterns in the state.

The appendix includes the following tables for **Chapter 3: Economic and Environmental Context of Rail**:

- Rail Outbound Movements by Commodity, 2018
- Rail Outbound Tons by Originating Indiana Counties, 2018
- Rail Outbound Tons by Terminating States, 2018
- Rail Inbound Movements by Commodity, 2018
- Rail Inbound Tonnage by Terminating Indiana Counties, 2018
- Rail Inbound Tonnage by Originating States, 2018
- Rail Intrastate Movements by Commodity, 2018
- Rail Through Movements by Commodity, 2018

The appendix includes the following tables for **Chapter 4: Trends and Forecasts**:

- Forecast Summary, 2018 – 2030 – 2045
- Forecast of Originating and Terminating Commodity Movements in Indiana, 2018 – 2030
- Forecast of Rail Outbound Movements, 2018 – 2030 – 2045
- Forecast of Rail Inbound Movements, 2018 – 2030 – 2045
- Forecast of Rail Intrastate Movements, 2018 – 2030 – 2045

Source: HDR Analysis of 2018 STB Waybill Sample Data and FAF4 database.



Table B-1 – Rail Outbound Movements by Commodity (Tonnage and Carloads), 2018

Commodity	Tons		Carloads	
	Amount	Percent	Amount	Percent
Coal	15,209,661	29.7%	130,376	22.3%
Primary Metal Products	8,539,167	16.7%	96,089	16.4%
Food or Kindred Products	8,259,913	16.2%	82,641	14.1%
Farm Products	8,209,374	16.1%	77,921	13.3%
Hazardous Materials	3,499,871	6.8%	40,264	6.9%
Petroleum or Coal Products	2,397,796	4.7%	22,797	3.9%
Transportation Equipment	1,782,768	3.5%	82,676	14.1%
Chemicals or Allied Products	1,398,940	2.7%	14,104	2.4%
Clay, Concrete, Glass or Stone	942,720	1.8%	8,800	1.5%
Waste or Scrap Materials	504,512	1.0%	5,844	1.0%
Misc. Mixed Shipments	293,360	0.6%	19,200	3.3%
Pulp, Paper or Allied Products	45,080	0.1%	640	0.1%
Metallic Ores	29,360	0.1%	480	0.1%
Logs, Lumber, Wood Prod.	4,840	0.0%	80	0.0%
Misc. Freight Shipments	4,400	0.0%	240	0.0%
Rubber or Misc. Plastics	4,360	0.0%	40	0.0%
Shipping Containers	3,080	0.0%	3,560	0.6%
Printed Matter	720	0.0%	40	0.0%
Furniture or Fixtures	200	0.0%	40	0.0%
Total	51,130,122	100.0%	585,832	100.0%



Table B-2 – Rail Outbound Tons by Originating Indiana Counties, 2018

Commodity	Top Originating Indiana Counties						Total	Percent
	Lake	Vanderburgh	Gibson	Tippecanoe	Porter	Remaining		
Food or Kindred Products	41,360	41,600	0	2,573,318	0	5,603,635	8,259,913	16.2%
Primary Metal Products	4,049,411	0	51,480	1,392	1,964,992	2,471,892	8,539,167	16.7%
Farm Products	0	0	9,408	114,064	58,287	8,027,615	8,209,374	16.1%
Waste or Scrap Materials	79,204	18,800	26,600	7,640	7,564	364,704	504,512	1.0%
Chemicals or Allied Products	899,112	0	0	0	0	499,828	1,398,940	2.7%
Shipping Containers	0	0	0	0	0	3,080	3,080	0.0%
Hazardous Materials	1,416,717	0	0	0	0	2,083,154	3,499,871	6.8%
Transportation Equipment	16,400	3,360	712,000	370,680	1,040	679,288	1,782,768	3.5%
Petroleum or Coal Products	2,135,356	63,520	0	0	0	198,920	2,397,796	4.7%
Clay, Concrete, Glass or Stone	49,840	0	0	0	0	892,880	942,720	1.8%



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Commodity	Top Originating Indiana Counties						Total	Percent
	Lake	Vanderburgh	Gibson	Tippecanoe	Porter	Remaining		
Rubber or Misc. Plastics	0	0	0	0	0	4,360	4,360	0.0%
Pulp, Paper or Allied Products	0	0	0	0	0	45,080	45,080	0.1%
Coal	0	7,310,825	4,713,018	0	0	3,185,818	15,209,661	29.7%
Misc. Freight Shipments	0	0	0	0	0	4,400	4,400	0.0%
Metallic Ores	0	0	0	0	0	29,360	29,360	0.1%
Furniture or Fixtures	0	0	0	0	0	200	200	0.0%
Misc. Mixed Shipments	0	0	0	0	0	293,360	293,360	0.6%
Logs, Lumber, Wood Prod.	0	0	0	0	0	4,840	4,840	0.0%
Printed Matter	0	0	0	0	0	720	720	0.0%
Total	8,687,400	7,438,105	5,512,506	3,067,094	2,031,883	24,393,134	51,130,122	100%
Percent	17.0%	14.5%	10.8%	6.0%	4.0%	47.7%	100%	





Table B-3 – Rail Outbound Tons by Terminating States, 2018

Commodity	Terminating States						Total	Percent
	Georgia	Alabama	Virginia	Ohio	Illinois	Remaining		
Food or Kindred Products	1,076,224	625,872	400,941	678,648	1,632,154	3,846,074	8,259,913	16.2%
Primary Metal Products	20,520	1,094,080	18,080	2,247,948	767,384	4,391,155	8,539,167	16.7%
Farm Products	2,451,481	1,203,262	411,859	0	220,088	3,922,684	8,209,374	16.1%
Waste or Scrap Materials	36,640	28,612	21,160	151,068	46,320	220,712	504,512	1.0%
Chemicals or Allied Products	144,060	27,888	82,552	347,928	114,536	681,976	1,398,940	2.7%
Shipping Containers	0	0	0	0	3,080	0	3,080	0.0%
Hazardous Materials	187,720	249,100	132,216	174,940	535,196	2,220,699	3,499,871	6.8%
Transportation Equipment	83,920	0	920	182,440	546,528	968,960	1,782,768	3.5%
Petroleum or Coal Products	28,000	0	694,230	0	15,600	1,659,966	2,397,796	4.7%



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Commodity	Terminating States						Total	Percent
	Georgia	Alabama	Virginia	Ohio	Illinois	Remaining		
Clay, Concrete, Glass or Stone	3,840	8,520	4,000	345,560	95,240	485,560	942,720	1.8%
Rubber or Misc. Plastics	0	0	0	0	0	4,360	4,360	0.0%
Pulp, Paper or Allied Products	4,960	0	0	3,120	9,960	27,040	45,080	0.1%
Coal	3,233,886	1,906,054	2,680,979	54,090	30,000	7,304,652	15,209,661	29.7%
Misc. Freight Shipments	0	0	0	0	0	4,400	4,400	0.0%
Metallic Ores	0	0	0	0	7,480	21,880	29,360	0.1%
Furniture or Fixtures	0	0	0	0	0	200	200	0.0%
Misc. Mixed Shipments	0	0	0	0	0	293,360	293,360	0.6%
Logs, Lumber, Wood Prod.	0	0	0	0	4,000	840	4,840	0.0%
Printed Matter	0	0	0	0	0	720	720	0.0%



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Commodity	Terminating States						Total	Percent
	Georgia	Alabama	Virginia	Ohio	Illinois	Remaining		
Total	7,271,251	5,143,388	4,446,937	4,185,742	4,027,566	26,055,238	51,130,122	100%
Percent	14.2%	10.1%	8.7%	8.2%	7.9%	51.0%	100%	



Table B-4 – Rail Inbound Movements by Commodity (Tonnage and Carloads), 2018

Commodity	Tons		Carloads	
	Amount	Percent	Amount	Percent
Coal	24,470,672	52.0%	213,181	41.9%
Primary Metal Products	4,191,838	8.9%	43,214	8.5%
Chemicals or Allied Products	4,042,600	8.6%	41,838	8.2%
Waste or Scrap Materials	4,017,308	8.5%	44,496	8.7%
Farm Products	2,004,373	4.3%	19,088	3.8%
Hazardous Materials	1,673,335	3.6%	21,412	4.2%
Petroleum or Coal Products	1,376,807	2.9%	20,812	4.1%
Food or Kindred Products	1,292,528	2.7%	13,596	2.7%
Clay, Concrete, Glass or Stone	872,544	1.9%	8,720	1.7%
Nonmetallic Minerals	843,300	1.8%	8,076	1.6%
Pulp, Paper or Allied Products	668,800	1.4%	9,000	1.8%
Logs, Lumber, Wood Prod.	618,720	1.3%	6,680	1.3%
Misc. Mixed Shipments	448,880	1.0%	38,800	7.6%
Transportation Equipment	393,830	0.8%	15,519	3.1%
Metallic Ores	37,912	0.1%	388	0.1%
Electrical Equipment	30,100	0.1%	636	0.1%
Machinery	24,223	0.1%	736	0.1%
Misc. Manufacturing Products	17,360	0.0%	1,320	0.3%
Misc. Freight Shipments	13,548	0.0%	543	0.1%
Rubber or Misc. Plastics	3,280	0.0%	280	0.1%
Forest Products	3,200	0.0%	40	0.0%



Apparel or Related Products	2,240	0.0%	120	0.0%
Shipping Containers	320	0.0%	240	0.0%
Total	47,047,718	100.0%	508,735	100.0%



Table B-5 – Rail Inbound Tonnage by Terminating Indiana Counties, 2018

Commodity	Terminating Indiana Counties						Total	Percent
	Posey	Vanderburgh	Lake	Porter	Jasper	Remaining		
Logs, Lumber, Wood Prod.	0	0	26,280	0	7,320	585,120	618,720	1.3%
Chemicals or Allied Products	118,144	206,580	272,400	44,680	90,172	3,310,624	4,042,600	8.6%
Petroleum or Coal Products	15,788	0	1,075,059	0	0	285,960	1,376,807	2.9%
Primary Metal Products	0	0	143,184	671,020	0	3,377,634	4,191,838	8.9%
Hazardous Materials	64,800	7,880	757,992	18,240	0	824,423	1,673,335	3.6%
Waste or Scrap Materials	0	0	216,520	45,348	0	3,755,440	4,017,308	8.5%
Clay, Concrete, Glass or Stone	67,880	0	3,520	38,960	49,160	713,024	872,544	1.9%
Food or Kindred Products	3,920	0	187,640	0	35,528	1,065,440	1,292,528	2.7%
Electrical Equipment	0	0	11,240	0	0	18,860	30,100	0.1%
Pulp, Paper or Allied Products	0	0	69,200	0	2,920	596,680	668,800	1.4%
Rubber or Misc. Plastics	0	0	0	0	0	3,280	3,280	0.0%
Misc. Manufacturing Products	0	0	0	0	0	17,360	17,360	0.0%
Misc. Mixed Shipments	0	0	0	0	0	448,880	448,880	1.0%
Coal	8,601,933	6,746,058	1,962,685	3,107,502	3,008,268	1,044,226	24,470,672	52.0%
Transportation Equipment	0	27,080	29,840	0	1,200	335,710	393,830	0.8%
Shipping Containers	0	0	0	0	0	320	320	0.0%
Machinery	0	0	1,119	0	23,104	0	24,223	0.1%
Metallic Ores	0	0	0	0	0	37,912	37,912	0.1%
Farm Products	701,960	0	0	0	10,840	1,291,573	2,004,373	4.3%
Nonmetallic Minerals	0	0	0	0	0	843,300	843,300	1.8%
Misc. Freight Shipments	0	0	0	0	0	13,548	13,548	0.0%



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Apparel or Related Products	0	0	0	0	0	2,240	2,240	0.0%
Forest Products	0	0	0	0	0	3,200	3,200	0.0%
Total	9,574,425	6,987,598	4,756,679	3,925,750	3,228,512	18,574,754	47,047,718	100%
Percent	20.4%	14.9%	10.1%	8.3%	6.9%	39.5%	100%	



Table B-6 – Rail Inbound Tonnage by Originating States, 2018

Commodity	Originating States						Total	Percent
	Illinois	Ohio	West Virginia	Michigan	Non-US	Remaining		
Logs, Lumber, Wood Prod.	121,200	29,520	0	6,880	290,160	170,960	618,720	1.3%
Chemicals or Allied Products	2,187,156	51,000	35,240	3,920	72,880	1,692,404	4,042,600	8.6%
Petroleum or Coal Products	45,360	345,828	0	308,913	61,040	615,666	1,376,807	2.9%
Primary Metal Products	711,434	2,290,824	0	323,744	141,920	723,916	4,191,838	8.9%
Hazardous Materials	402,359	493,984	97,532	17,040	99,000	563,420	1,673,335	3.6%
Waste or Scrap Materials	593,944	1,190,660	0	1,196,276	129,544	906,884	4,017,308	8.5%
Clay, Concrete, Glass or Stone	114,680	23,400	0	93,944	29,840	610,680	872,544	1.9%
Food or Kindred Products	905,588	3,120	0	11,360	92,340	280,120	1,292,528	2.7%
Electrical Equipment	18,860	0	0	0	7,280	3,960	30,100	0.1%
Pulp, Paper or Allied Products	69,960	15,720	0	2,200	27,240	553,680	668,800	1.4%



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Commodity	Originating States						Total	Percent
	Illinois	Ohio	West Virginia	Michigan	Non-US	Remaining		
Rubber or Misc. Plastics	0	0	0	0	2,400	880	3,280	0.0%
Misc. Manufacturing Products	0	0	0	0	3,440	13,920	17,360	0.0%
Misc. Mixed Shipments	0	0	0	0	187,520	261,360	448,880	1.0%
Coal	19,221,585	0	3,656,845	0	394,706	1,197,536	24,470,672	52.0%
Transportation Equipment	133,352	7,440	0	119,040	0	133,998	393,830	0.8%
Shipping Containers	0	0	0	0	0	320	320	0.0%
Machinery	23,104	0	0	0	0	1,119	24,223	0.1%
Metallic Ores	0	0	0	0	0	37,912	37,912	0.1%
Farm Products	1,949,969	47,216	0	0	0	7,188	2,004,373	4.3%
Nonmetallic Minerals	284,080	86,784	0	218,172	0	254,264	843,300	1.8%
Misc. Freight Shipments	0	0	0	0	0	13,548	13,548	0.0%



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Commodity	Originating States						Total	Percent
	Illinois	Ohio	West Virginia	Michigan	Non-US	Remaining		
Apparel or Related Products	0	0	0	0	0	2,240	2,240	0.0%
Forest Products	0	0	0	0	0	3,200	3,200	0.0%
Total	26,782,631	4,585,496	3,789,617	2,301,489	1,539,310	8,049,175	47,047,718	100%
Percent	56.9%	9.7%	8.1%	4.9%	3.3%	17.1%	100%	



Table B-7 – Rail Intrastate Movements by Commodity (Tonnage and Carloads), 2018

Commodity	Tons		Carloads	
	Amount	Percent	Amount	Percent
Coal	20,495,579	78.1%	179,208	73.8%
Primary Metal Products	3,269,683	12.5%	33,562	13.8%
Waste or Scrap Materials	823,312	3.1%	9,324	3.8%
Nonmetallic Minerals	348,360	1.3%	3,196	1.3%
Farm Products	334,692	1.3%	3,233	1.3%
Hazardous Materials	260,696	1.0%	2,884	1.2%
Food or Kindred Products	211,284	0.8%	2,176	0.9%
Chemicals or Allied Products	204,956	0.8%	2,100	0.9%
Petroleum or Coal Products	122,760	0.5%	1,880	0.8%
Clay, Concrete, Glass or Stone	115,040	0.4%	1,040	0.4%
Transportation Equipment	66,760	0.3%	4,216	1.7%
Pulp, Paper or Allied Products	2,680	0.0%	40	0.0%
Total	26,255,802	100.0%	242,859	100.0%



Table B-8 – Rail Through Movements by Commodity (Tonnage and Carloads), 2018

Commodity	Tons		Carloads	
	Amount	Percent	Amount	Percent
Hazardous Materials	46,372,544	21.0%	689,816	10.5%
Misc. Mixed Shipments	29,784,484	13.5%	2,465,668	37.5%
Food or Kindred Products	24,553,913	11.1%	487,157	7.4%
Chemicals or Allied Products	20,952,961	9.5%	280,656	4.3%
Coal	18,810,615	8.5%	156,433	2.4%
Farm Products	14,702,663	6.7%	175,649	2.7%
Transportation Equipment	14,150,340	6.4%	735,144	11.2%
Nonmetallic Minerals	10,700,521	4.8%	102,891	1.6%
Pulp, Paper or Allied Products	8,380,588	3.8%	257,780	3.9%
Primary Metal Products	7,609,902	3.4%	92,088	1.4%
Logs, Lumber, Wood Prod.	6,580,616	3.0%	88,428	1.3%
Clay, Concrete, Glass or Stone	5,685,412	2.6%	76,084	1.2%
Petroleum or Coal Products	2,845,715	1.3%	36,768	0.6%
Waste or Scrap Materials	2,064,692	0.9%	30,236	0.5%
Apparel or Related Products	1,784,600	0.8%	163,000	2.5%
Shipping Containers	1,032,800	0.5%	348,520	5.3%
Rubber or Misc. Plastics	1,008,680	0.5%	87,760	1.3%
Electrical Equipment	775,372	0.4%	75,312	1.1%
Furniture or Fixtures	717,680	0.3%	55,760	0.8%
Misc. Freight Shipments	507,752	0.2%	51,090	0.8%
Machinery	436,835	0.2%	31,820	0.5%



Indiana State Rail Plan 2021 | Appendix B: Commodity Movements - Existing and Future Conditions
(2018, 2030, and 2045)

Commodity	Tons		Carloads	
	Amount	Percent	Amount	Percent
Fabricated Metal Products	264,760	0.1%	23,160	0.4%
Misc. Manufacturing Products	244,280	0.1%	23,160	0.4%
Metallic Ores	220,228	0.1%	2,296	0.0%
Printed Matter	214,000	0.1%	14,480	0.2%
Small Pig Freight Shipments	148,440	0.1%	16,280	0.2%
Textile Mill Products	79,400	0.0%	6,120	0.1%
Instrum Photo Equip, Optical Eq	47,880	0.0%	3,160	0.0%
Shipper Association or Similar Traffic	38,080	0.0%	1,600	0.0%
Fresh Fish or Marine Products	10,880	0.0%	560	0.0%
Ordnance or Accessories	6,240	0.0%	160	0.0%
Leather or Leather Products	4,760	0.0%	600	0.0%
Petroleum Prod, Natural Gas	1,600	0.0%	120	0.0%
Forest Products	1,240	0.0%	80	0.0%
Tobacco Products	1,200	0.0%	120	0.0%
Total	220,741,673	100.0%	6,579,956	100.0%



Table B-9 – Forecast Summary, 2018 – 2030 – 2045

Direction	2018		2030		2045		CAGR		
	Amount	Percent	Amount	Percent	Amount	Percent	2018 - 2030	2030 - 2045	2018 - 2045
Outbound	51,130,122	14.8%	57,667,000	15.1%	65,647,000	14.7%	1.0%	0.9%	0.9%
Inbound	47,047,718	13.6%	47,638,000	12.5%	54,805,000	12.3%	0.1%	0.9%	0.6%
Intrastate	26,255,802	7.6%	21,984,000	5.8%	20,650,000	4.6%	-1.5%	-0.4%	-0.9%
Through	220,741,673	64.0%	254,713,000	66.7%	304,620,000	68.3%	1.2%	1.2%	1.2%
Total	345,175,315	100.0%	382,002,000	100.0%	445,722,000	100.0%	0.8%	1.0%	1.0%

Note: CAGR stands for compound annual growth rate.

Tonnage data for 2030 and 2045 are rounded to the nearest thousand.



Table B-10 – Forecast of Originating and Terminating Commodity Movements in Indiana, 2018 – 2030

Commodity Groups	2018	2030		
	Tons	Tons	% Change	CAGR
Coal	60,175,912	46,129,000	-23.3%	-2.2%
Primary Metal Products	16,000,688	19,061,000	19.1%	1.5%
Food or Kindred Products	9,763,725	11,969,000	22.6%	1.7%
Farm Products	10,548,439	13,884,000	31.6%	2.3%
Hazardous Materials	5,433,902	6,270,000	15.4%	1.2%
Petroleum or Coal Products	3,897,363	5,981,000	53.5%	3.6%
Transportation Equipment	2,243,358	2,881,000	28.4%	2.1%
Chemicals or Allied Products	5,646,496	7,563,000	33.9%	2.5%
Clay, Concrete, Glass or Stone	1,930,304	2,562,000	32.7%	2.4%
Waste or Scrap Materials	5,345,132	6,902,000	29.1%	2.2%
Other	3,448,323	4,087,000	18.5%	1.4%
Total	124,433,642	127,289,000	2.3%	0.2%

Note: CAGR stands for compound annual growth rate. Tonnage data for 2030 is rounded to the nearest thousand.



Table B-11 – Forecast of Rail Outbound Movements, 2018 – 2030 – 2045

Commodity Group	2018		2030		2045		
	Tons	Tons	2018 - 2030 % Change	2018 - 2030 CAGR	Tons	2030 - 2045 % Change	2030 - 2045 CAGR
Coal	15,209,661	12,344,000	-18.8%	-1.7%	10,490,000	-15.0%	-1.1%
Primary Metal Products	8,539,167	10,466,000	22.6%	1.7%	13,097,000	25.1%	1.5%
Food or Kindred Products	8,259,913	9,895,000	19.8%	1.5%	11,875,000	20.0%	1.2%
Farm Products	8,209,374	10,699,000	30.3%	2.2%	14,213,000	32.8%	1.9%
Hazardous Materials	3,499,871	4,038,000	15.4%	1.2%	4,830,000	19.6%	1.2%
Petroleum or Coal Products	2,397,796	3,255,000	35.7%	2.6%	2,741,000	-15.8%	-1.1%
Transportation Equipment	1,782,768	2,310,000	29.6%	2.2%	2,992,000	29.5%	1.7%
Chemicals or Allied Products	1,398,940	1,794,000	28.2%	2.1%	1,755,000	-2.2%	-0.1%
Clay, Concrete, Glass or Stone	942,720	1,598,000	69.5%	4.5%	1,919,000	20.1%	1.2%
Waste or Scrap Materials	504,512	754,000	49.5%	3.4%	1,021,000	35.4%	2.0%
Other	385,400	514,000	33.4%	2.4%	714,000	38.9%	2.2%
Total	51,130,122	57,667,000	12.8%	1.0%	65,647,000	13.8%	0.9%

Note: CAGR stands for compound annual growth rate.

