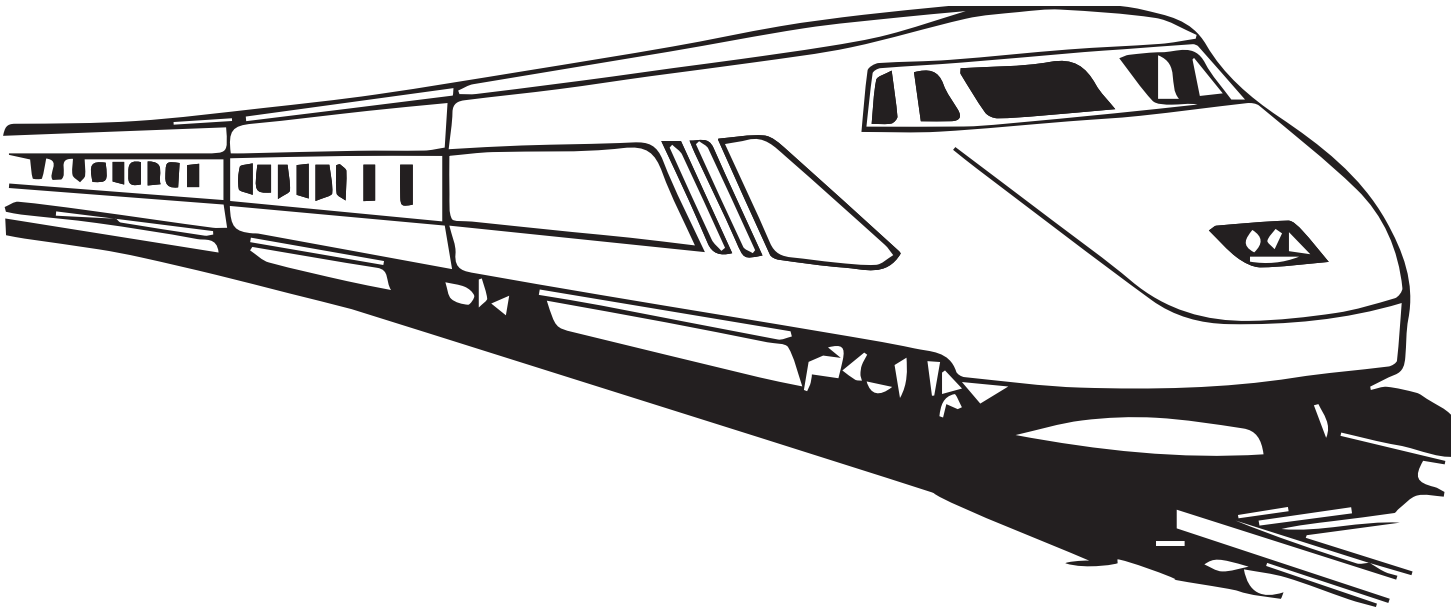
2017
Illinois State Rail Plan Update



Illinois Department of Transportation

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2017 Illinois State Rail Plan Update Executive Summary

Illinois' multimodal transportation system is complex. It spans numerous modes, geographies and jurisdictions and serves a wide variety of passengers, commodities and supply chains. The 2017 Illinois State Rail Plan Update (the "Plan") presents existing and future passenger and freight rail services and conditions in Illinois. The Plan formulates a state of Illinois vision describing the role of passenger and freight rail services in Illinois and illustrates what these services will look like in the future. It describes Illinois' passenger and freight rail programs and outlines the Illinois Department of Transportation's (IDOT) long-range policies, goals, strategies and investments needed to meet that future vision. The Plan provides detailed rail information that expands on the information provided in the state's FY 2018-2023 Proposed Multi-Modal Improvement Program.

1 Rail Plan Purpose, Scope and Overview

The Plan was developed by IDOT with input and cooperation from a variety of Illinois rail stakeholders and government agencies. Proactive and early public involvement throughout the development of the Plan ensured that all rail stakeholders had the opportunity to participate in the planning process.

The purposes of the Plan are to:

- Improve rail safety
- Improve mobility for passengers and freight on Illinois' rail system
- Increase the effectiveness of the rail program
- Broaden understanding of rail issues
- Provide a framework to implement rail initiatives in Illinois
- Support IDOT in seeking federal and state funding
- Provide a gauge to measure rail benefits (performance metrics)
- Fulfill 2008 Federal Railroad Administration (FRA) Passenger Rail Investment and Improvement Act (PRIIA) requirements for state rail plans

The information covered by the Plan includes the entire state of Illinois. Rail services addressed include rail freight carrier services, Amtrak services, intercity high-speed rail services and urban rail commuter services. The Plan identifies anticipated trends, needs and issues that will affect rail service and demand over the next two or three decades. The Plan also provides a short-range and long-range investment program framework for meeting the various needs of passenger and freight rail services within the state. The Plan includes six chapters and appendices to these chapters.

- Chapter 1 – Provides a brief introduction and overview of the role of rail in statewide transportation.

- Chapter 2 – Provides an overview and inventory of the state's existing rail system, describes the trends that will impact the need for rail in the state, and identifies the needs and opportunities for passenger and freight rail service in the state.

- **Chapter 3** – Describes the improvements and investments that could address the passenger rail needs of the state.

- **Chapter 4** – Describes the improvements and investments that could address the freight rail needs of the state.

- **Chapter 5** – Describes the state's long-term vision for rail service and its role in the statewide multimodal transportation system.

- **Chapter 6** – Describes how stakeholders were involved in the development and coordination of the 2017 State Rail Plan Update and the Long-Range Transportation Plan.

2 The Role of Rail in Statewide Transportation

The Illinois Department of Transportation's (IDOT) mission is to provide safe, cost-effective transportation for Illinois in ways that enhance the quality of life, promote economic prosperity and demonstrate respect for the environment. IDOT is responsible for sustaining, strengthening, expanding and maintaining the state's transportation system. This is accomplished by partnering with state, federal and local entities to ensure the transportation network fosters and supports economic growth at the community, regional, state and national levels.

Rail Vision and Goals

As part of the development of the Plan, IDOT reaffirmed its transportation vision and adopted visions for passenger and freight rail service. The rail vision was further defined through nine goals and specific objectives describing the role of passenger and freight rail in Illinois and illustrating what these services will look like in the future. Passenger and freight rail visions are described in **Chapter 1**.

In order to maintain a safe, reliable and economically efficient passenger and freight rail infrastructure, goals and objectives must be identified and strategies established to achieve these goals and objectives. Illinois' proposed goals and objectives are:

Provide an intercity passenger rail system that improves the quality of life for Illinois' residents and visitors

- Continuously seek to improve reliability
- Increase efficiency and convenience of service
- Increase accessibility to low-income, elderly and special needs groups that have limited access to other modes of transportation

Promote, educate and expand intermodal and multimodal connectivity

- Increase coordination between freight intercity passenger and commuter rail networks and other modes of transportation
- Improve access to commuter and intercity passenger service via other modes
- Improve efficiency of transfers of passengers between modes

Enhance economic development and promote economic competitiveness

- Increase accessibility