Tonnage data for 2030 and 2045 are rounded to the nearest thousand.



Table B-12 – Forecast of Rail Inbound Movements, 2018 – 2030 – 2045

Commodity Group	2018		2030		2045		
	Tons	Tons	2018 - 2030 % Change	2018 - 2030 CAGR	Tons	2030 - 2045 % Change	2030 - 2045 CAGR
Coal	24,470,672	18,729,000	-23.5%	-2.2%	15,949,000	-14.8%	-1.1%
Primary Metal Products	4,191,838	4,578,000	9.2%	0.7%	5,128,000	12.0%	0.8%
Chemicals or Allied Products	4,042,600	5,483,000	35.6%	2.6%	7,040,000	28.4%	1.7%
Waste or Scrap Materials	4,017,308	5,124,000	27.5%	2.0%	6,523,000	27.3%	1.6%
Farm Products	2,004,373	2,781,000	38.7%	2.8%	4,077,000	46.6%	2.6%
Hazardous Materials	1,673,335	1,931,000	15.4%	1.2%	2,309,000	19.6%	1.2%
Petroleum or Coal Products	1,376,807	2,590,000	88.1%	5.4%	4,367,000	68.6%	3.5%
Food or Kindred Products	1,292,528	1,813,000	40.3%	2.9%	2,652,000	46.3%	2.6%
Clay, Concrete, Glass or Stone	872,544	964,000	10.5%	0.8%	2,157,000	123.8%	5.5%
Transportation Equipment	393,830	496,000	25.9%	1.9%	711,000	43.3%	2.4%
Other	2,711,883	3,150,000	16.2%	1.3%	3,892,000	23.6%	1.4%
Total	47,047,718	47,639,000	1.3%	0.1%	54,805,000	15.0%	0.9%

Note: CAGR stands for compound annual growth rate.

Tonnage data for 2030 and 2045 are rounded to the nearest thousand.



Table B-13 – Forecast of Rail Intrastate Movements, 2018 – 2030 – 2045

Commodity Group	2018	2030			2045		
	Tons	Tons	2018 - 2030 % Change	2018 - 2030 CAGR	Tons	2030 - 2045 % Change	2030 - 2045 CAGR
Coal	20,495,579	15,056,000	-26.5%	-2.5%	12,395,000	-17.7%	-1.3%
Primary Metal Products	3,269,683	4,017,000	22.9%	1.7%	4,952,000	23.3%	1.4%
Waste or Scrap Materials	823,312	1,024,000	24.4%	1.8%	1,126,000	10.0%	0.6%
Farm Products	334,692	404,000	20.7%	1.6%	507,000	25.5%	1.5%
Hazardous Materials	260,696	301,000	15.5%	1.2%	360,000	19.6%	1.2%
Food or Kindred Products	211,284	261,000	23.5%	1.8%	331,000	26.8%	1.6%
Chemicals or Allied Products	204,956	286,000	39.5%	2.8%	287,000	0.3%	0.0%
Petroleum or Coal Products	122,760	136,000	10.8%	0.9%	119,000	-12.5%	-0.9%
Clay, Concrete, Glass or Stone	115,040	n/a	n/a	n/a	n/a	n/a	n/a
Transportation Equipment	66,760	75,000	12.3%	1.0%	81,000	8.0%	0.5%
Other	351,040	423,000	20.5%	1.6%	493,000	16.5%	1.0%
Total	26,255,802	21,983,000	-16.3%	-1.5%	20,651,000	-6.1%	-0.4%

Note: CAGR stands for compound annual growth rate.

Tonnage data for 2030 and 2045 are rounded to the nearest thousand.



C. Appendix C: Outreach

Indiana State Rail Plan: Passenger Rail User Interviews - December 2020

Background

Five interviews of passenger rail user groups in Indiana were conducted by phone during October 2020. The interview subjects consisted of two regional transportation planning organizations and metropolitan planning organizations representing some of the largest population centers in Indiana and three passenger rail advocacy groups, two based in Indiana and one in Illinois. The advocacy groups stated that they had membership rosters or contact lists ranging from 300 people to 1,800 people. Both metropolitan planning organizations interviewed had Amtrak intercity passenger rail stations in their region. One metropolitan planning organization also had NICTD commuter rail stations in their region.

The groups targeted for interviews were those approved or recommended by Indiana Department of Transportation (INDOT). INDOT also reviewed and approved the interview questions prior to contacting participants. The consultant preparing the rail plan arranged and conducted the interviews. Each participant received an initial contact email that provided background information on the Indiana State Rail Plan, the role of passenger rail user interviews in the state rail plan development process, how the interview process would be conducted, and an invitation to participate and a request to establish an interview time. Each interview was confidential and lasted approximately one hour. Each participant was asked the same questions. The number of group participants in each interview ranged from one to two.

After the interviews, each participant received an email thanking them for their time. Attached to the email were the notes prepared during the interview, to provide the interviewee for the opportunity to clarify or correct information they had provided. The revised notes that were returned to the consultant team were used as the basis for this summary report.

Eight groups were contacted with requests for interviews. Six groups agreed to be interviewed. One group declined to have their interview responses shared, therefore this report summarizes the responses from five interview participants. Four participating agencies who agreed to be identified are:

- High Speed Rail Alliance
- Northeastern Indiana Regional Coordinating Council
- Northern Indiana Passenger Rail Association
- Northwest Indiana Regional Planning Commission
- Responses to each question are summarized below.



Executive Summary

This section provides a summary of the responses from participants addressing key topics discussed during the interviews. Detailed responses to specific questions will follow the executive summary.

Reasons for traveling by train. Time, money, and stress are the three primary motivators respondents identified for taking public transportation instead of driving. Travelers most often choose to ride a train (1) to avoid driving and road traffic, particularly on I-65 and in the Chicago region, and (2) to lower travel costs by avoiding tolls, gasoline expenses, parking fees, and vehicle wear and tear. Respondents were unanimous in naming the conditions they said were required to convert more trips to rail. Those are:

- convenient departure times and enough frequencies to encourage travel by rail instead of driving
- auto-competitive or faster trip times
- economical ticket pricing, especially for families
- a comfortable environment with amenities such as Wi-Fi and food service that allows travelers to do things they cannot do if they are driving, such as work, read, have a snack, etc., and enable the public to see that the train provides productive time

Assessment of current services. All respondents agreed that the current Amtrak intercity passenger rail service in Indiana is minimal, consisting primarily of three long distance trains between Chicago and the East Coast, with schedules that are not conducive for travel in Indiana. Slow travel times to Chicago, freight rail congestion near Chicago, and poor on-time performance of the long-distance trains also discourage riders from using the train. Respondents also noted that services with these types of issues don't encourage states to want to invest in passenger rail or encourage political support for the passenger rail service, noted one respondent.

Motivators and attributes that could attract passenger rail riders. Some of the key types of trips that respondents believed passenger rail would be favorable for are:

- Travel on the I-65 corridor between Indianapolis and Chicago
- Travel to and from Chicago's O'Hare International Airport
- Travel on the U.S. 30 corridor between Chicago, Fort Wayne, and Lina

The most important aspects of passenger rail service, from most often cited to least, are:

- Frequency – having multiple departures per day
- Reliability – on-time transportation is a key selling point
- Competitive/faster trip times – service as fast as or somewhat faster than an automobile trip



- Modern equipment and on-board amenities – an atmosphere that enables time on the train to be productive and enjoyable
- Convenience – schedules geared to times when people want to travel
- Affordability – reasonable fares priced less than the cost of gas, tolls, parking, and vehicle wear and tear
- Station connectivity – good transit connections and first-mile/last-mile services at stations

Impacts of COVID-19. Although the COVID-19 pandemic may have temporarily reduced the demand for travel and use of passenger and commuter trains, in the long-term, the desire for to travel will return once it is safe to do so. The objective for planners should be on establishing new passenger rail services that are convenient and attractive to draw intercity travelers out of their cars and on board trains.

Potential rail investment strategies. When considering future investments in passenger rail, respondents stated that Indiana should focus on establishing intercity passenger rail service in corridors where travel demand overall is high, and ensure that the rail service is reliable, uses modern equipment, connects downtown areas and multimodal transportation facilities, and operates at times when travelers will want to ride the train.

Respondents offered the following general comments and suggestions regarding the development of intercity passenger rail corridors in Indiana:

- Establish Indianapolis as a hub of high-frequency rail corridors radiating in multiple directions
- Connect major metropolitan areas in Indiana with areas in neighboring states
- Connect major Indiana cities, providing downtown-to-downtown service

Specific corridors that would most benefit from new passenger rail services include:

- Indianapolis-Chicago
- Chicago – Fort Wayne – Lima – Columbus - Pittsburgh
- Indianapolis – Cincinnati
- Indianapolis – Louisville
- Indianapolis – Bloomington
- Indianapolis – Terre Haute – St. Louis
- Valparaiso – Chicago (commuter service)

One respondent stated that a strong focus is needed on creating a dedicated, two-track, electrified passenger main line around the south of Lake Michigan for corridor services from Chicago serving Indiana and Michigan.



Potential actions for INDOT and state legislators. Many respondents expressed a desire to see more enthusiasm and support for passenger rail by INDOT and elected officials. Gaining political support for passenger rail in Indiana is seen as a critical component of any successful service implementation. Promotional efforts centered on passenger rail transportation in Indiana should be focused on gaining public support for planned future service expansions and promoting an awareness of what is possible with modern passenger rail transportation.

One respondent suggested INDOT might begin by developing a passenger rail policy and plan, and also an investment strategy, to help convince legislators, local officials, and the general public that Indiana desires and stands behind passenger rail. Two respondents expressed their desire for Indiana to pass a law establishing a State Passenger Rail Commission. Two respondents also requested assistance from INDOT in providing support for the ongoing regional planning work to establish passenger rail service between Chicago, Fort Wayne, and Lima.

Several respondents were encouraged by the state's significant investment in the NICTD expansion projects for the South Shore Line commuter system. They hoped that the momentum from the successful implementation of those projects would encourage more investment in passenger rail transportation.

General attitude toward passenger rail expansion. Two of the five respondents were optimistic about the possibilities for passenger service in Indiana but recognized that significant challenges surrounding funding and political support would have to be addressed. One respondent was pessimistic, given the low levels of state and national support for intercity passenger rail service. Two respondents were optimistic about the future of passenger rail in Indiana. The recent attention paid by the state to expanding commuter rail service was seen as a positive step and a sign that the Indiana legislature has been sold on the value of rail service. The success of the NICTD projects might encourage more interest in expanding passenger rail service elsewhere in the state.

Summary Responses to Specific Interview Questions

1. What makes people in Indiana decide to take a passenger train instead of driving or choosing some other mode? What conditions would be necessary to convert more trips to passenger rail trips?

- Time, money, and stress are the three primary motivators respondents identified for taking public transportation instead of driving.
- Respondents indicated that travelers in Indiana choose passenger rail transportation for two major reasons: (1) to avoid driving and road traffic, particularly on I-65 and in the Chicago region, and (2) to lower travel costs by avoiding tolls, gasoline expenses, parking fees, and vehicle wear and tear.



- On the I-65 corridor between Indianapolis and Chicago and the I-90 corridor between South Bend and Chicago, roadways are congested, making driving unpleasant and unpredictable. Where available, rail is an attractive transportation option, when compared to the high cost of driving and parking as well as the stress of driving on congested roadways with unpredictable travel times.
- Respondents were unanimous in naming the conditions they said were required to convert more trips to rail. Those are:
 - convenient departure times and enough frequencies to encourage travel by rail instead of driving
 - auto-competitive or faster trip times
 - economical ticket pricing, especially for families
 - a comfortable environment with amenities such as Wi-Fi and food service that allows travelers to do things they cannot do if they are driving, such as work, read, have a snack, etc., and enable the public to see that the train provides productive time
- One respondent also stated that fuel prices play a role in moving people away from using personal vehicles and toward using trains. When fuel prices rise to \$4 to \$5 a gallon, more people would be inclined to take the train because the overall costs of making a trip by car are much higher than times when fuel is around \$2 a gallon. Low fuel prices are not conducive to shifting travel patterns to the train or overcome existing preferences to drive.

2. What are the most important reasons for Indiana to have passenger rail service?

- Survey respondents unanimously saw the need for having a safe and convenient intercity transportation alternative to driving. Other respondents saw the value of having a safe travel alternative to driving during poor or hazardous weather conditions.
- Some respondents cited specific markets and traveler profiles that would be favorably inclined to choose or taking advantage of passenger rail transportation, such as:
 - the state's aging population
 - the state's Amish population
 - state residents and visitors who are unable to drive or unwilling to drive
 - students and younger travelers who want to spend time online instead of driving a car
 - commuters or business travelers spending the workday in Chicago.
- Some of the key types of trips that respondents believed passenger rail would be favorable for are:
 - Travel on the I-65 corridor between Indianapolis and Chicago



- Travel to and from Chicago's O'Hare International Airport
- Travel on the U.S. 30 corridor between Chicago, Fort Wayne, and Lina
- One respondent also noted the value of having a robust commuter rail system that allows people who work in Chicago to live in Northwest Indiana. Attracting Chicago workforce talent to Indiana was believed to encourage local expansion of local workforce talent and regional economic development based on quality of place and preservation of natural assets.

3. What are the most important aspects of passenger rail service to you?

The following aspects of service were most frequently cited by respondents.

- Frequency – 4 respondents
 - Having multiple departures per day is the most important
 - You need at least 2 trains per day each way at a minimum for the rail service to draw travelers
 - There have to be enough trains to make the service convenient and compelling enough to use instead of driving
 - In Indiana, you would need hourly departures from Chicago to Indianapolis and to South Bend to really see robust ridership
- Reliability – 3 respondents
 - On-time transportation is a key selling point
 - People will accept other shortcomings in departures times or trip times or speed if the service is reliable
- Competitive/faster trip times – 3 respondents
 - Time is a major factor in travel decisions
 - You would like the service to be as fast or somewhat faster than a private auto
 - Limiting station stops to maintain a faster trip time is a good idea
- Modern equipment and On-board amenities – 2 respondents
 - The ability to bring bikes on board, checked baggage service, and food service all help create an attractive service, but are not as critical as good timekeeping
 - Let the environment of the train be an attribute. The ability to work or use the time on board the train the way you want to use it is attractive.
- Convenience – 2 respondents
 - Schedules have to be timed to make sense for travelers, and departures have to be geared to times when people want to travel



- Departures that are scheduled to make the service more convenient than driving are important
- Affordability – 1 respondent
 - Reasonable fares will boost the attractiveness and competitiveness of the service.
- As one respondent summed up the question:
- “It starts with very frequent service. However, all of these elements are needed to create a passenger rail product that people want to use. You can’t prioritize one at the expense of the other. And an investment in one aspect yields benefits in other aspects. If you build more track to run trains more frequently, you will also improve reliability, because you have added more capacity. They are all important.”
- Another respondent mentioned the current NICTD West Lake Corridor extension and Double Track NWI commuter rail expansion projects as important investments that will improve system reliability and provide opportunities to attract more riders traveling between Northern Indiana and Chicago.

4. Is there enough awareness of existing passenger rail services in Indiana? If not, how should these services be promoted?

- Four of five respondents stated that there is not enough awareness of passenger rail service in Indiana. Three of five respondents stated that the existing passenger rail services were not frequent enough, reliable enough, or convenient enough to attract riders or justify promotion. One respondent stated the South Shore Line commuter service is well known in Northwest Indiana, and that NICTD does a good job promoting its service
- Three respondents stated that promotional efforts should be focused on gaining public support for planned future service expansions and promoting an awareness of what is possible with modern passenger rail transportation. Respondents stated they would prefer to see promotional efforts designed to raise awareness of how passenger rail could improve travel between Chicago and Indianapolis or Fort Wayne. Messages could be focused on Indiana’s location as part of a megaregion with Illinois and Ohio, and how passenger rail transportation could be used to strengthen travel within the megaregion and simultaneously help support and improve Indiana as a great place for people to live and do business within that megaregion.
- One respondent stated that promotion should also emphasize the economic benefits of passenger rail and the relative cost and benefits compared with public investments in air and highways.
- One respondent stated that the current state investments in NICTD’s commuter rail expansion projects came about because of regional efforts to promote the benefits of the projects to legislators in the Indiana state government.



5. How has the recent COVID-19 pandemic changed user trends for passenger rail?

- Three respondents stated that ridership on passenger trains and commuter trains in Indiana has declined because of the pandemic. Respondents were uncertain as to how significant the decline in passenger rail ridership might be in Indiana, given how little passenger rail service exists in the state.
- One respondent mentioned that Amtrak adjusted the frequencies of its long distance trains from daily to triweekly in all 2020, which reduced opportunities for travelers to ride trains. Another stated that even if passenger rail frequencies had remained at pre-pandemic levels, people would still choose to travel by automobile for personal safety.

6. Within what timeframe do you anticipate passenger ridership will return to pre-pandemic levels? Or do you foresee that certain travel patterns will move away from rail as a result of the pandemic?

- Respondents do not foresee a significant return of intercity passenger rail travel demand in the short term. However, in the long term, respondents were confident that the desire for people to want to travel will return. However, they noted that intercity passenger rail service in Indiana would still need to expand in order to convert automobile trips to passenger rail trips. Three respondents also stated that rail services should promote their safety and cleaning protocols to educate the public that rail travel is safe.
- Respondents were less certain whether any longer-term or lasting trends would develop that might change how or where intercity trips are made in Indiana, whether by rail or highway. Commuter systems might have to consider adjustments if suburb-to-downtown travel is replaced by more suburb-to-suburb trips. One respondent stated that COVID has had an effect on the state's ability to fund programs and services, which could impact the state's plans for future passenger rail investment.

7. Where should Indiana be focusing future passenger service improvements?

- Respondents' answers to this question could be summarized as follows: Indiana should focus on establishing intercity passenger rail service in corridors where travel demand overall is high, and ensure that the rail service is reliable, uses modern equipment, connects downtown areas and multimodal transportation facilities, and operates at times when travelers will want to ride the train.
- Increasing speed and reducing trip times of passenger rail and commuter rail services were other important investment goals cited by respondents. Time is a major factor in travel decisions.
- One survey respondent provided their vision for a short-range and long-range passenger rail investment program, as follows:



Short-term improvements

- First extend NICTD service from Chicago to Indianapolis
 - Construct a joint NICTD-Amtrak station at Dyer, and run NICTD trains from Chicago to Indianapolis
 - Use lightweight, self-propelled dual-mode equipment that can run on electricity in NICTD territory and run on another power source on freight tracks from Dyer to Indianapolis
 - Offer service 5-7 times per day in each direction
 - Upgrade the CSX freight tracks for 80mph operation, so the Indianapolis-Chicago trip can be made in 3 to 3.5 hours
- Then upgrade the existing NICTD route from Chicago to South Bend
 - Double track the NICTD line from Chicago all the way to South Bend
 - Build a joint NICTD/Amtrak station in South Bend
 - Build rail connections to permit Amtrak trains from Michigan to operate on NICTD's line from South Bend into Chicago, and use a connection in Chicago via CN to reach Union Station

Long term

- Longer term, the state needs to do serious planning for two high-speed passenger trunk lines:
 - Chicago – Indianapolis – Cincinnati, and
 - Chicago – Fort Wayne with branches to Columbus, OH, Toledo, OH, Cleveland, OH and Detroit, MI
- Build dedicated, fast passenger tracks for both corridor routes.
 - Indianapolis should be a regional rail hub, with connections to services on the following corridors:
 - Indianapolis – Muncie – Fort Wayne
 - Indianapolis – Dayton – Columbus, OH
 - Indianapolis – Cincinnati, OH
 - Indianapolis – Columbus, IN – Louisville, KY
 - Indianapolis – Terre Haute – Evansville
 - Indianapolis – Bloomington



- Build the Chicago to Indianapolis corridor as a high-speed core route with frequent service. Then incrementally build other connecting rail corridors using conventional passenger train speeds and technology. Focus on building connecting corridors that would serve more cities, and bring passengers to a travel hub in Indianapolis:
 - Indianapolis-Columbus, OH should have frequent service
 - Indianapolis-Louisville, KY should have frequent service
 - Bloomington should be connected by rail to Indianapolis and Chicago.
- An effective passenger rail service on the Indianapolis-Chicago core could be modeled on what exists in Japan: a three-tiered structure consisting of expresses, regional, and locals.
 - Express trains would be limited-stop, fast trains, serving only Indianapolis, downtown Chicago, and O'Hare International Airport.
 - Rapid trains would make a few more stop, but still provide fast, convenient service. An Indianapolis-Chicago-O'Hare Rapid train might also stop in Lafayette.
 - Local trains would have the most number of stops between Indianapolis and O'Hare, such as Crawfordsville, Lafayette, Rensselaer, and Dyer. In Japan, Local trains run every hour
- This can be done at a much lower environmental cost than building and expanding highways. Not all of the trains have to go to Chicago Union Station. The state should rethink passenger rail and what it could deliver for Indiana.

8. Are there travel corridors or point-to-point trips that you would like to use rail for or see value in having rail for, but currently cannot make?

- All of the survey respondents expressed strong support for developing an intercity passenger rail service on the I-65 corridor between Indianapolis and Chicago.
- The majority of survey respondents also expressed support for establishing intercity passenger rail service in the Chicago – Valparaiso – Fort Wayne – Lima, OH – Columbus, OH – Pittsburgh, PA corridor.
- One respondent stated that Fort Wayne is the second largest city in Indiana and the second largest city in the U.S. Midwest without passenger rail service (Columbus, OH was the largest), and that the demand for passenger rail service from Fort Wayne to Chicago is strong.
- Three respondents stated they would like to see the development of Indianapolis as a passenger rail hub for Indiana, where connections could be made between routes, including:
 - Indianapolis – Chicago
 - Indianapolis – Fort Wayne



- Indianapolis – Dayton – Columbus
- Indianapolis – Cincinnati
- Indianapolis – Louisville
- Indianapolis – Bloomington
- Indianapolis – Terre Haute – St. Louis
- One respondent also stated a desire for establishing a new commuter rail corridor between Valparaiso and Chicago. This corridor currently has a commuter bus service that operates four round trips on weekdays, with a fifth round trip expected to begin soon.

9. How could passenger rail stations in Indiana be improved? Are the facilities and transit connections adequate for travel needs?

- Most respondents observed that the current intercity passenger rail stations in Indiana do not serve the state’s large population centers. Where passenger rail stations do exist, respondents stated that the stations should be well maintained to attract travelers.
- Respondents agreed that having good transit connections and first-mile/last-mile services is important to enable rail travelers to make complete point-to-point trips.
- One respondent stated that state plans for new rail corridors should consider the balance between station stops and travel times, noting that Indiana does not have a high enough population density to make intrastate trips viable that would require a lot of station stops at small communities.
- One respondent suggested adding a station on the Hoosier State corridor to serve the Indianapolis Airport.
- The ability to establish transit-oriented development should be a key factor when planning new commuter rail stations or improvements to existing commuter rail stations, one respondent noted.

10. What is your impression of the services that are currently provided? How effective are they? Are there specific improvements to them that could be implemented?

- All respondents agreed that intercity passenger rail service in Indiana is minimal, consisting primarily of three long distance trains between Chicago and the East Coast, with schedules that are not conducive for travel in Indiana. Service on the corridor between Indianapolis and Chicago only operates three times per week in each direction. As a result, most people drive when traveling between the two cities. The other passenger rail route that crosses Indiana – serving Elkhart, South Bend, and Waterloo – operates daily, but the trains mainly run at night
- Respondents also stated that the slow travel times to Chicago, freight rail congestion near Chicago, and poor on-time performance of the long-distance trains discourage riders from



using the train. Services with these types of issues don't encourage states to want to invest in passenger rail or encourage political support for the passenger rail service, noted one respondent.

11. Did you ride the Hoosier State when it was in operation? What did you like or dislike about that service? If service on the line were reinstated, what would you like to see happen to make it better than before?

- Three of the respondents rode the Hoosier State when it was in operation. Each had similar impressions of the service: the times were inconvenient, the trip was slow, and the on-time performance was low.
- However, two of the respondents stated that despite those detriments, they noticed that the train still drew passengers, which suggested that a reinstated Indianapolis-Chicago rail passenger service with frequent schedules, competitive trip times, and high reliability had the potential to be successful and tap a large market of existing highway travelers.
- One respondent also noted that the train had demonstrated there was a demand for a premium service offering in the corridor. The respondent stated that even in months when total ridership on the train dropped, overall revenue continued to increase because a larger percentage of riders that continued to use the train were choosing the premium service. People were willing to pay more for a more comfortable and enjoyable passenger experience.
- Two of the five respondents did not ride the Hoosier State, citing the train's inconvenient schedule and slow trip time as determining factors for not riding.
- The following suggestions were made for improving:
 - Offer more departures (suggestions ranged from 2 round trips per day to at least 8 round trips per day)
 - Offer a faster trip time between Indianapolis and Chicago that is at least equal to, and preferably faster than, driving. A 90-minute trip was recommended.
 - Develop schedules with reasonable arrival and departure times that allow for day trips, and not arrivals in the middle of the night
 - Ensure that station services and facilities are attractive and inviting to passengers

12. Are there other travel corridors that currently have limited or no passenger rail service that would benefit from the introduction or improvement of passenger rail service?

- Respondents offered the following general comments and suggestions regarding the development of intercity passenger rail corridors in Indiana:



- Establish Indianapolis as a hub of high-frequency rail corridors radiating in multiple directions
 - Connect major metropolitan areas in Indiana with areas in neighboring states
 - Connect major Indiana cities, providing downtown-to-downtown service
- Specific corridors that were identified as the best candidates for passenger rail service were:
 - **Chicago-Indianapolis.** Reinstating passenger rail service on the Indianapolis-Chicago corridor was the most frequent suggestion. Respondents believe that providing passenger rail service in this corridor would generate the highest return on investment. There is a lot of travel activity already in that corridor. Yet bus service is poor, and you can't fly between points in Indiana. One respondent said service to Chicago should consist of at least 3 to 4 round trips per day, in order to begin to generate enough ridership and farebox revenue to make the service viable.
 - **Chicago-Fort Wayne-Lima-Columbus-Pittsburgh.** This corridor was a popular candidate for new passenger rail service among survey respondents. The existence of large communities along the U.S. 30 corridor, from Valparaiso to Fort Wayne, could provide a viable travel market for passenger rail, and could attract a lot of different travelers making trips between the Pittsburgh, Columbus, Fort Wayne, and Chicago metropolitan areas. One respondent believed that there was great interest in travelers from Fort Wayne and Columbus to travel to Chicago by rail.
- **Routes radiating from Indianapolis.** In addition to Indianapolis-Chicago, the top suggestions were:
 - Indianapolis - Cincinnati
 - Indianapolis – Louisville
 - Indianapolis – St. Louis
- As one respondent suggested: "Start with multiple frequencies between Indianapolis and Chicago. Then a logical next step would be extending the trains from Indianapolis to Cincinnati, and from Indianapolis to Louisville. Those rail lines already exist for freight. It all depends on how serious Indiana is about passenger rail."
- Another respondent believed that Indiana passenger trains would not be profitable or well patronized if they ran only within Indiana; passenger rail corridors will need to be regional to enhance their viability, connecting metropolitan areas in adjoining states with Indiana.
- **Chicago – Valparaiso commuter rail service.** Establishing a new commuter rail corridor between Valparaiso and Chicago also was suggested by one respondent.
- **Electrified, dedicated passenger rail line around Lake Michigan.** One respondent stated that a strong focus is needed on creating a dedicated, two-track, electrified passenger main



line around the south of Lake Michigan for corridor services from Chicago serving Indiana and Michigan.

13. Are there any state regulations or policies impacting passenger rail service? If so, what changes would you suggest?

- None of the respondents were aware of any state regulations or policies impacting passenger rail service. However, respondents also stated that while there are no state policies holding back passenger rail expansion, there did not appear to be any state policies or initiatives that were actively advancing or promoting passenger rail expansion.
- Many respondents expressed a desire to see more enthusiasm and support for passenger rail by state agencies and elected officials. Political will was recognized as being a key driver of future passenger rail investment.
- One respondent suggested INDOT might begin by developing a passenger rail policy and plan, and also an investment strategy, to help convince legislators, local officials, and the general public that Indiana desires and stands behind passenger rail.
- Several respondents were encouraged by the state's significant investment in the NICTD expansion projects for the South Shore Line commuter system. They hoped that the momentum from the successful implementation of those projects would encourage more investment in passenger rail transportation.
- Specific suggestions for INDOT and the State of Indiana included:
 - Work with local MPOs and support regional efforts to continue passenger rail planning, in particular by:
 - providing support or endorsements for grant applications to implement service
 - encouraging host railroads and service providers to support the project and support our grant applications
 - facilitating coordination and cooperation with host freight railroads and freight operators in passenger rail projects
 - Continue advancing and supporting the establishment of passenger rail service in the Indianapolis-Chicago and Fort Wayne-Chicago corridors
 - Take the lead on establishing new or reinstated intercity passenger rail services in Indiana, working with regional and local groups as needed
 - Expand funding for passenger rail under a similar justification that the state subsidizes long-distance air service from Indianapolis to Paris and San Francisco



- Work with communities on developing, upgrading, and maintaining passenger rail stations in the state so they encourage rail travel
 - Request and advocate for federal funding to establish passenger rail corridors
- One respondent indicated that the biggest regulatory impediment was the federal division of planning responsibilities for rail among different agencies. Intercity passenger rail planning is managed by the Federal Railroad Administration whereas commuter rail planning is managed by the Federal Transit Administration. Both modes operate on the national railroad network. As a result of the agency division, there is not an integrated planning approach to build layered, connected, and coordinated systems.
- One respondent also noted that without more national support and a national funding strategy, the regional initiatives will suffer. There is a need for a national passenger rail funding program to ensure states that the money they contribute with matching state funds will be worth the investment.
- Two respondents expressed their desire for Indiana to pass a law establishing a State Passenger Rail Commission, which would have the administrative authority to coordinate INDOT and regional planning efforts focused on developing new and expanded passenger rail corridors, so that projects can be appropriately planned for and federal grant funding can be awarded. The commission also should have the authority to request, receive, and dispense funds for passenger rail projects in the state.

14. Are the improvement plans for passenger rail service that are being pursued by the State of Indiana in line with what you would like to see? If not, what would you like to see changed?

- Four of the five respondents stated that they were not aware of any passenger rail improvement plans being pursued by INDOT.
- One respondent stated that they had seen INDOT's Hoosier Corridor Infrastructure Plan and supported INDOT's goals and objectives for the service. They believe it is a reasonable, achievable plan.
- Two respondents stated that they would like INDOT to play more of an active role in the establishment of a Chicago – Fort Wayne – Lina passenger rail corridor. Regional groups are willing to be applicants for grant funding but require INDOT support. In addition, respondents recognized that INDOT participation is required because the corridor connects Indiana metropolitan areas with adjoining states, meaning that policies and investment decisions will most likely be determined through multi-state partnerships.
- One respondent expressed strong support and appreciation for INDOT's backing of the NICTD Double Track NWI and West Lake extension projects, and also for the legislation passed by the Indiana state government to establish Transit Development Districts around NICTD commuter rail stations, which will promote transit-oriented development. The legislation was seen as a significant step for the state to take. It is expected to result in the



creation of new housing opportunities centered around walkable communities and commuter rail stations.

15. Are you optimistic, neutral, or pessimistic about the future of passenger rail in Indiana, and why?

- Two of the five respondents were optimistic about the future of passenger rail in Indiana. The recent attention paid by the state to expanding commuter rail service was seen as a positive step, and a sign that the Indiana legislature has been sold on the value of rail service. The success of the NICTD projects may encourage more interest in expanding passenger rail services elsewhere in the state.
- One of the five respondents was pessimistic about the future of passenger rail in Indiana. This respondent has not seen indications of a policy shift by INDOT or state legislators toward supporting intercity passenger rail service, or a national change in policy or funding, that would provide for an optimistic outlook.
- Two of the respondents were optimistic about the possibilities for passenger service in Indiana, but recognized that significant challenges surrounding funding and political support would have to be addressed. Respondents stated that there is strong regional support for new passenger rail services throughout the state, and that making those voices heard in an effective way by the Indiana state legislature and INDOT would be an important early step to take.
- One respondent noted that the expansion of passenger rail services in states such as Florida, Texas, and Virginia, and the reluctance of some communities to accept more highway widening projects, could generate more favorable outlooks toward passenger rail from politicians and the public. "I think it's a matter of waking up the powers that be," the participant said.
- Passenger rail in Indiana could be competitive and viable, if Indiana were ready to invest in a level of reliability and frequency that will attract travelers and generate benefits for the state. As one respondent stated: "It all comes down to keeping Indiana as a competitive place to live and work. Passenger rail can help play a role in maintaining and expanding Indiana's competitiveness."



Indiana State Rail Plan: Freight Rail User Interviews - February 2021

Background

Eleven interviews of freight rail users in Indiana were conducted by phone between October 2020 and January 2021. The interview subjects consisted of corporations that ship and receive products by rail, associations representing industries that use freight rail transportation, and economic development agencies and chambers of commerce representing some of the largest population centers in Indiana. Areas of economic activity represented by the interview subjects included agriculture, manufacturing, intermodal transportation, and logistics. The subjects interviewed had employee numbers ranging from less than 100 people to several thousand people, and membership rosters ranging from 5,000 to 25,000 people.

The groups targeted for interviews were those approved or recommended by Indiana Department of Transportation (INDOT). INDOT also reviewed and approved the interview questions prior to contacting participants. The consultant preparing the rail plan arranged and conducted the interviews. Each participant received an initial contact email that provided background information on the Indiana State Rail Plan, the role of passenger rail user interviews in the state rail plan development process, how the interview process would be conducted, and an invitation to participate and a request to establish an interview time. Each interview was confidential and lasted approximately one hour. Each participant was asked the same questions. The number of group participants in each interview ranged from one to two.

After the interviews, each participant received an email thanking them for their time. Attached to the email were notes prepared during the interview, to provide the interviewee for the opportunity to clarify or correct information they had provided. The revised notes that were returned to the consultant team were used as the basis for this summary report.

Forty groups were contacted with requests for interviews. Eleven groups agreed to be interviewed. Most survey respondents requested to remain anonymous.

Two participating agencies who agreed to be identified are:

- Conexus Indiana
- Indiana Chamber of Commerce



Executive Summary

This section provides a summary of the responses from participants addressing key topics discussed during the interviews. Detailed responses to specific questions will follow the executive summary.

Survey respondents' current use of freight rail transportation. Respondents in business sectors that use freight rail stated that they used rail transportation for between 75% and 100% of all shipments moving long distances, with the remainder of shipments moving by truck. When products are transported short distances or shipped locally, respondents use truck exclusively. Most rail users have direct rail service to their locations. Rail-truck transload facilities, warehouses, and intermodal terminals are used minimally.

Factors that would increase the use of freight rail. Respondents stated that their use of rail was dictated by the nature of the industries they were in, the market demand and prices for their products or raw materials, and the cost of transportation. Shifts in the marketplace or changes in demand are primary reasons that rail shippers would adjust their use of rail. With the growth of ethanol and soybean production within Indiana, more corn and soybeans are being trucked locally to nearby plants instead of being shipped by rail to distant markets, although the ethanol and soybean plants themselves generate long-distance rail shipments of outbound products. Shifts in the rail industry to the use of heavier rail cars and unit train lots of agricultural products will require rail-served facilities to invest in additional rail capacity, pay more for existing rail transportation services, or divert more shipments to truck.

Why Indiana businesses use freight rail transportation. The ability to ship large volumes and large objects at lower transportation rates than truck are the big advantages to using freight rail for Indiana businesses. Rail also provides Indiana businesses with critical access to markets beyond their immediate area.

Importance of dual-railroad access. Respondents stated that there is monetary value in having access to more than one Class I railroad, in that it makes the railroads more responsive to customer needs and presents the opportunity for lower freight rates. However, the opportunities to take advantage of dual-railroad service are limited. Many shipments are routed between origins and destinations where shippers have no choice of rail carriers. Some short lines have access to more than one Class I railroad, which provides an advantage to shippers served by the short line.

Importance of direct rail service to a facility, compared with rail access through a transload or intermodal facility. Direct rail service to facilities was a critical need for respondents in business sectors that use freight rail. In general, large-volume shippers prefer to have direct rail service, because it simplifies their business operations and lowers transportation costs. Economic development agencies continue to receive inquiries from companies that want direct rail service, although development agencies also support the expansion of intermodal and transload facilities.



Rail safety. All of the respondents stated that they had no concerns about the safety of rail transportation.

Quality of rail service received. Overall, the freight rail service received by survey respondents or their members allows them to carry out their business functions and remain profitable. In that respect, the service is effective. However, respondents in several sectors also stated that the rail service could be better. Availability, dependability, and rising costs and fees are the big challenges.

Reliability of freight rail service received. For customers that ship large volumes of goods or high-value products at consistent levels throughout the year, the freight rail service they receive is reliable. For customers that ship low volumes, seasonal volumes, or low-margin commodities at fluctuating levels throughout the year, the freight rail service they receive is inconsistent. In general, short line railroads are reliable and responsive to customer needs.

Impacts of COVID-19. Half of the respondents in business sectors that use freight rail did not experience any changes in production of their use of transportation. The other half experienced temporary shutdowns, owing to safety measures or reduced sales, but have now returned to pre-COVID levels of operation.

Recommendations for future freight rail investments. Respondents identified the following investment needs:

- Improvements in short line infrastructure
- Elimination of grade crossings
- Improvements to rail infrastructure at customer sidings and rail-served facilities
- Investments in new and expanded intermodal terminals and transload facilities
- Improvements to alleviate delays at rail bottlenecks such as Chicago and Cincinnati
- Restoration, reactivation, and preservation of out of service rail lines
- Added capacity on north-south rail lines to expand rail shipments

Impacts from industry adoption of Precision Scheduled Railroading practices. Half of the respondents in business sectors that use freight rail did not experience any changes in service as railroads changed operations to incorporate PSR practices. The other half experienced temporary service issues that have been resolved. A few respondents are now paying higher transportation costs and fees.

Potential actions for INDOT and State legislators. Overall, respondents were pleased with the programs that INDOT currently has in place to support freight rail transportation. Suggestions for other ways that INDOT and the State might consider supporting freight rail transportation and Indiana business included:

- Continue the State's focus on railroad safety, particularly grade crossing safety



- Increase funds available for short line improvements, both to maintain a state of good repair as well as to improve rail lines to handle heavier rail cars, longer trains lengths, and higher track speeds
- Fund improvements to rail-served facilities, such as the construction of new rail spurs, upgrading of existing spurs to accommodate industry standard equipment and operations, improved intermodal facility safety and throughput, additional locations where rail-served businesses can locate, and additional multimodal facilities in the state
- Establish grant programs for economic development or infrastructure improvement to attract new rail-served businesses and encourage existing businesses to increase their use of rail
- Bring together INDOT representatives, short lines, and economic development agencies to work together on economic development strategies
- Alleviate rail bottlenecks
- Develop a mechanism through which Indiana rail shippers can work out disputes and non-emergency issues with rail carriers
- Expand outreach efforts with stakeholders and the general public to help prioritize new investments and learn more about current infrastructure projects underway

None of the respondents were aware of any state regulations or policies impacting freight rail service. Several respondents stated that Indiana is a friendly environment for business, and that INDOT has been very supportive of them. Specific suggestions for INDOT and the State of Indiana concerning policies and regulations included:

- Continue making transportation improvements, and ensure that money earmarked for road and highway improvements is spent on roads and highways and not diverted to other uses
- Work with the City of Indianapolis to change or overturn a local city ordinance to allow rail traffic to be interchanged interchange with both CSX and NS in Indianapolis
- Work with railroads and local communities on increasing slow track speeds through cities, which would increase rail capacity to handle additional volumes and reduce vehicle wait times at grade crossings
- Work with railroad companies on agreements or mechanisms to allow shipments to move by rail between northern Indiana and southern Indiana, a short-haul move that railroads currently charge prohibitive rates for because the business margins do not appear to be favorable
- Expand policies supporting the intermodal component of transportation
- Explore whether opportunities or conditions exist for INDOT to permit ports to operate intermodal terminals



Major trends that could impact freight transportation in the future. Interview respondents identified the following trends as most impactful to how Indiana goods will be transported in the future:

- Truck driver shortage
- Federal trade policies and tariffs
- Lack of investment in transportation infrastructure
- Automation/autonomous vehicles
- Improved tracking and scheduling software
- Warehouse growth
- Increased demand for modal connectivity
- Larger truck sizes and weights on highways

Summary Responses to Specific Interview Questions

1. Does your organization or membership currently use freight rail service? If so, for what purpose? What percentage of total shipments is made by rail and what percentage is made by other transportation modes? (What are those other modes?)

- Respondents in business sectors that use freight rail stated that they used rail transportation for between 75% and 100% of all shipments moving long distances, with the remainder of shipments moving by truck. When products are transported short distances or shipped locally, survey respondents use truck exclusively. Most rail users have direct rail service to their locations. Rail-truck transload facilities, warehouses, and intermodal terminals are used minimally.
- The economic development and industry associations that were interviewed stated that they consider sites with rail service to be an economic advantage that they will market to corporations looking to locate in Indiana. The overall percentage of companies looking to relocate to Indiana that want on-site rail service has remained steady, one respondent noted, although the types of companies that are requesting rail service have changed. Several respondents identified logistics companies and advanced manufacturing companies as business sectors that are growing within Indiana that want rail-served sites.
- The challenge in certain regions is that a preponderance of new business development has been occurring in greenfield locations at the outer fringes of metropolitan areas, which may not have legacy rail and truck transportation infrastructure already in place.



2. What conditions would be necessary for you to increase your use of rail service, or convert existing shipments made with other modes to rail?

- Survey respondents indicated that their use of rail was dictated by the nature of the industries they were in, the market demand and prices for their products or raw materials, and the cost of transportation. Shifts in the marketplace or changes in demand are primary reasons that rail shippers would adjust their use of rail.
- In general, rail is favored for shipments moving long distances, whereas trucks will continue to be used for short-distance moves. In some business sectors, rail and truck occupy distinct segments and few shipments are competitive between rail and truck.
- Three survey respondents noted that use of rail might increase if the infrastructure and economics were in place to enable shippers to reach more distant markets. The types of infrastructure that respondents identified as necessary were improved rail-to-water transload facilities and port infrastructure to increase export shipments and additional rail-to-truck transload facilities to increase opportunities for rail use by companies that do not have direct rail access or do not want to truck a container to a Chicago intermodal ramp for shipment by rail. Expanding multimodal connectivity might also provide new traffic sources for rail to replace declining coal shipments, noted one respondent.
- One specific area that two survey respondents identified as a potential source for increased rail business that could be diverted from truck was shipments between northern Indiana and southern Indiana. The respondents discussed several past attempts to increase the use of freight rail between the two regions that were unsuccessful, owing in some cases to unfavorable rate quotes, since shipments would involve coordination with more than one railroad and require each to make a short-distance haul, as well as a municipal regulation in Indianapolis that prevents competitive rail interchanges from occurring in the city, even though several short line and Class I railroads meet there.
- One survey respondent mentioned that in the past decades, Indiana has seen the development of new, high-volume ethanol plants and soybean processing plants, which consume locally grown corn and soybeans. As a result, grain that used to be shipped out by rail to buyers out of state is now being shipped by truck to in-state ethanol plants and soybean plants. Indiana currently has 14 ethanol plants. The respondent cited a Purdue University study that calculated 40% to 50% of Indiana corn is now going to ethanol plants. The ethanol plants in Indiana receive 90% of their corn by truck.
- This trend has created a decline in rail shipments of grain from Indiana, although the ethanol plants themselves generate long-distance rail shipments of outbound products, which have increased as ethanol production has grown in Indiana. Ethanol plants ship most of their outbound product by rail, including ethanol shipped to fuel refiners for blending, as well as dried distillers' grain, a byproduct of ethanol production used as animal feed.
- In addition, over the past few decades, the survey respondent mentioned that railroads have priced grain transportation to favor unit train sizes that not all elevators can accommodate.



Grain shipments have grown from three-car lots that a local elevator could handle to 25-car lots, then 65-car lots, and now 90- and 100-car lots. This trend has required investments in large grain terminals and rail infrastructure at elevators that not all grain companies can afford to make.

- Two respondents also noted that occasional rail slowdowns or rail car shortages in the past have prompted some shippers to temporarily increase their use of trucks.

3. What are the most important aspects of freight rail service to you? (e.g., ability to move large volumes, favorable pricing, most suitable mode for a specific business process you are engaged in)

- The ability to ship large volumes and large objects at lower transportation rates than truck are the big advantages to using freight rail for Indiana businesses. As one respondent noted, if a company can save on shipping costs using rail, even a little bit, it has a dramatic impact on the bottom line.
- Rail is the preferred choice for commodities that are low value, heavy, or not time-sensitive. A shipment that needs a fast delivery will go by truck. One respondent also noted that oversized objects can't reasonably be moved by truck on Indiana highways and that rail is more efficient and convenient for those types of shipments.
- Depending on the commodity being shipped, a rail car can hold between 1.5 and 4 times more product than a truck. As a result, rail is much more efficient and economical for shipping large volumes long distances, provided the shipments can tolerate the longer transit times of rail.
- If Indiana businesses had to use trucks in place of their current rail shipments, their costs would rise. In addition, some business sectors might not be able to ship enough volume to meet customer demand or sustain current production levels. However, other respondents did state that price plays a big role in their transportation decisions, and if they were able to get a better price using trucks for their shipments, they would switch to truck.
- Rail also provides Indiana businesses with access to markets and suppliers beyond their immediate area. This attribute is critical for industries such as agriculture, since Indiana produces more crops than it can consume in-state, whereas there is demand for Indiana grain in consuming markets located long distances from the state, including overseas. Rail transportation allows Indiana agricultural producers to supply distant markets with large volumes at a lower transportation cost than truck. Using truck to ship grain would be cost-prohibitive. By using rail, Indiana companies become a cheaper source of agricultural products to distant buyers. Another respondent stated that rail is also the cheapest way for certain manufacturing companies to get materials from Asia where they are sourced.
- For companies involved in less-than-truckload transportation, the use of rail intermodal for a certain portion of shipments is a negotiating function that carriers use for the pricing of large contracts with customers.



- However, respondents noted that while low railroad rates are attractive, reliability is also important. Shipments need to be transported and rail cars need to be delivered for loading and unloading in a manner that allows Indiana businesses to remain competitive and economically sustainable.
- A good, healthy rail system is a true competitive advantage for U.S. farmers, stated one respondent.

4. Are you served by more than one railroad? If so, did having more than one railroad make a difference when you chose this location?

- Respondents stated that there is monetary value in having dual-railroad access, in that it makes the railroads more responsive to customer needs and presents the opportunity for lower freight rates.
- However, respondents also stated that the opportunities to take advantage of dual-railroad service are limited. Dual-railroad access is an advantage only when shipments are able to originate from facilities served by two railroads and also terminate or interchange at locations served by the same two railroads. Respondents told us that the majority of rail shipments that they or their members arrange are made to and from locations served by only one railroad, in which case no opportunity exists to choose among rail carriers. For shipments to gateway cities or large industrial regions like Chicago, dual-railroad access is possible and can be an advantage.
- Indianapolis, Frankfort, Lafayette, Anderson, Muncie, Princeton, New Albany, and Evansville are cities in Indiana directly served by both CSX and NS, although the properties that border or connect to both Class I's might not be in locations receptive to attracting new rail-served industrial or manufacturing entities. Some short line railroads also have interchanges with more than one Class I railroad, either in Indiana or in neighboring states.
- Respondents in business sectors that use freight rail stated that most facilities are served by only one railroad. Few facilities in Indiana have direct dual-railroad access. The most well-known exception is the steel mills along Lake Michigan, which are served by multiple carriers. If a single-railroad facility is located on a short line that interchanges with multiple Class I railroads, opportunities exist for shippers to have routing and price flexibility. As one respondent noted, the more connections you have, the more options you have, and having more options allows you to reach more markets, which allows you to offer better pricing.

5. Is rail service directly to your facility a critical need? Do you see value in having access to transload facilities, ports, or intermodal terminals for modal transfers such as rail-to-truck or rail-to-ship or barge?

- Respondents that use rail, or represent rail shippers, stated that direct rail service to facilities was a critical need for the business sectors that they were involved in, especially when shipping large quantities long distances. Respondents involved in agriculture stated that



having direct rail service was a top requirement for agricultural facilities such as grain elevators, in order to ship products to customers located long distances from Indiana. Much of the grain being shipped by rail from those facilities is moving in 85-car, 90-car, 100-car, and 120-car unit trains.

- A respondent in another business sector stated that having direct rail service simplified its operation and lowered costs. The direct rail service provided to its facility was reliable and reliability was critical to its operation.
- Four respondents currently use or represent members that use transloading or multimodal services. One respondent stated that some Indiana grain is being shipped in containers to Asia, while other grain shipments have been transloaded to barges at ports along the Illinois River or Ohio River for movement to Gulf Coast destinations.
- In general, large-volume shippers prefer to continue using direct rail service. One respondent involved in shipping large volumes by rail had explored the possibility of containerized intermodal shipping but found that the pricing was unfavorable compared to direct rail service. A high-volume respondent that had explored initiating rail-barge multimodal shipments of Indiana agricultural products to Gulf Coast destinations found that the river port infrastructure to accommodate rail-barge transfers was inadequate.
- Economic development agencies and trade groups interviewed stated that they continue to receive inquiries from companies seeking to locate in Indiana that want direct rail service. However, these groups also advocate for the expansion of multimodal facilities. They believe that if more multimodal transfer infrastructure were built in Indiana, more companies would use it. One respondent cited the Senate Avenue terminal in Indianapolis as an example of a successful multimodal transfer facility that could benefit from expansion based on its continued growth and growing importance to businesses in the region without direct rail access.

6. How confident or concerned are you that your rail shipments will move safely, without incident?

- All of the respondents stated that they had no concerns about the safety of rail transportation. As one respondent stated, rail is one of the safest ways to move goods, and railroads will be even safer with the installation of Positive Train Control. Respondents specifically noted that railroads do a good job addressing safety and security issues, the rail system has good emergency response procedures and practices, and that even the smallest short line railroads spend quite a bit of time on safety and security training.
- One respondent stated that blocked grade crossings are an area of concern for vehicular traffic, as rail volumes have grown and train lengths have increased. Cargo theft and vandalism was an area of concern cited by another respondent.
- One respondent noted that INDOT has been a helpful partner in maintaining and improving railroad safety in the state by providing funds to help keep short line railroads maintained.



7. How would you rate or describe the freight rail service you are currently receiving? How effectively does it meet your business needs?

- Overall, the freight rail service received by survey respondents and their members allows them to carry out their business functions and remain profitable. In that respect, the service is effective.
- However, respondents in several sectors also stated that the rail service could be better. Availability, dependability, and rising costs and fees are the big challenges. Companies that ship and receive by rail seasonally or on demand, instead of consistently year-round, are more likely to experience service inconsistencies.
- In the past few years, as Class I railroads have placed more emphasis on improving operational efficiency and cutting costs, two respondents stated that service inconsistencies have increased and the cost of doing business with the railroads has gone up.
- Two respondents noted that railroads are not structured in a way to be responsive enough to attract more volumes or quickly respond to changes in demand, although one respondent involved in economic development stated that railroads in Indiana are easy to work with and have become more willing participants in attracting new business.
- Three respondents praised the short line railroads in Indiana for being good partners that will go above and beyond to serve their customers.

8. How reliable is your freight rail transportation service? How far in advance do you try to schedule rail shipments from the time that you will require the use of rail?

- Responses can be summarized as follows: For customers that ship large volumes of goods or high-value products at consistent levels throughout the year, the freight rail service they receive is reliable. For customers that ship low volumes, seasonal volumes, or low-margin commodities at fluctuating levels throughout the year, the freight rail service they receive is inconsistent.
- Respondents that had identified service inconsistency as an issue stated that trains generally showed up within windows of time that permitted businesses to continue to conduct their operations, but that frequent vigilance and communication with the railroads was required to ensure that cars would arrive or shipments would be delivered. Rail-served facilities with large fluctuations in demand require more work for the railroads to accommodate, which can increase the potential for unreliability.
- Three respondents mentioned that short lines were reliable and responsive to customer needs.
- Two respondents stated that Class I railroads were reducing the windows of time for shippers to load and unload rail cars without fee penalties but were unable to provide shippers with accurate arrival times of rail cars at their facilities. Respondents shared examples of facilities that had called in employees to help unload rail cars within the shorter timeframes required



by the railroad, only to have the railroad deliver the cars 8 hours late, after the employees that were called in had gone home.

- However, one respondent involved in large-volume shipments of products by rail stated that the railroads provided high visibility into the tracking of shipments and planned arrivals of empty cars once they were ordered. Another respondent stated that working with short line railroads helped to keep cars that were ordered moving to their destined facilities and improved visibility into anticipated rail car deliveries.
- Respondents stated that solutions such as placing GPS monitors on rail cars or receiving automated notifications 2 hours prior to the arrival of their cars could significantly improve their ability to match employee resources with Class I railroad loading and unloading requirements. Two respondents stated that having sufficient rail infrastructure installed at a facility can help absorb service fluctuations and reduce the risk to ongoing business operations from service inconsistencies but noted that only companies with large capital budgets are able to make such investments.
- Two respondents noted that Class I railroads no longer have the flexibility to adjust service levels or respond quickly to changes in market demand. Yet the types of businesses that have the most potential to expand their use of rail and replace lost coal volumes, such as advanced manufacturing and logistics companies, want transportation providers with flexibility.
- Respondents stated that car orders could be made days, weeks, or months in advance, depending on the type of shipment, type of equipment, and consistency of traffic to and from the facility. Rail shippers with consistent service level will provide forecasts of equipment needs or projected shipping volumes at regular intervals, typically monthly or as rolling forecasts over multiple months, which helps improve rail service consistency.
- Two respondents stated that car availability had been an issue on some occasions. Most of the survey respondents involved in rail transportation primarily used rail cars that were leased or owned, either directly by them or by their customers, which they stated reduced their concerns about car supply and car shortages.

9. Has the recent COVID-19 pandemic changed how you use rail freight or the volumes that you ship by rail?

- None of the survey respondents stated that they had changed how they used rail freight as a result of the COVID-19 pandemic.
- Half of the respondents in business sectors that use freight rail stated that their production and shipment volumes did not experience significant changes as a result of the COVID-19 pandemic. The other half of respondents stated that their production and shipment volumes were temporarily suspended or declined because of facility shutdowns, owing to safety measures or reduced sales, but that by the end of 2021 production volumes had returned.



- Respondents representing the agricultural industry stated that business volumes did not significantly change as a result of the pandemic, although shipments to certain markets changed based on a reduced demand for U.S. export crops. Two respondents noted that some business sectors, such as warehousing, food products, and paper, increased their use of truck and rail transportation during the pandemic.
- Five respondents stated that one of the biggest impacts that the COVID-19 pandemic had on their use of rail was the reduced level of rail transportation service that occurred during mid-2020. As traffic levels fell in late spring and summer, railroads reduced their service levels and employee ranks, but were slow to ramp up operations when demand for rail shipments began to rebound in late summer and fall 2020.

10. What timeframe do you anticipate your production and freight shipping processes to return to pre-pandemic levels, if you foresee them returning?

- Three-fourths of the survey respondents stated that their production or the production in the business sectors they represent had returned to pre-pandemic levels or higher before the end of 2020. Three respondents stated that their concern going into 2021 was that a second wave of COVID cases might impact global supply chains
- Longer term, respondents identified other areas of concern instead of COVID that could impact production levels or how they ship and receive goods, including: changes in global demand for U.S. exports, impacts from weather, changes in federal policies or regulations regarding energy use or ethanol production, truck driver shortages as demand for truck shipping increases, and shifts in supply chains to near-shoring of raw materials that are currently being imported from overseas. Freight rail carriers could benefit if some of these changes were to occur.

11. Are there specific types of improvements to rail infrastructure or rail service that would benefit your business? If so, what are they, and how would they help? (better clearances or weights, improvements in local/first-or-last mile shipment, reliability, bottlenecks, safety, shipping times, pricing, better availability of equipment, better communication/data about shipments, etc.)

Recommendations for freight rail investment were centered on the following themes:

- Improvements to short line infrastructure: 3 respondents
- Elimination of grade crossings: 3 respondents
- Improve rail infrastructure at customer sidings and rail-served facilities: 2 respondents
- Construct new and improve existing intermodal terminals and transload facilities: 2 respondents
- Alleviate delays at rail bottlenecks such as Chicago and Cincinnati: 2 respondents
- Restore, reactivate, and preserve out of service rail lines: 2 respondents
- Add capacity on north-south rail lines to expand rail shipments: 1 respondent



Additional information on these recommendations follows:

- **Improve short line infrastructure:** Critical investments include:
 - Upgrading track and bridges to accommodate today's industry standard 286,000-pound freight cars.
 - Upgrading track and bridges to increase track speeds and improve transit times of freight shipments.
 - Maintaining track and bridge structures in a state of good repair. The ability to move heavy goods over a bridge network was seen as especially important.
 - Adding or lengthening sidings, yard tracks, and other infrastructure to accommodate longer train lengths and the expanded use of unit trains
- One respondent stated that the biggest challenge for Indiana railroads is to get all rail lines to accommodate industry standard 286,000-pound rail cars. That effort may require replacing inadequate or older rail and upgrading bridges to handle heavier car weights. The driver of increased rail demand is bigger cars and heavier cars.
- Respondents recognized that short lines generally do not have large reserves of cash to make these types of significant infrastructure investments, but those investments are critical for Indiana businesses that depend on short line railroads.
- **Eliminate highway-rail grade crossings:** Grade crossing blockages and train horn noise are recurring complaints in local communities. One respondent stated that the number one rail topic that mayors in communities in and around Indianapolis want to talk about is stopped trains on grade crossings. They are worried about safety issues resulting from blocked roadways, and longer vehicle wait times because of longer trains. Respondents recognized the work that INDOT has done in the past to improve or eliminate locations where road traffic and rail traffic intersect and hoped to see more improvements in the future.
- One respondent also encouraged INDOT to explore investments in grade-separated belt-line railroads around metropolitan regions to eliminate grade crossing delays in downtown areas and densely populated neighborhoods on lines where track speeds are slow and grade crossings are numerous. Another respondent also encouraged INDOT to provide funds for grade crossing elimination as part of incentive packages for attracting new businesses to the state.
- **Improve/expand customer sidings and facilities to meet new rail industry standards:** Respondents stated that improvements to rail-served facility improvements were a need that INDOT could help support with funding programs. Investments to expand and modernize rail infrastructure at customer facilities are necessary to accommodate the changes that are occurring in freight rail transportation. Examples of specific investments included:
 - Adding rail infrastructure to enable industries to accommodate unit trains of 100 cars or more, which have become the preferred method for Class I railroads to move single-commodity products including grain and ethanol.



- Adding or modernizing rail infrastructure to accommodate industry standard 286,000-pound freight cars. Older rail cars with lighter loading weights are becoming harder to find and more costly to operate.
- Adding rail infrastructure to provide staging locations for inbound and outbound trains or blocks of rail cars away from loading and unloading areas so that changes to operating plans, shifts to unit train operations, and unscheduled train arrivals and departures do not interfere with customer loading/unloading activities. These types of investments are especially needed at facilities used by more than one railroad, where tracks might be blocked by one railroad's train waiting to arrive or depart, which then prevents other railroads from accessing the site.
- Investing in these types of improvements will enable Indiana business to maintain a competitive stance in the marketplace, keep operating costs low, and ensure continued reliable and cost-efficient freight rail service at their facilities.
- **Construct new and improve existing intermodal terminals and transload facilities:** Investments that leverage Indiana's hub environment were identified as important. Expanding the capacity and availability of rail-truck intermodal ramps and transload terminals would provide more opportunities for Indiana businesses to use rail for long-haul moves and trucks for first-mile and last-mile transportation, enabling rail to become an extension of the highway infrastructure. One respondent noted that supply chains are expected to shift as a result of COVID, which will change how products are shipped to and from Indiana and require more locations where modal transfers of freight can occur.
- Another respondent recommended making investments to improve the safety of access to rail intermodal facilities. In particular, investments to existing facilities were needed to create: safer and quicker access to intermodal terminals for trucks, better traffic circulation within the terminals, faster pickup and delivery procedures, and modernized chassis and intermodal equipment.
- **Alleviate delays at rail bottlenecks:** Investing in additional rail capacity at locations where current rail operations are experiencing constraints would benefit Indiana shippers. The top two locations identified as operational chokepoints that could benefit from additional investment were Chicago and Cincinnati. These are major rail hubs, but they are also bottlenecks to providing efficient service. Improving these bottleneck areas will improve freight rail transit overall.
- **Restore, reactivate, and preserve out of service rail lines:** Respondents expressed concern that the value of Indiana's rail network was not being realized, particularly with rail lines that currently are out of service but could provide commercial benefits if they were restored. Key investments that respondents identified as areas where INDOT support could make a difference included:
 - Restoration or reconstruction of out of service rail lines to provide more access options or establish dual-railroad access for shippers and short lines. One particular investment that was identified as an immediate need was the reconstruction and



restoration of service on 14 miles of rail line between Bringhurst and Frankfort, which would improve market competitiveness for existing shippers north-central Indiana by providing dual-railroad access and also would help attract additional business to local rail lines in the region.

- Investments to preserve rail lines in Indiana for rail freight transportation and not conversion to trails or other non-freight rail uses.
- As one respondent stated: “Every piece of rail we have in the state of Indiana is precious. We need to keep the tracks active and efficient.”
- **Add capacity on north-south rail lines to expand rail shipments:** One respondent recommended improving capacity of north-south rail lines to encourage more traffic to shift to rail and be positioned for shifts in traffic as supply chains move from east-west lanes (linked to suppliers/buyers in Asia) to north-south lanes (linked to suppliers/buyers in Central America). For those alternate supply chains to function successfully, capacity and connectivity will be needed we need on rail lines that run north-south through the state as well as rail lines that run east-west. The respondent stated that finding ways to divert more freight shipments to rail along the I-65 corridor from Indianapolis to Louisville or Indianapolis to Chicago could present a great long-term opportunity to grow rail activity.

12. Has your organization experienced any changes in your rail service in the recent past with the industry adoption of Precision Scheduled Railroading (PSR), a fixed schedule for shipping, or other freight rail service or policy changes? If so, how has your service changed and what has been the result for you? Have any of these changes caused you to increase or decrease the amount that you are shipping by rail?

- Two respondents in business sectors that use freight rail stated that they had not experienced changes in rail service to customers as a result of the adoption of PSR practices by Class I railroads.
- Two other respondents stated that they had experienced or heard of service issues occurring when railroads first began making PSR-related changes. but that those issues were resolved and that service had returned to the same levels provided before the adoption of PSR. Respondents stated that, from their perspectives, service to shippers did not improve as a result of PSR but did not become worse either.
- Two additional respondents stated that they experienced or heard of higher costs and fees imposed on customers as a result of PSR, and that service to lower-volume or lower-priority customers needed improvement.
- Five respondents stated they did not have the perspective to answer the question.

13. Are there any state or local policies or regulations impacting your freight movements or rail service? If so, what changes would you suggest?



- None of the respondents were aware of any state regulations or policies impacting freight rail service. Two respondents stated that regulations and policy changes at the federal level had impacted their use of freight transportation and increased their costs, notably federal requirements for trucking companies such as hours of service for drivers, recordkeeping requirements, and OSHA requirements.
- Several respondents stated that Indiana is a friendly environment for business, and that INDOT has been very supportive of them. Regulations have not been a barrier to progress.
- Specific suggestions for INDOT and the State of Indiana concerning policies and regulations included:
 - Continue making transportation improvements. Ensure that money earmarked for road and highway improvements is spent on roads and highways and not diverted to other uses.
 - Work with the City of Indianapolis to change or overturn a local city ordinance to being allowing rail traffic to be interchanged interchange with both CSX and NS in Indianapolis.
 - Work with railroads and local communities on increasing slow track speeds through cities, which would increase rail capacity to handle additional volumes and reduce vehicle wait times at grade crossings.
 - Work with railroad companies on agreements or mechanisms to allow shipments to move by rail between northern Indiana and southern Indiana. That's a short-haul move that railroads charge prohibitive rates for, because the business margins do not appear to be favorable.
 - Expand policies supporting the intermodal component of transportation.
 - Explore whether opportunities or conditions exist for INDOT to permit ports to operate intermodal terminals.

14. What are the most effective ways that public agencies such as Indiana DOT could support or improve the rail service that you receive, or help your company's use of freight rail transportation? Have you used one or more public programs to enhance your rail access?

- Overall, respondents were pleased with the programs that INDOT currently has in place to support freight rail transportation.
- Several respondents stated that the Indiana Rail Service Fund has been extremely beneficial for short line railroads in Indiana and has allowed them to accelerate maintenance on our short lines and upgrade tracks to handle industry-standard 286,000-pound cars. The INDOT funds for grade crossing removals also have been beneficial and have enabled railroads to cut maintenance costs while reducing the interaction between railroads and vehicles.
- However, several respondents also believed that freight rail transportation, and its importance to Indiana's economy, should receive more recognition and support from the State and from INDOT. They noted that railroads receive a small share of overall state



funding. Respondents suggested other ways that INDOT and the State might consider supporting freight rail transportation and Indiana business that use rail. These included:

- Maintain railroad safety, particularly grade crossing safety: 4 respondents.
- Increase funding available for short line improvements, both to maintain a state of good repair as well as improve rail lines to handle heavier rail cars, longer trains, and higher track speeds: 3 respondents
- Fund improvements to rail-served facilities to build new rail spurs, upgrade existing spurs to accommodate industry standard equipment and operations, improve intermodal facility safety and throughput, expand locations where rail-served businesses can locate, and increase the number of multimodal facilities in the state: 3 respondents
- Establish grant programs for economic development or infrastructure improvement: 3 respondents.
- Bring together INDOT representatives, short lines, and economic development agencies to work together on economic development strategies: 2 respondents
- Alleviate rail bottlenecks: 2 respondents.
- Develop a mechanism through which Indiana rail shippers could work out disputes and non-emergency issues with rail carriers: 2 respondents.
- Expand outreach efforts with stakeholders and the general public to help prioritize new investments and learn more about current infrastructure projects underway: 1 respondent.

Additional information on these recommendations follows:

- **Maintain railroad safety.** Continue state programs on grade crossing safety and increase their funding levels. Also make sure that railroads are following safety regulations and standards.
- **Increase funding available for short line improvements.** The INDOT grant system is helpful for smaller short lines, but more investments need to be made, both to maintain infrastructure in a state of good repair and improve service. One respondent stated that increasing funding levels for the Indiana Rail Service Fund should be a top priority for INDOT to enable short lines to make needed capital improvements. One area of emphasis identified was upgraded track to allow for higher track speeds and faster transit times, which would help rail-served businesses.
- **Fund improvements to rail-served facilities.** Recommended areas of investment include:
 - Funding to upgrade rail-served customer facilities to accommodate unit trains, upgrades for 286,000-pound freight cars, and construction of staging areas for inbound and outbound trains that would not block access to loading/unloading locations.



- Funding for intermodal terminals to: improve the roadway access to rail intermodal facilities to enhance traffic safety; improve the traffic circulation and processes associated with picking up or dropping off trailers and containers to enhance safety and reduce pickup/delivery times; modernize chassis and equipment at intermodal facilities to improve safety and reduce pickup/delivery times.
- Funding to add truck-rail intermodal and transload facility infrastructure and capacity. These investments include adding facilities at more locations and expanding the capacity of existing facilities.
- Funding to build new rail spurs to facilities to begin their use of rail or increase their use of rail
- Funding for site remediation of properties to be redeveloped for use by rail-served businesses. Northwest Indiana in particular has a lot of protected lands that cannot be used for rail or business expansion. This directs new development or redevelopment to existing sites. However, some existing vacant sites require remediation before they can be redeveloped. Companies are reluctant to undertake that process, and as a result may look at relocation options in other places. INDOT could help future site development and business relocation by making funding available for remediation of sites that could be rail-served.
- **Accelerate private investment with grant programs for economic development or infrastructure improvement.** Establish programs that match public dollars with private dollars to accelerate investment in rail infrastructure and encourage economic development. Rail-served sites are still in demand from companies looking to relocate or expand. INDOT could adapt the successful model established by the Indiana Rail Service Fund to start a matching grant program to construct new rail spurs.
- **Establish a forum or mechanism that connects INDOT personnel and short lines with economic development agencies.** Railroads could use help getting better connected to economic development organizations, so they are included in future development plans. The state could play a key role by connecting INDOT representatives and short line railroads with local and regional economic development teams to help the agencies pursue economic development strategies. These connections could also help the local agencies develop or enhance programs that focus on attracting rail-served industries to the state and incentivize existing companies to begin to use rail or increase their use of rail.
- **Alleviate rail bottlenecks.** As rail traffic grows in the future, relieving chokepoints will become even more important. Building capacity to establish alternate rail hubs and gateways that avoid the bottlenecks in Chicago and Cincinnati could also be part of the investment strategy to make rail operations more fluid.
- **Establish a mechanism through which Indiana rail shippers could work out disputes and non-emergency issues with rail carriers.** Having a state resolution process that shippers could use without going to the courts or the federal government would be an effective way to resolve smaller disputes before they become large disputes or result in catastrophic



incidents. One respondent stated that INDOT has been helpful before in some isolated mediations. Having an established mechanism in place for dispute resolution in the state, perhaps through arbitration or an administrative law solution, would be beneficial for Indiana rail shippers. INDOT may also want to work through the Surface Transportation Board on issues that matter to INDOT and Indiana rail shippers.

- **Expand outreach efforts with stakeholders and the general public.** Specific actions recommended include:
 - Surveying groups to determine future transportation needs
 - Holding more public information meetings in areas where big infrastructure projects will be occurring
 - Communicating information regarding transportation disruptions such as road closures or utility locations
- One respondent expressed support and appreciation for INDOT’s recent focus on viewing the users of infrastructure as their customers, and INDOT’s communications with corporate customers to help prioritize improvements. That approach has been well-received.
- One respondent stated that under previous administrations, INDOT would invite the Class I railroads to visit with them and the governor once a year to confidentially discuss planned improvements in the state. The respondent characterized those meetings as a valuable way to find common ground and identify public economic initiatives that could align with the private investments being planned to help attract business to the state.

15. What are the major industry trends or transportation issues that could have the greatest impact on our company or how you ship and receive goods (e.g., truck driver shortages, automated vehicles, increasing truck weights, changes in trade policies or tariffs, e-Commerce, 3-D printing, etc.)?

- Interview respondents identified the following trends as most impactful to how Indiana goods will be transported in the future:
- **Truck driver shortage:** 4 respondents
 - The truck driver shortage is a key issue. Trucking companies are struggling with driver hiring and retention. Logbook regulations and hours of service rules also have had an impact on driver availability. As more states pass laws legalizing marijuana, respondents expect to see further truck driver shortages.
- **Federal trade policies and tariffs:** 4 respondents
 - Trade policies and tariffs play a significant role in the market demand and transportation of products to and from Indiana. Indiana exports agricultural products such as soybeans and imports fertilizer and raw materials for production processes.
- **Lack of investment in transportation infrastructure:** 4 respondents
 - Respondents stated that infrastructure to support all modes of transportation need more investment. Other transportation modes are experiencing reliability problems



that could drive more shipments to rail, if rail infrastructure was in place to handle the additional traffic.

- Railroads and rail-served customer facilities need investments to accommodate bigger freight cars and unit train movements, or risk pushing more shipments to truck. The lack of investment in waterway infrastructure—upgrades to river locks and dams—also will impact freight transportation more severely in the future. Highway infrastructure needs modernizing and expansion to accommodate continued increases in truck traffic, improve safety, add capacity, and reduce congestion. Investments are also needed in infrastructure to support trucking, such as truck parking locations, rest area, and other facilities.
- Respondents were appreciative of previous efforts in Indiana to raise fuel taxes and fees to support and enhance roadway infrastructure, although they believed more would need to be done in the future. One respondent summarized the issue as follows: “If we don’t modernize our rail and water infrastructure, we will miss out competing in global markets.”
- **Automation:** 3 respondents
 - Automation and autonomous vehicles could change the costs and mode selection of freight transportation, but those changes have a longer time horizon and unclear path forward. Public opinion, safety concerns, and future regulations may restrict the adoption of driverless trucks.
- **Improved tracking and scheduling software:** 2 respondents
 - Better software is needed to allow freight shippers to track shipments and schedule transportation. Freight shippers continue to ask railroads and trucking companies for more visibility into their shipments. Applications and software that allow shippers to follow the progress of their shipments, even in real time, will become more important to shippers in the future as the demand for faster delivery times and the demand for shipment transparency continues to grow.
- **Warehouse growth:** 2 respondents
 - More warehouses and larger warehouses are becoming common in metropolitan areas to better absorb supply chain disruptions, accommodate the growth in E-commerce shipping, and respond more quickly to orders from customers.
- **Increased demand for modal connectivity:** 2 respondents
 - Respondents believed that demand was growing for commercial sites that combine warehousing with infrastructure to accommodate road, rail, and air freight. They also stated that demand will grow for additional rail-truck intermodal and transload terminals. The near-shoring of supply chains could contribute to this demand.
- **Larger truck sizes and weights on highways:** 1 respondent
 - Bills have been introduced in previous Indiana state legislative sessions to permit oversized loads on Indiana highways. Those bills have not passed. However, one respondent expects the issue to surface again as proposed legislation. If the bill



continues to be defeated or the issue remains unresolved, oversized shippers may consider increasing their use of rail.

- Other trends that could change the demand for transportation or how freight is shipped include:
 - Federal investments and new transportation policies under the new administration
 - Policies establishing or mandating sustainability goals or requirements
 - Policies establishing or expanding resiliency goals
 - COVID recovery, as sectors such as the service industry rebound
 - 3-D printing and reduced reliance on supply shipments from overseas
 - Rising liability requirements and costs for trucking
 - Regionalism — consolidating cities and counties. Local governments need to work together as a region on labor, transportation, economic development, freight rail, and highway issues
- One respondent stated that the state may want to think long term about where demands might be placed on the rail system if these trends continue.

16. What grade would you give to the freight systems in Indiana on a scale of 1-10 (1-worst; 10-excellent)?

The table below presents the percentage of rankings that the interview respondents provided for each transportation mode.

Mode Ratings:	1	2	3	4	5	6	7	8	9	10	n/a
Air cargo			10%	10%			10%		20%	10%	40%
Freight rail					10%	20%	40%	10%	10%		10%
Highway						30%	20%	20%	30%		
Pipeline				10%				20%		10%	60%
Ports				10%			30%	20%	10%	20%	10%
Multimodal terminals			10%	10%	10%		20%	10%			40%
Waterway					20%	10%	10%	10%		10%	40%



17. Do you have any additional comments?

- Four respondents reiterated the need for more investment in transportation infrastructure overall in Indiana for all modes.
- Rail freight, in particular, was mentioned by respondents as a mode that could play a more significant role in transportation if additional improvements were made that added capacity, promoted multimodal connectivity, and encouraged economic development.

Indiana Department of Transportation State Rail Plan Survey Response Summary

Wednesday, January 06, 2021

2318

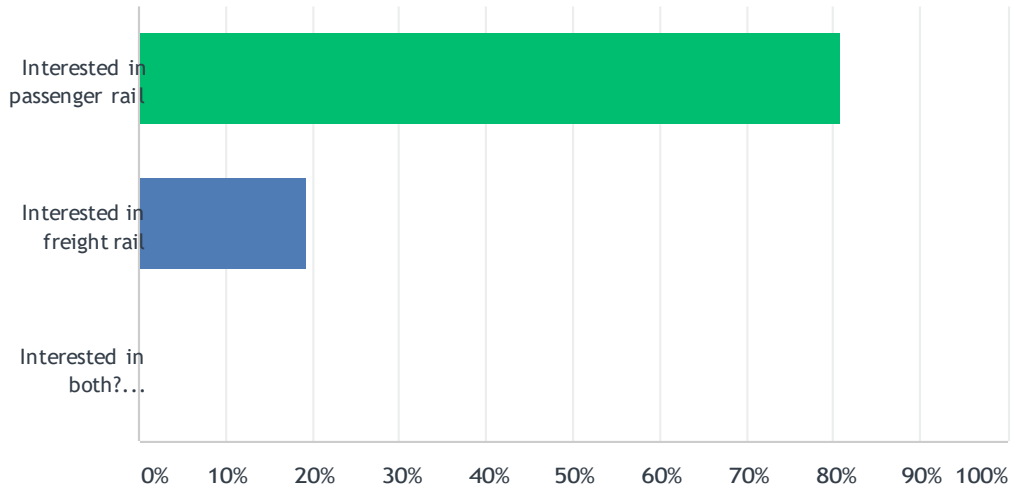
[View Summary](#)

Total Responses (Complete Responses: 1056)

Date Created: Thursday, October 01, 2020

Q1 You have the option to complete one survey on either freight and passenger rail or you can complete both surveys. Choose which survey you would like to start:

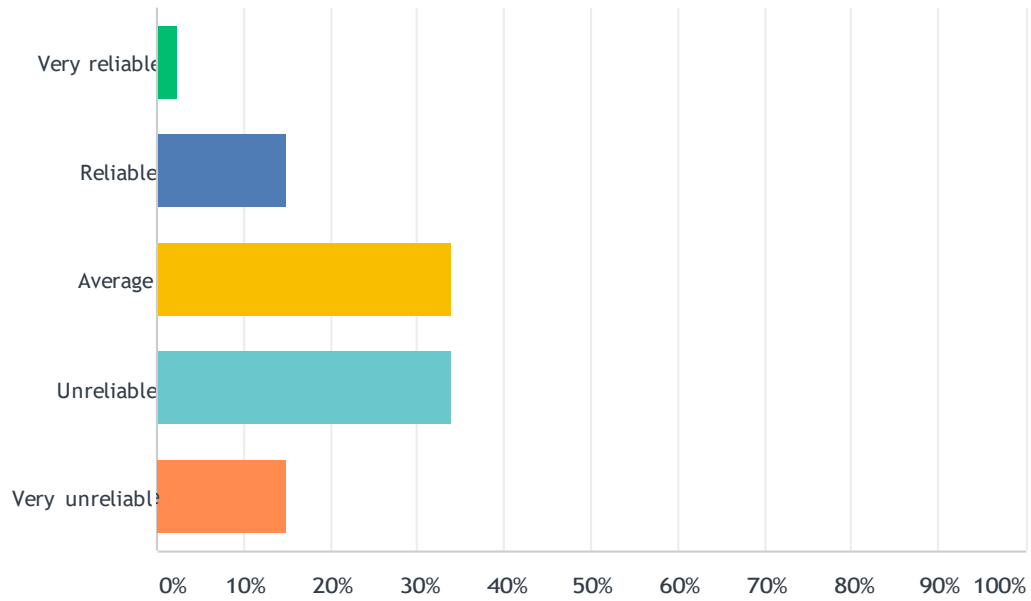
Answered: 1,198 Skipped: 0



ANSWER CHOICES	RESPONSES	
Interested in passenger rail	80.72%	967
Interested in freight rail	19.28%	231
Interested in both? (passenger and freight rail)	0.00%	0
TOTAL		1,198

Q2 How reliable is the overall rail transportation system in Indiana?

Answered: 541 Skipped: 657



ANSWER CHOICES	RESPONSES	
Very reliable	2.40%	13
Reliable	14.79%	80
Average	33.83%	183
Unreliable	33.83%	183
Very unreliable	15.16%	82
TOTAL		541

Q3 What improvements would help improve the reliability of the rail transportation network in Indiana? (Please list)

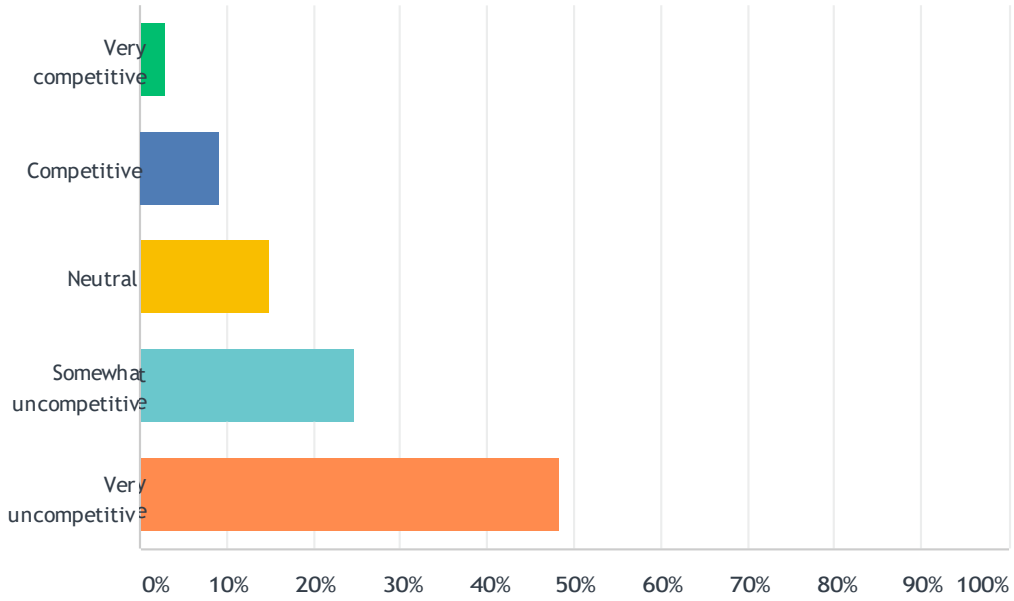
Answered: 541 Skipped: 657

(Full responses are in chapter 8 of the INDOT State Rail Plan)

Answered: 541 Skipped: 657

Q4 How competitive is the rail network compared to other modes in Indiana?

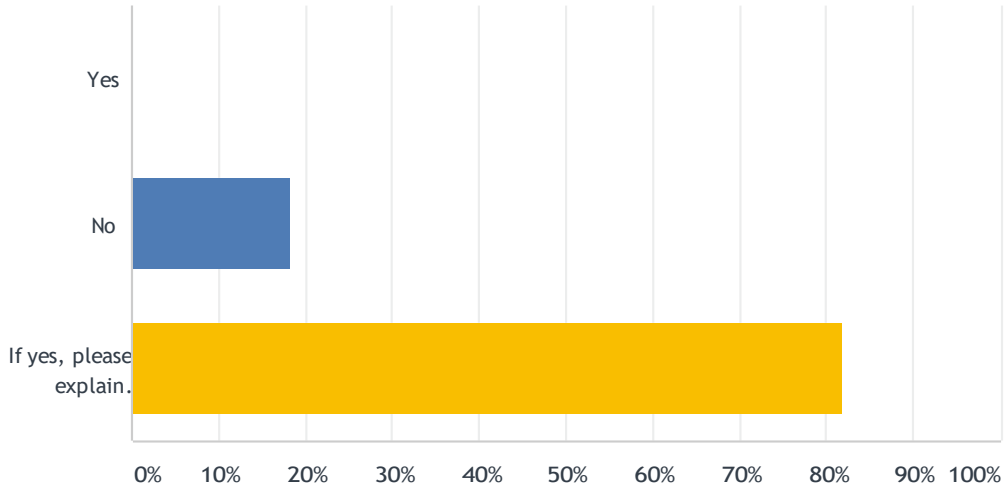
Answered: 541 Skipped: 657



ANSWER CHOICES	RESPONSES	
Very competitive	2.96%	16
Competitive	9.24%	50
Neutral	14.79%	80
Somewhat uncompetitive	24.77%	134
Very uncompetitive	48.24%	261
TOTAL		541

Q5 Are there specific projects that would help improve the competitiveness of the rail network in Indiana?

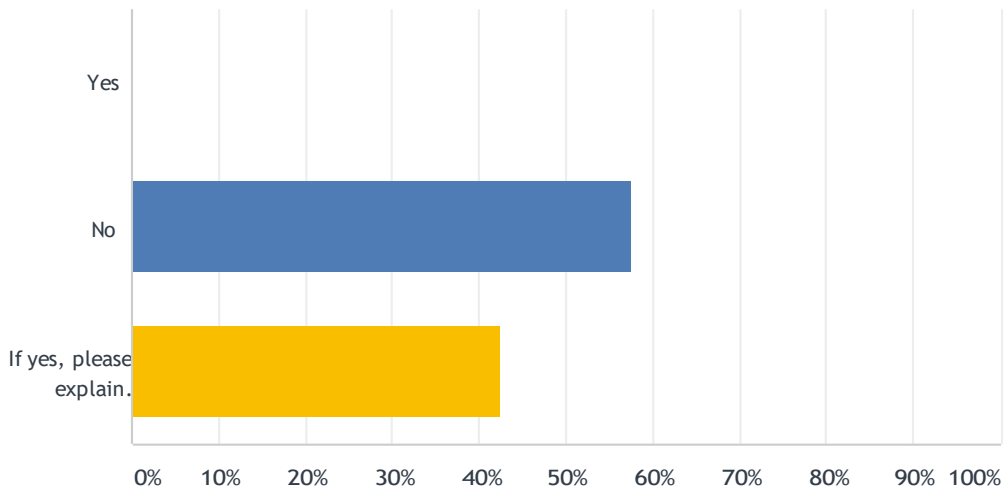
Answered: 541 Skipped: 657



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	18.11%	98
If yes, please explain.	81.89%	443
TOTAL		541

Q6 Are there federal and state transportation regulations that are a hindrance or obstacle to economic competitiveness in the state?

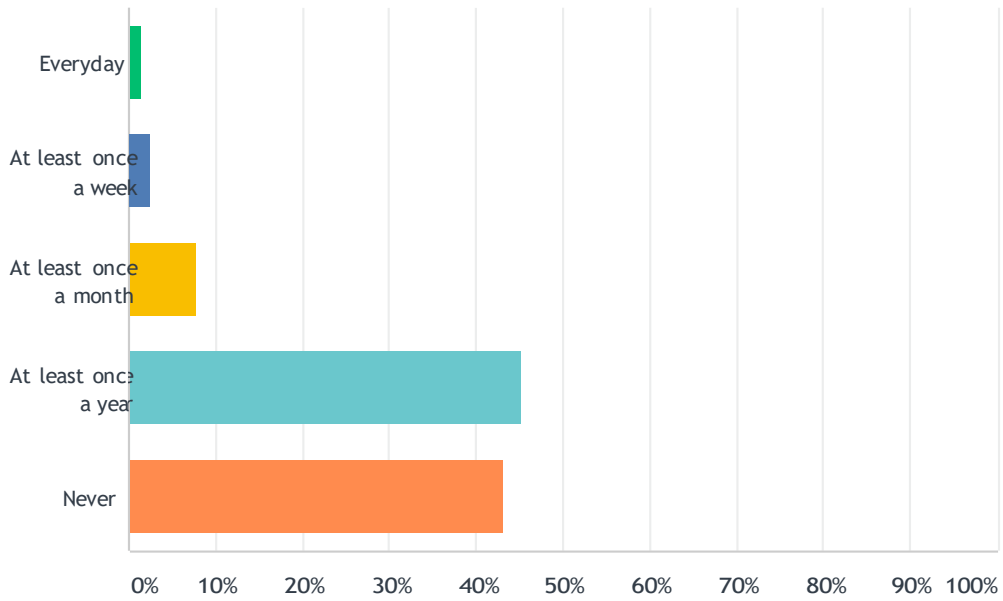
Answered: 541 Skipped: 657



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	57.49%	311
If yes, please explain.	42.51%	230
TOTAL		541

Q7 How often do you use rail now?

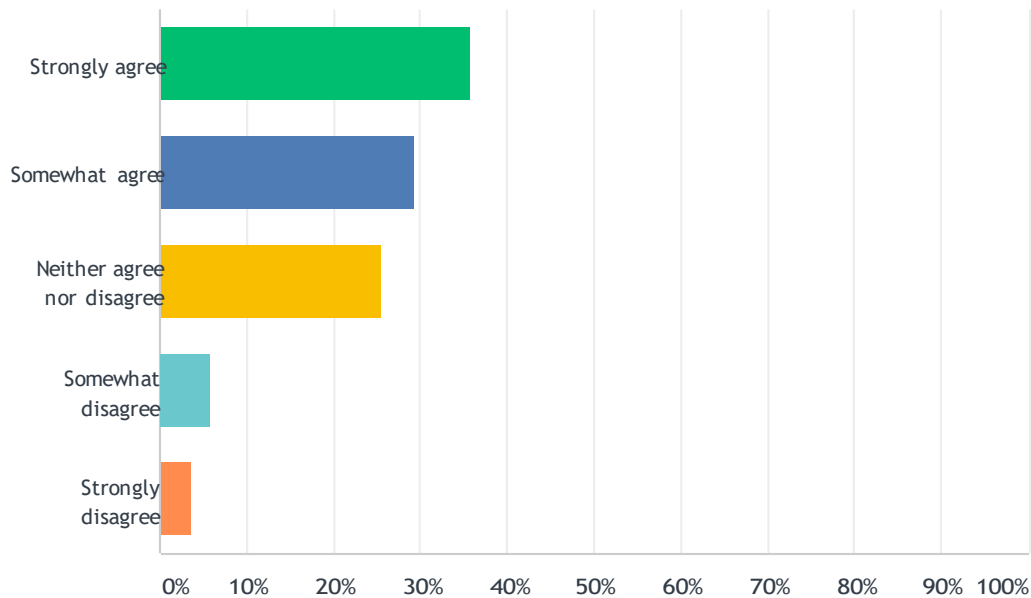
Answered: 541 Skipped: 657



ANSWER CHOICES	RESPONSES	
Everyday	1.48%	8
At least once a week	2.59%	14
At least once a month	7.76%	42
At least once a year	45.10%	244
Never	43.07%	233
TOTAL		541

Q8 How much do you agree with the following statement? Railroads in my area are safe.

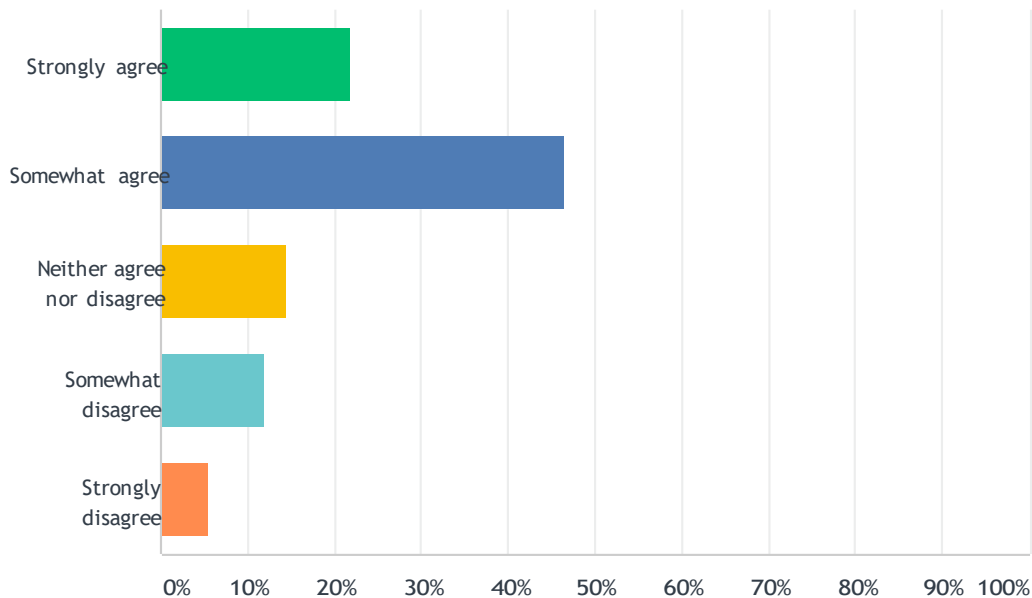
Answered: 541 Skipped: 657



ANSWER CHOICES	RESPONSES	
Strongly agree	35.86%	194
Somewhat agree	29.21%	158
Neither agree nor disagree	25.51%	138
Somewhat disagree	5.91%	32
Strongly disagree	3.51%	19
TOTAL		541

Q9 How much do you agree with the following statement? Railroad crossings in my area are safe.

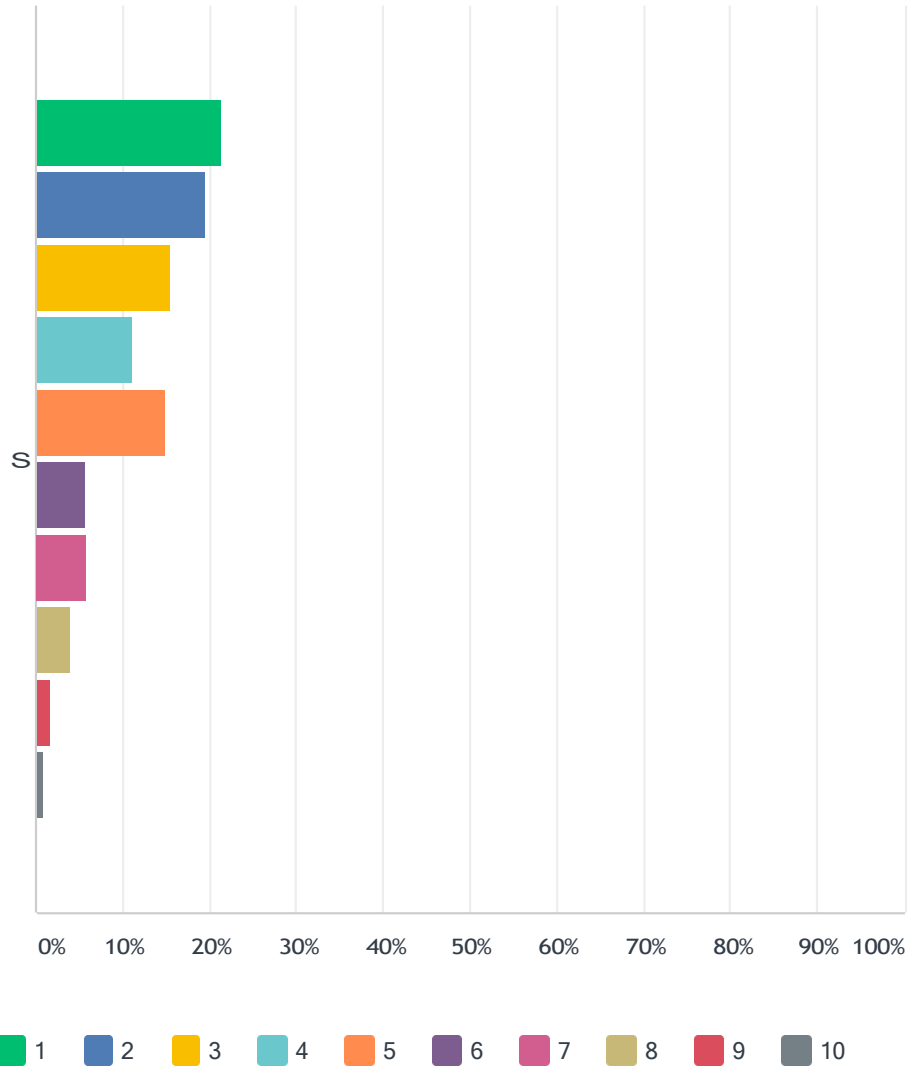
Answered: 541 Skipped: 657



ANSWER CHOICES	RESPONSES	
Strongly agree	21.81%	118
Somewhat agree	46.40%	251
Neither agree nor disagree	14.42%	78
Somewhat disagree	12.01%	65
Strongly disagree	5.36%	29
TOTAL		541

Q10 On a scale of 1 to 10, 10 being the highest, how would you rate current rail services and infrastructure in Indiana?

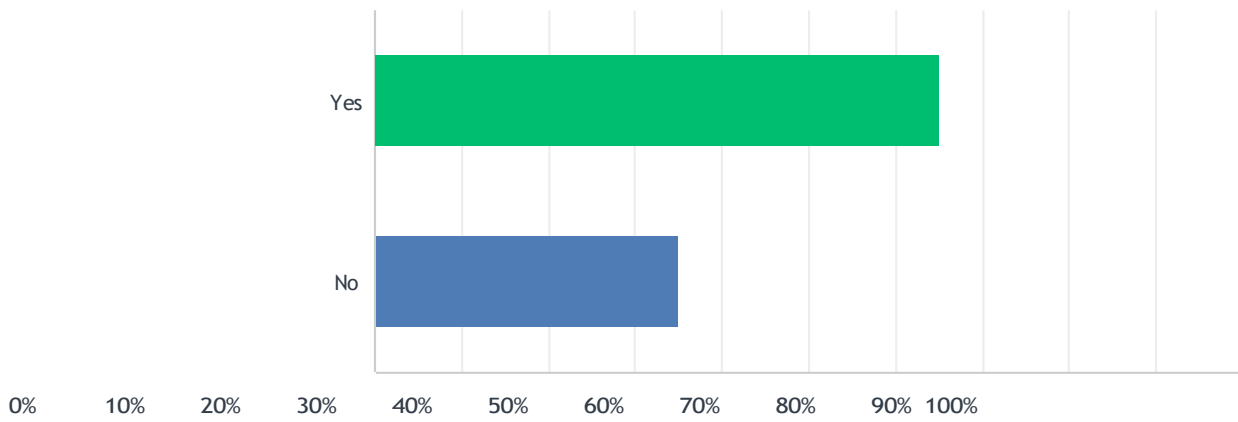
Answered: 541 Skipped: 657



	1	2	3	4	5	6	7	8	9	10	TOTAL	WEIGHTED AVERAGE
S	21.44% 116	19.41% 105	15.53% 84	11.09% 60	14.79% 80	5.55% 30	5.91% 32	3.88% 21	1.66% 9	0.74% 4	541	3.53

Q11 Have you ever used Amtrak service in Indiana?

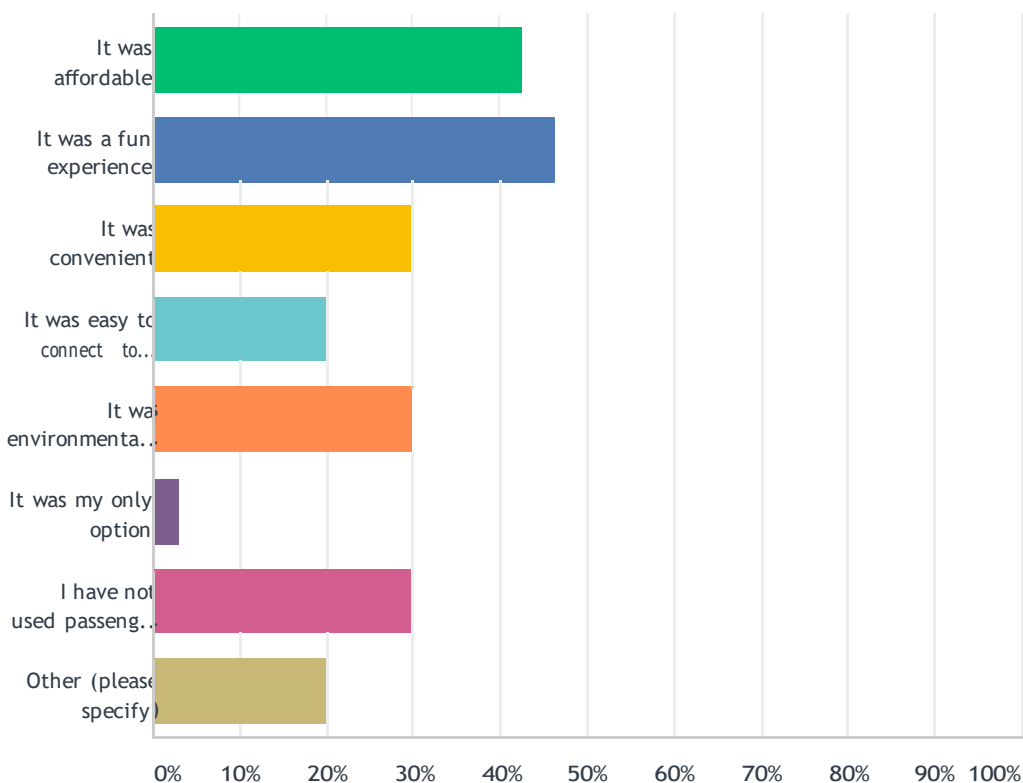
Answered: 568 Skipped: 630



ANSWER CHOICES	RESPONSES	
Yes	64.96%	369
No	35.04%	199
TOTAL		568

Q12 Which of the following reasons describes why you have used Amtrak in Indiana? Please select all that apply.

Answered: 568 Skipped: 630



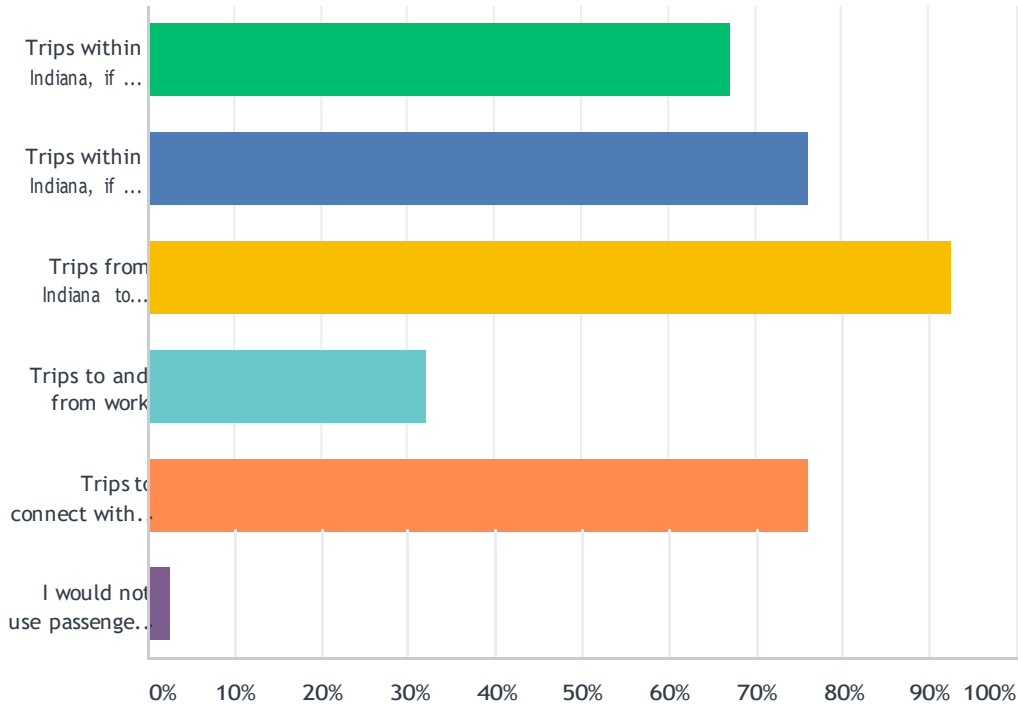
ANSWER CHOICES	RESPONSES	
It was affordable	42.78%	243
It was a fun experience	46.48%	264
It was convenient	29.75%	169
It was easy to connect to other routes	19.54%	111
It was environmentally friendly	30.28%	172
It was my only option	3.17%	18
I have not used passenger rail service in Indiana	29.58%	168

Other (please specify)	19.37%	110
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Total Respondents: 568

**Q13 If passenger rail service was introduced or expanded in the region where you live, what types of trips would you consider taking on the train?
Please select all options that apply.**

Answered: 568 Skipped: 630



ANSWER CHOICES	RESPONSES	
Trips within Indiana, if the service traveled at conventional speeds and stopped at many communities	67.08%	381
Trips within Indiana, if the service traveled at high speeds but made limited stops	76.23%	433
Trips from Indiana to neighboring states such as Illinois, Michigan, or Ohio	92.78%	527
Trips to and from work	32.22%	183
Trips to connect with other travel modes (airports, transit hubs)	76.06%	432
I would not use passenger rail service in Indiana	2.64%	15

Total Respondents: 568

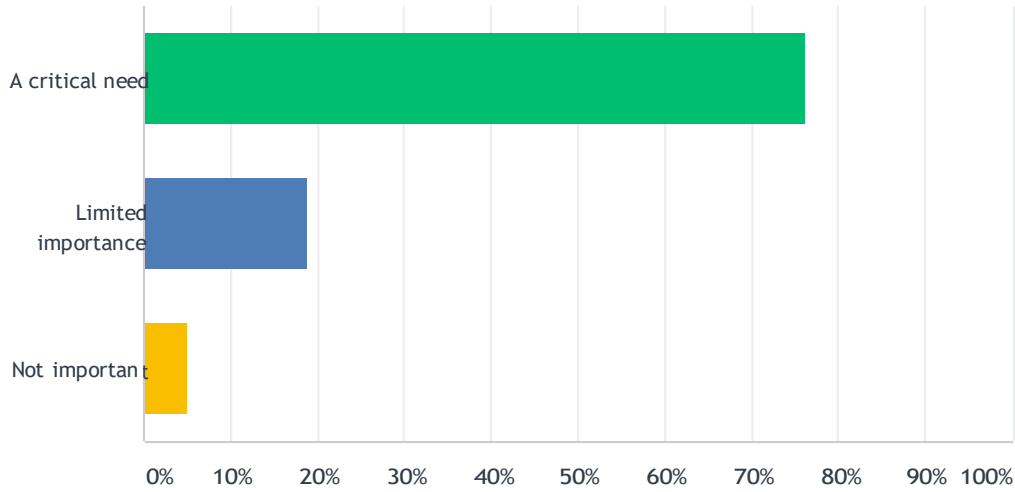
Q14 If you believe that intercity passenger rail service should be expanded to additional communities in Indiana, which communities or corridors should be considered?

Answered: 568 Skipped: 630

(Full responses are in chapter 8 of the INDOT State Rail Plan)

Q15 Commuter rail service refers to passenger trains operating between employment centers and outlying areas. Commuter rail lines typically serve daily riders traveling distances between 10 to 50 miles. How important do you believe expanding commuter rail service is for Indiana?

Answered: 568 Skipped: 630



ANSWER CHOICES	RESPONSES	
A critical need	76.23%	433
Limited importance	18.84%	107
Not important	4.93%	28
TOTAL		568

Q16 If you believe commuter rail expansion service is important to Indiana, what location do you believe could most benefit from this service?

Answered: 568 Skipped: 630

(Full responses are in chapter 8 of the INDOT State Rail Plan)

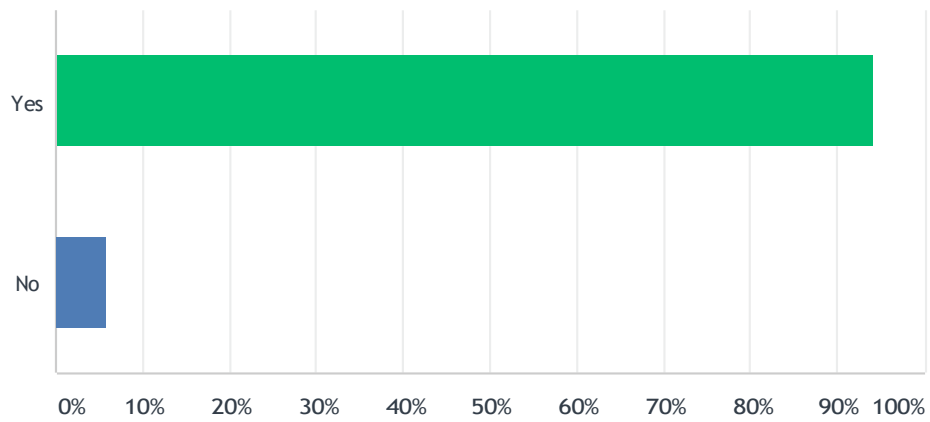
Q17 In what regions or locations should Indiana focus future passenger service improvements?

Answered: 568 Skipped: 630

(Full responses are in chapter 8 of the INDOT State Rail Plan)

Q18 Would you support expanded public programs to support passenger and commuter rail services?

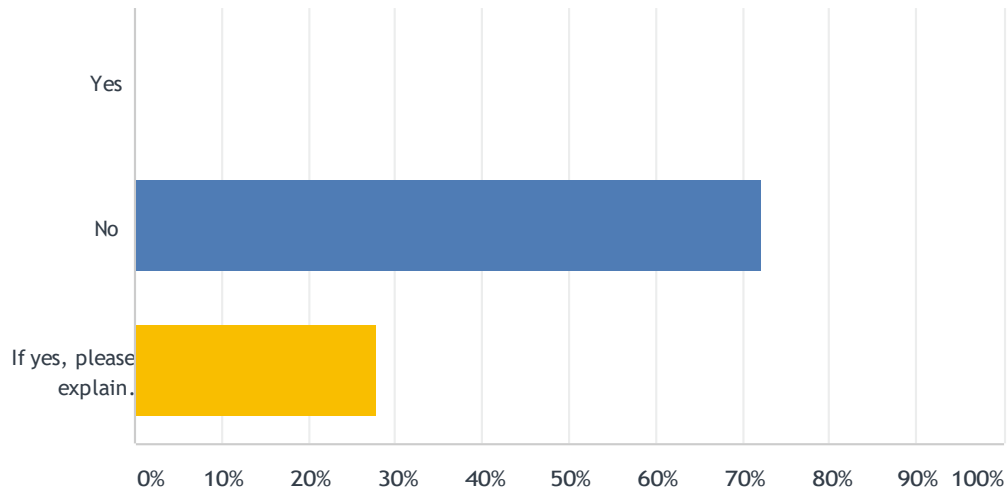
Answered: 568 Skipped: 630



ANSWER CHOICES	RESPONSES	
Yes	94.19%	535
No	5.81%	33
TOTAL		568

Q19 Has COVID-19 impacted your use of rail? If yes, please describe.

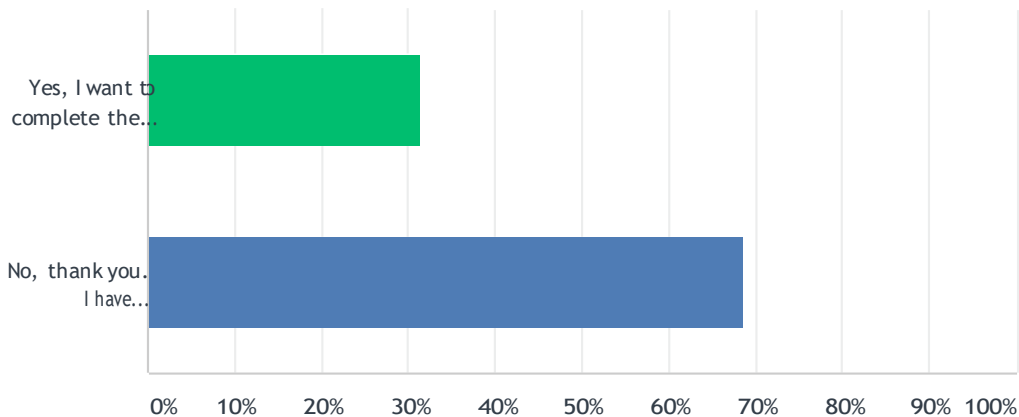
Answered: 568 Skipped: 630



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	72.18%	410
If yes, please explain.	27.82%	158
TOTAL		568

Q20 Would you like to complete another section of the survey?

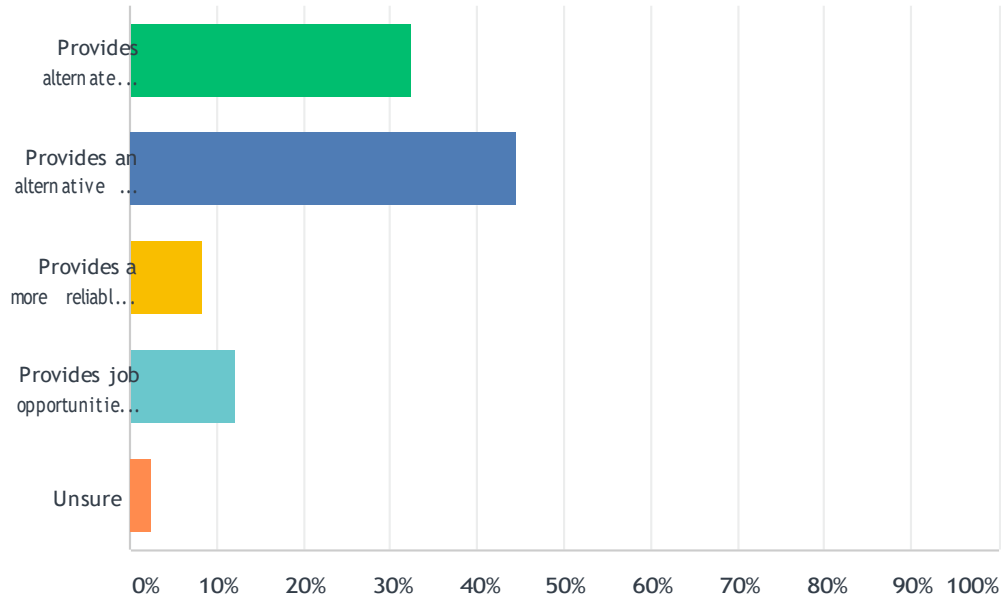
Answered: 568 Skipped: 630



ANSWER CHOICES	RESPONSES	
Yes, I want to complete the freight rail survey now.	31.34%	178
No, thank you. I have completed the survey and want to submit my responses.	68.66%	390
TOTAL		568

Q21 How does the rail network best support economic growth in Indiana? Choose one option.

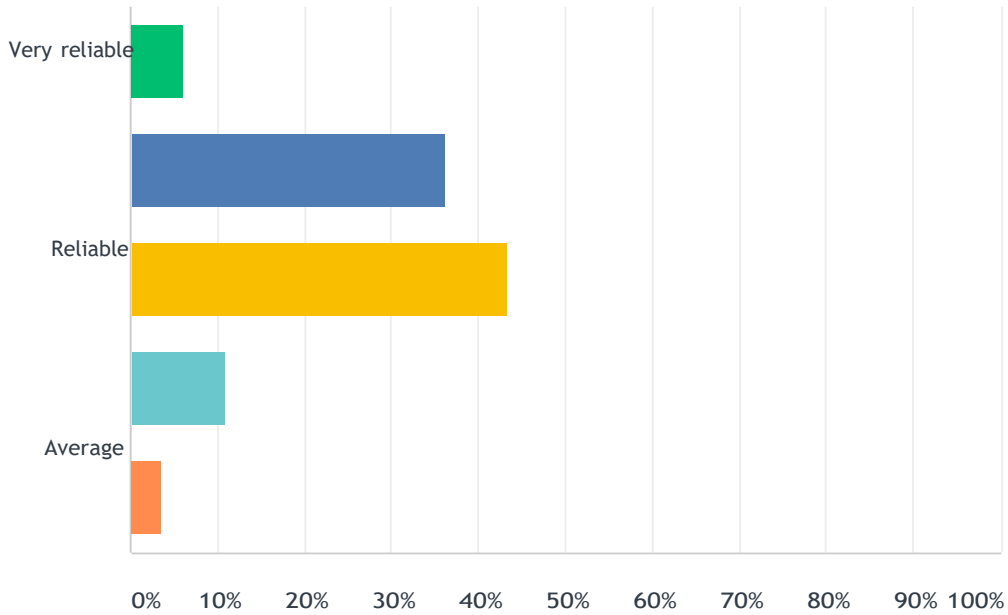
Answered: 83 Skipped: 1,115



ANSWER CHOICES	RESPONSES	
Provides alternate transportation mode for finished goods and raw materials	32.53%	27
Provides an alternative to highway trucks	44.58%	37
Provides a more reliable method to move goods	8.43%	7
Provides job opportunities in communities with freight rail access	12.05%	10
Unsure	2.41%	2
TOTAL		83

Q22 How reliable is the overall rail transportation system in Indiana?

Answered: 83 Skipped: 1,115



ANSWER CHOICES	RESPONSES	
Very reliable	6.02%	5
Reliable	36.14%	30
Average	43.37%	36
Unreliable	10.84%	9
Very unreliable	3.61%	3
TOTAL		83

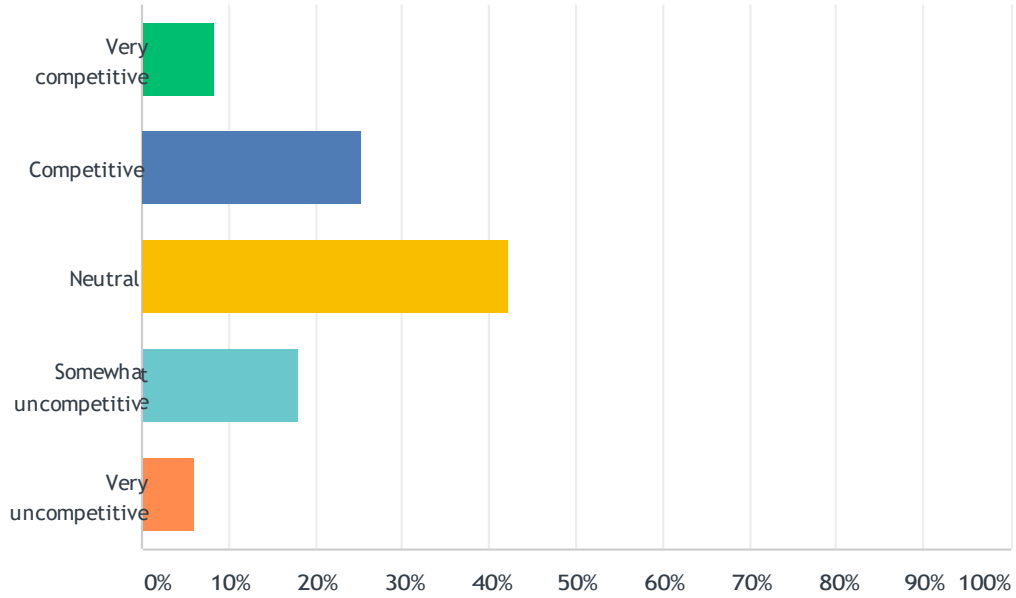
Q23 What improvements would help improve the reliability of the rail transportation network in Indiana? (Please list)

Answered: 83 Skipped: 1,115

(Full responses are in chapter 8 of the INDOT State Rail Plan)

Q24 How competitive is the rail network compared to other modes in Indiana?

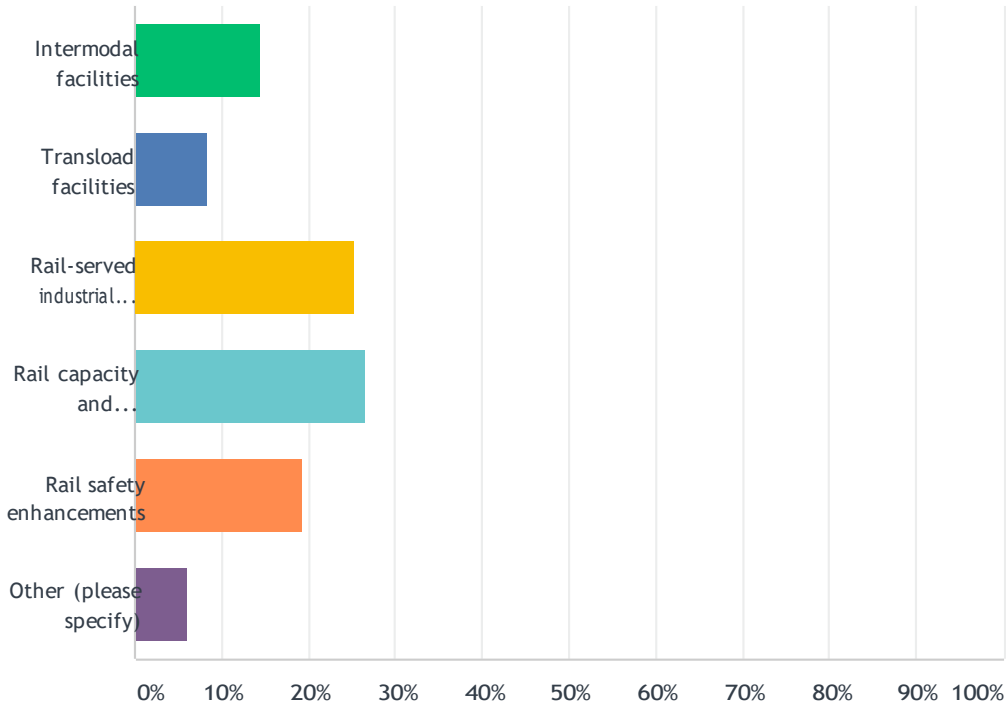
Answered: 83 Skipped: 1,115



ANSWER CHOICES	RESPONSES	
Very competitive	8.43%	7
Competitive	25.30%	21
Neutral	42.17%	35
Somewhat uncompetitive	18.07%	15
Very uncompetitive	6.02%	5
TOTAL		83

Q25 Assuming adequate federal, state, or public private partnership funding is available, what freight and rail projects should the Indiana Department of Transportation prioritize to have the biggest impact on the State's economic competitiveness?

Answered: 83 Skipped: 1,115

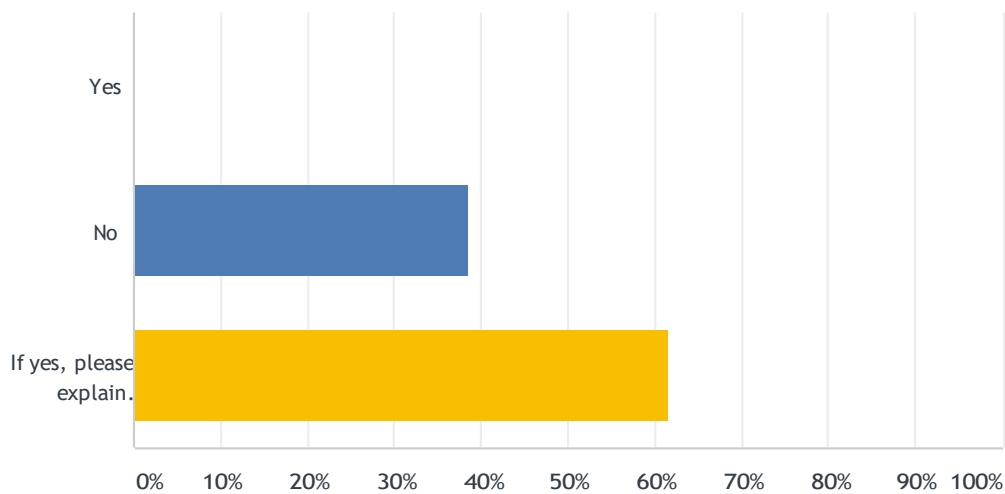


ANSWER CHOICES	RESPONSES	
Intermodal facilities	14.46%	12
Transload facilities	8.43%	7
Rail-served industrial parks and distribution centers	25.30%	21
Rail capacity and infrastructure enhancements	26.51%	22
Rail safety enhancements	19.28%	16
Other (please specify)	6.02%	5

TOTAL	83
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Q26 Are there specific projects that would help improve the competitiveness of the rail network in Indiana?

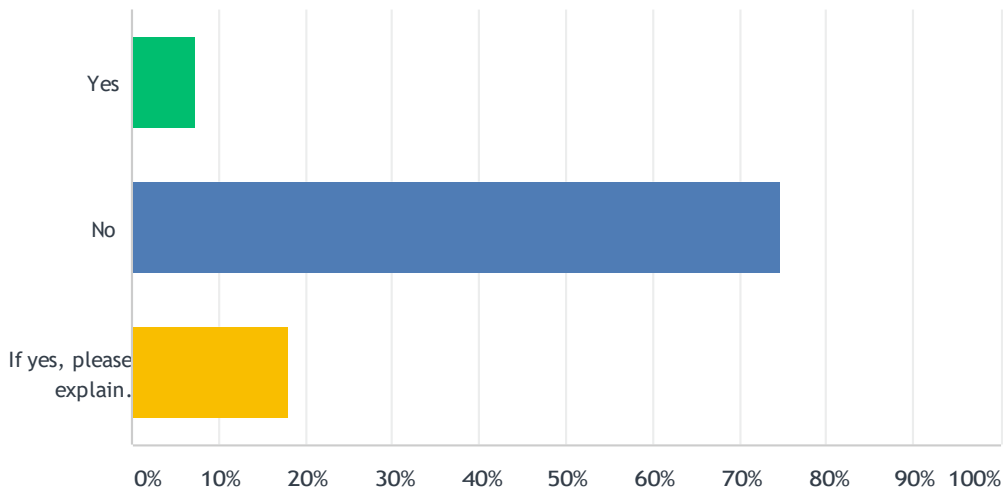
Answered: 83 Skipped: 1,115



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	38.55%	32
If yes, please explain.	61.45%	51
TOTAL		83

Q27 Are there federal and state transportation regulations that are a hindrance or obstacle to economic competitiveness in the state?

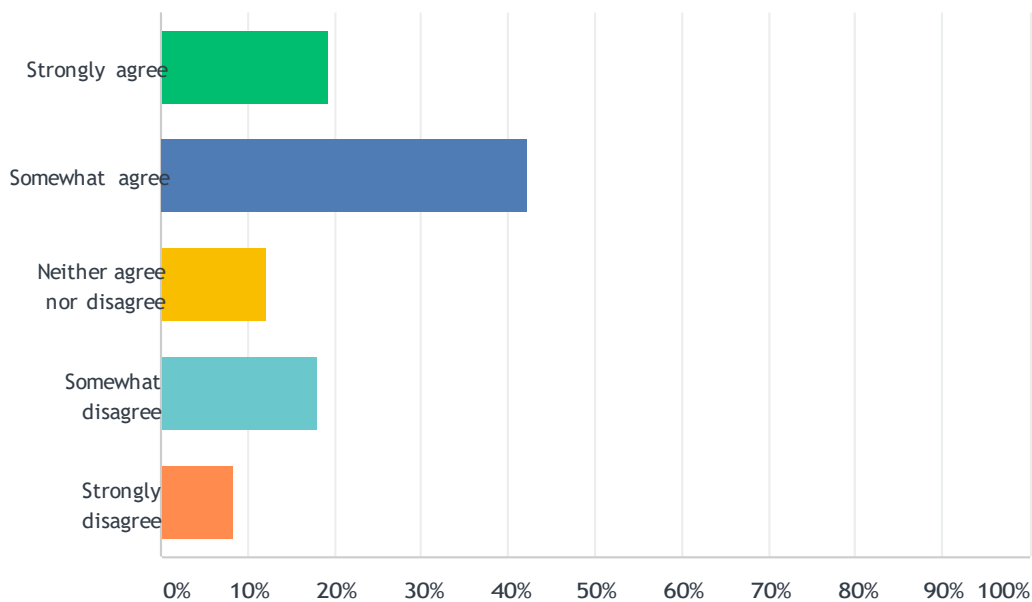
Answered: 83 Skipped: 1,115



ANSWER CHOICES	RESPONSES	
Yes	7.23%	6
No	74.70%	62
If yes, please explain.	18.07%	15
TOTAL		83

Q28 How much do you agree with the following statement? Railroads in my area are safe.

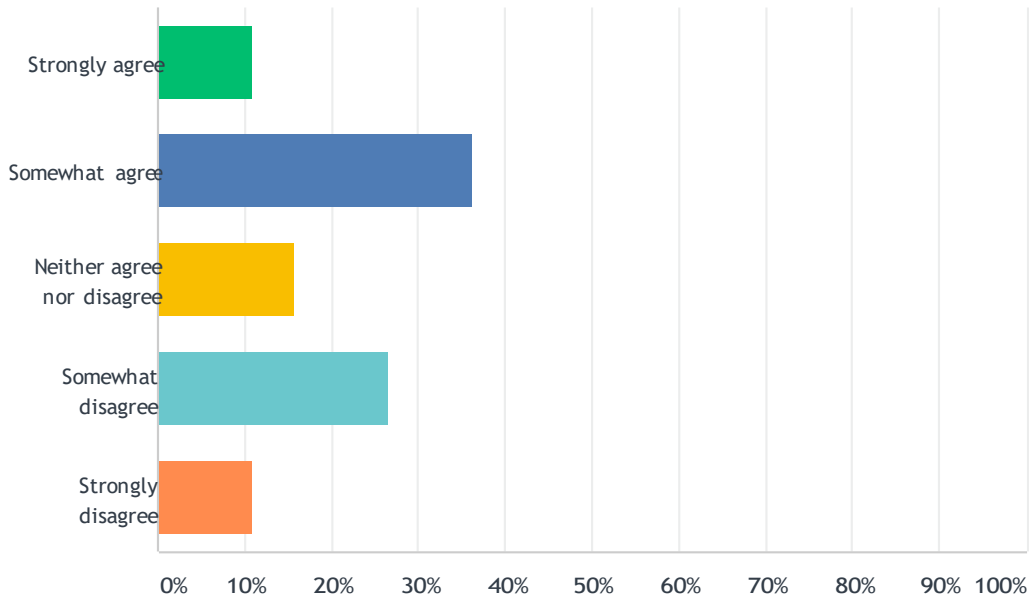
Answered: 83 Skipped: 1,115



ANSWER CHOICES	RESPONSES	
Strongly agree	19.28%	16
Somewhat agree	42.17%	35
Neither agree nor disagree	12.05%	10
Somewhat disagree	18.07%	15
Strongly disagree	8.43%	7
TOTAL		83

Q29 How much do you agree with the following statement? Railroad crossings in my area are safe.

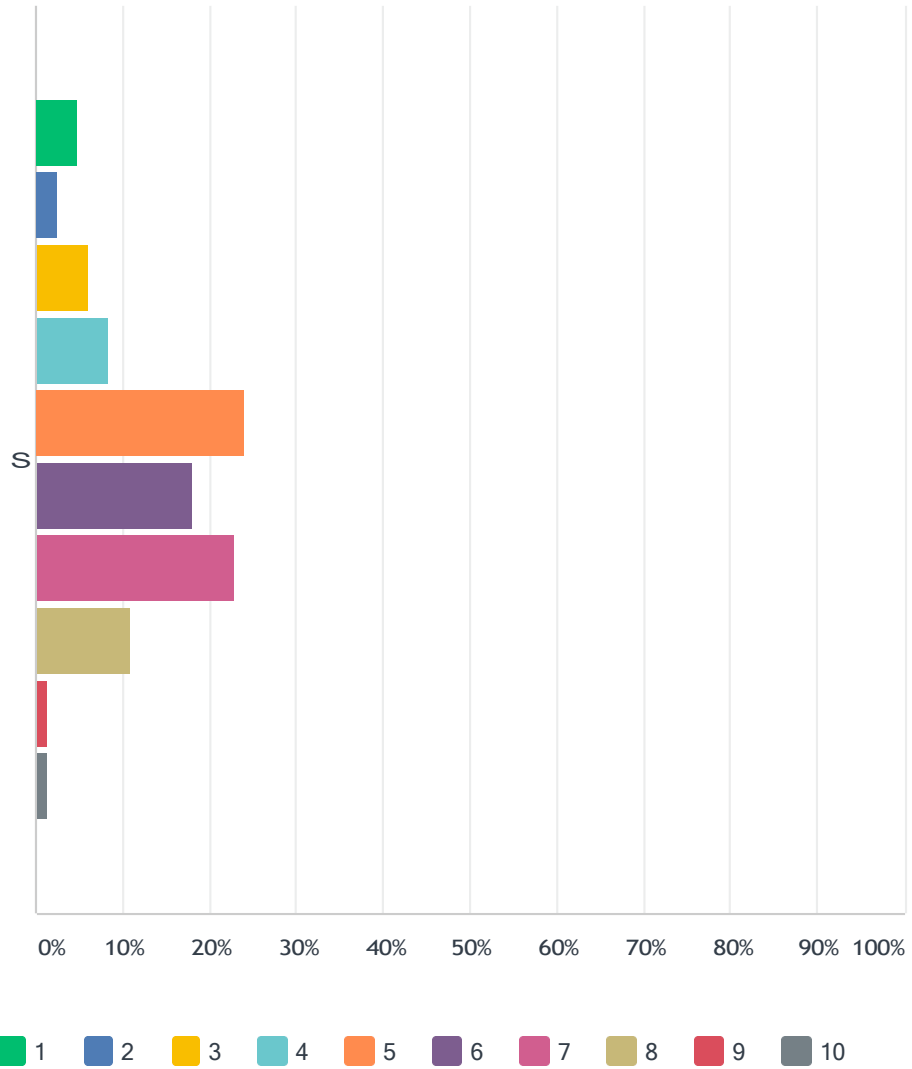
Answered: 83 Skipped: 1,115



ANSWER CHOICES	RESPONSES	
Strongly agree	10.84%	9
Somewhat agree	36.14%	30
Neither agree nor disagree	15.66%	13
Somewhat disagree	26.51%	22
Strongly disagree	10.84%	9
TOTAL		83

Q30 On a scale of 1 to 10, 10 being the highest, how would you rate current rail services and infrastructure in Indiana?

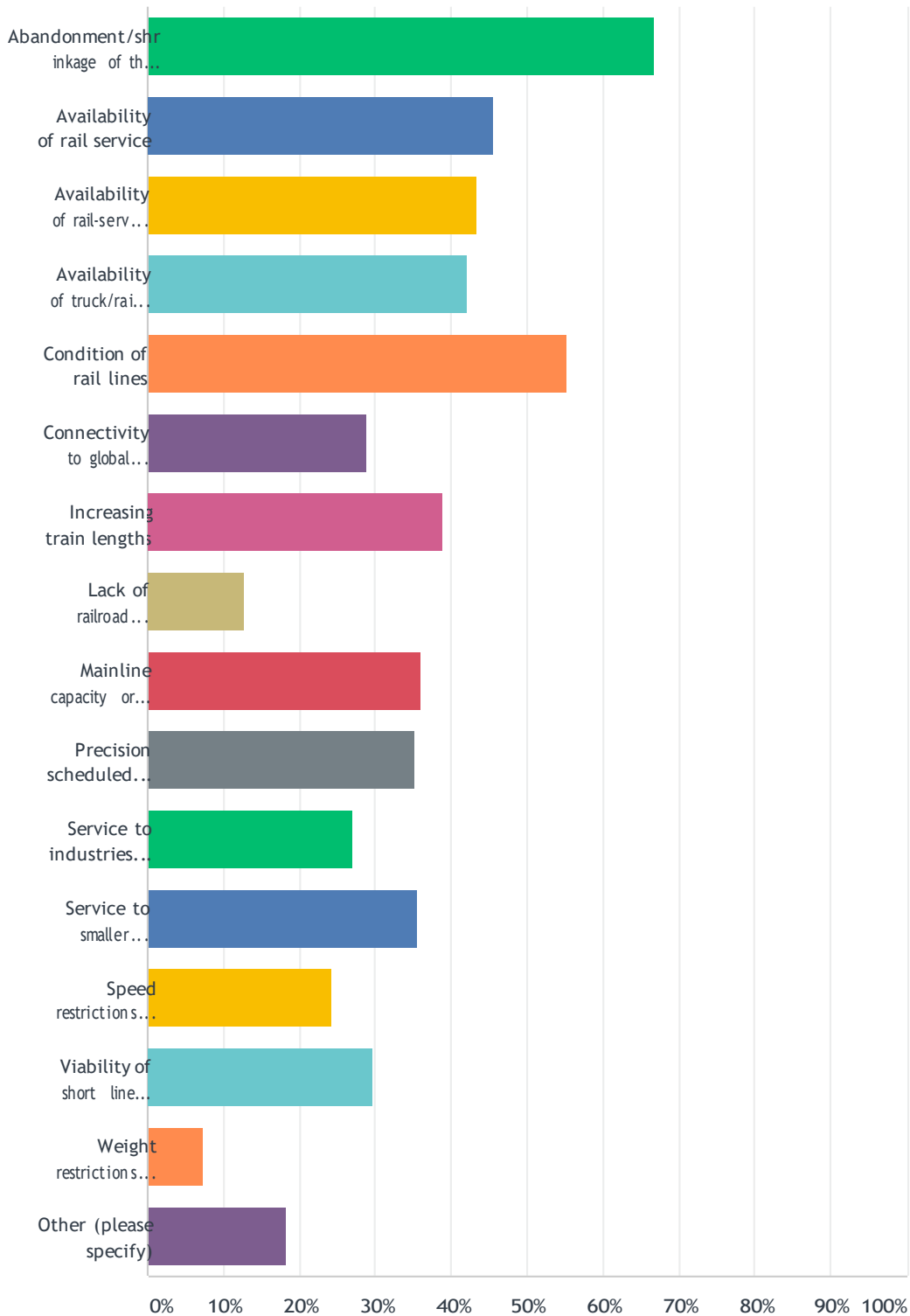
Answered: 83 Skipped: 1,115



	1	2	3	4	5	6	7	8	9	10	TOTAL	WEIGHTED AVERAGE
S	4.82%	2.41%	6.02%	8.43%	24.10%	18.07%	22.89%	10.84%	1.20%	1.20%	83	5.60
	4	2	5	7	20	15	19	9	1	1		

Q31 Please select your top five concerns related to freight rail transportation in the state:

Answered: 219 Skipped: 979



Indiana Department of Transportation State Rail Plan Survey

ANSWER CHOICES	RESPONSES	
Abandonment/shrinkage of the rail network	66.67%	146
Availability of rail service	45.66%	100
Availability of rail-served industrial locations for new businesses	43.38%	95
Availability of truck/rail freight transfer facilities	42.01%	92
Condition of rail lines	55.25%	121
Connectivity to global markets	28.77%	63
Increasing train lengths	38.81%	85
Lack of railroad alternatives	12.79%	28
Mainline capacity or rail bottlenecks	36.07%	79
Precision scheduled railroading practices	35.16%	77
Service to industries located on short line railroads	26.94%	59
Service to smaller shippers	35.62%	78
Speed restrictions on rail lines	24.20%	53
Viability of short line railroads	29.68%	65
Weight restrictions on rail lines	7.31%	16
Other (please specify)	18.26%	40
Total Respondents: 219		

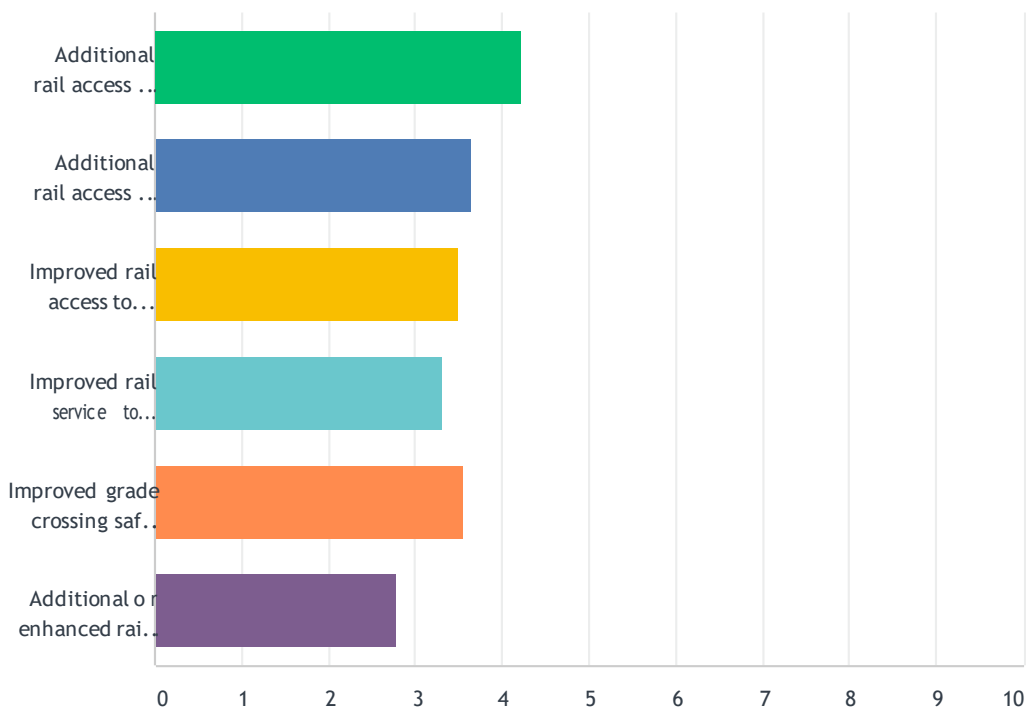
Q32 Referring to your responses in the previous question, identify specific concerns, including locations if applicable.

Answered: 219 Skipped: 979

(Full responses are in chapter 8 of the INDOT State Rail Plan)

Q33 Please rank the following in terms of benefit to Indiana with "1" being most important and "6" being least important.

Answered: 219 Skipped: 979



	1	2	3	4	5	6	TOTAL	SCORE
Additional rail access to industrial parks/agricultural facilities/manufacturing plants	29.22% 64	20.55% 45	18.26% 40	14.61% 32	10.50% 23	6.85% 15	219	4.23
Additional rail access to truck/rail transload facilities or ports	7.31% 16	27.85% 61	21.92% 48	16.89% 37	15.53% 34	10.50% 23	219	3.63
Improved rail access to existing rail-served industrial parks/transload facilities/manufacturing plants/agricultural facilities.	8.22% 18	19.18% 42	22.83% 50	22.83% 50	17.81% 39	9.13% 20	219	3.50
Improved rail service to existing rail-served agricultural facilities/industrial parks/manufacturing plants/ports/transload facilities.	10.50% 23	14.16% 31	17.35% 38	23.29% 51	22.83% 50	11.87% 26	219	3.31
Improved grade crossing safety or elimination	33.33% 73	5.48% 12	9.59% 21	11.87% 26	13.70% 30	26.03% 57	219	3.55
Additional or enhanced rail intermodal services and facilities	11.42% 25	12.79% 28	10.05% 22	10.50% 23	19.63% 43	35.62% 78	219	2.79

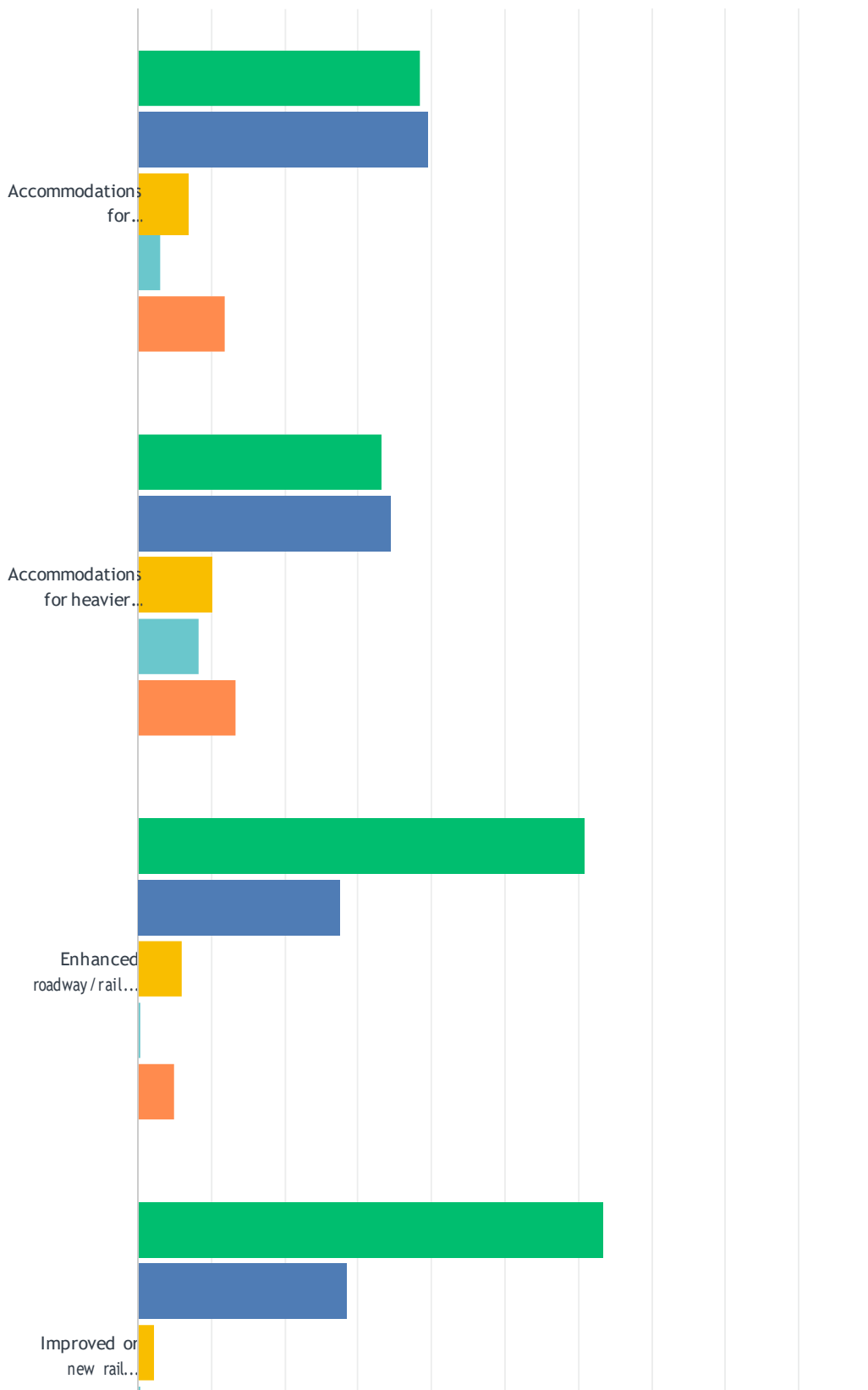
Q34 For the item you ranked first in the previous question, please provide the location and details.

Answered: 219 Skipped: 979

(Full responses are in chapter 8 of the INDOT State Rail Plan)

Q35 How strongly do you agree or disagree that the following would benefit Indiana?

Answered: 219 Skipped: 979



Indiana Department of Transportation State Rail Plan Survey

	STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE	NO OPINION	TOTAL
Accommodations for double-stack trains	38.53% 84	39.45% 86	6.88% 15	3.21% 7	11.93% 26	218
Accommodations for heavier rail cars	33.18% 72	34.56% 75	10.60% 23	8.29% 18	13.36% 29	217
Enhanced roadway/rail grade crossings	60.83% 132	27.65% 60	5.99% 13	0.46% 1	5.07% 11	217
Improved or new rail connections to industrial or commercial sites	63.30% 138	28.44% 62	2.29% 5	0.46% 1	5.50% 12	218
Preserving rail lines for future service or development	66.97% 146	23.39% 51	3.67% 8	1.38% 3	4.59% 10	218
Short line railroad infrastructure improvements	59.63% 130	27.52% 60	3.21% 7	1.83% 4	7.80% 17	218

Q36 What incentives would increase your likelihood of using freight rail more often?

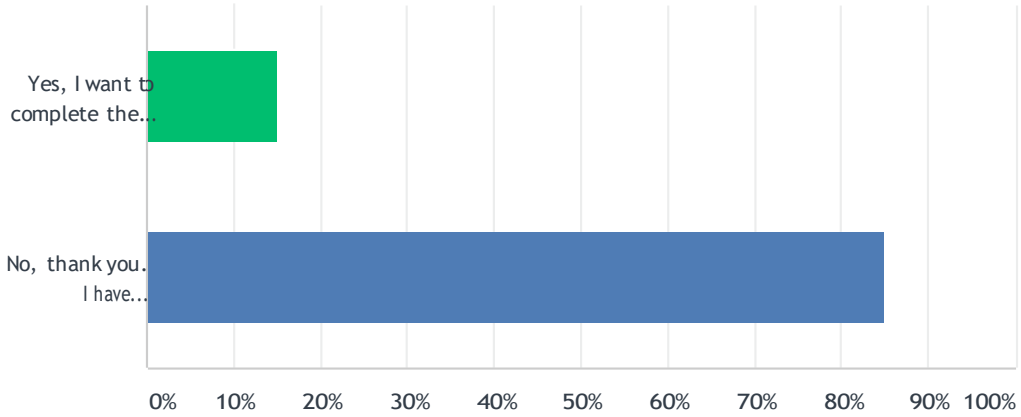
Answered: 219 Skipped: 979

Q37 Has your railroad experienced COVID-19 impacts? (economical, workforce). If so, please list.

Answered: 219 Skipped: 979

Q38 Would you like to complete another section of this survey? (Please choose one).

Answered: 219 Skipped: 979



ANSWER CHOICES	RESPONSES	
Yes, I want to complete the passenger rail survey now.	15.07%	33
No, thank you. I have completed the survey and want to submit my responses.	84.93%	186
TOTAL		219

Q39 Where do you live? Please enter your city below.

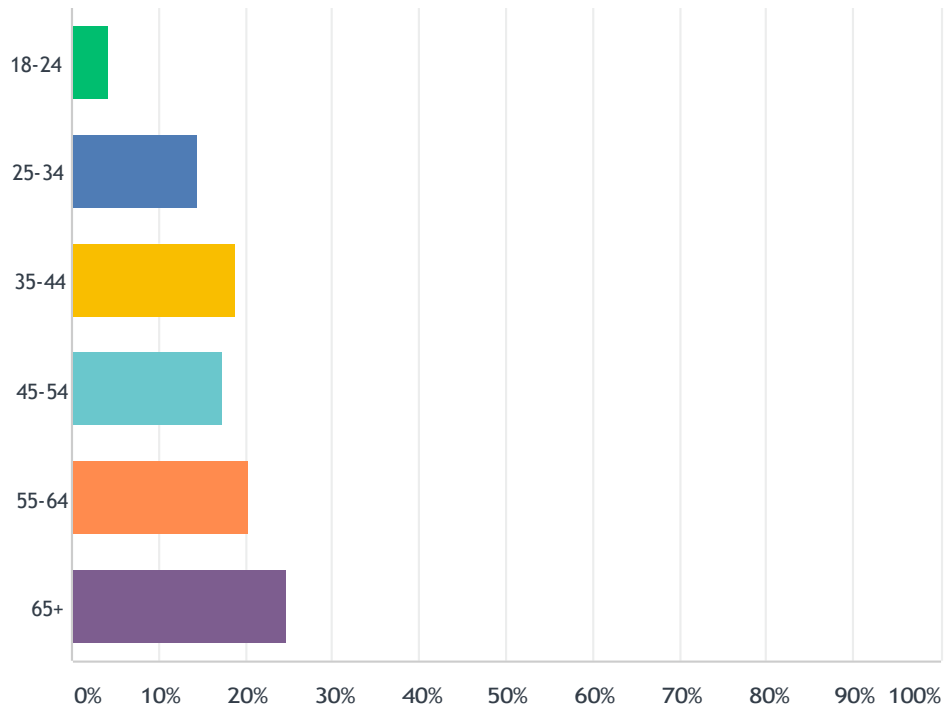
Answered: 569 Skipped: 629

Q39 Where do you live? Please enter your city below.

Answered: 569 Skipped: 629

Q40 Which category below includes your age?

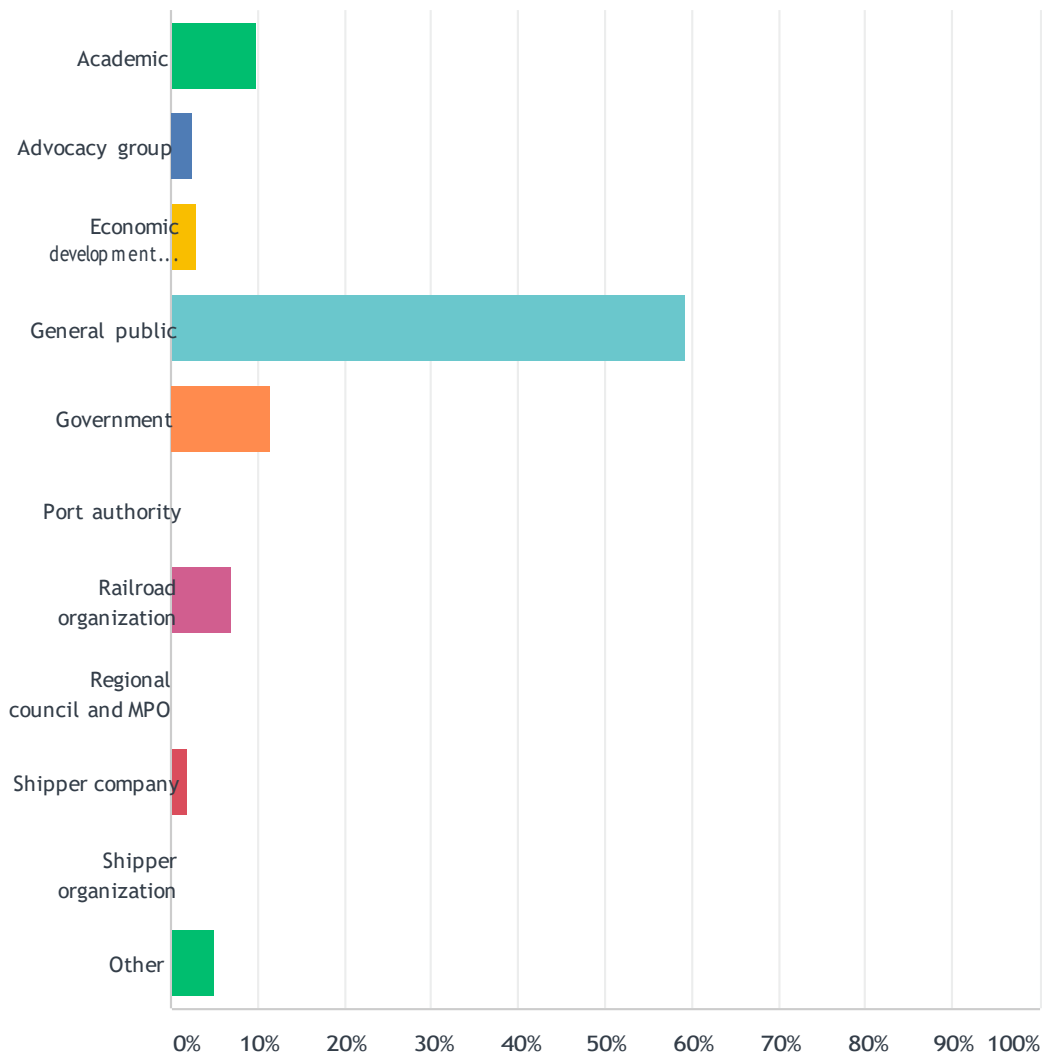
Answered: 569 Skipped: 629



ANSWER CHOICES	RESPONSES
18-24	4.22% 24
25-34	14.41% 82
35-44	18.80% 107
45-54	17.40% 99
55-64	20.39% 116
65+	24.78% 141
TOTAL	569

Q41 Which option below best describes your background?

Answered: 569 Skipped: 629



ANSWER CHOICES	RESPONSES	
Academic	9.84%	56
Advocacy group	2.46%	14
Economic development group	2.99%	17
General public	59.23%	337
Government	11.42%	65
Port authority	0.18%	1
Railroad organization	6.85%	39
Regional council and MPO	0.00%	0
Shipper company	1.93%	11
Shipper organization	0.18%	1
Other	4.92%	28
TOTAL		569

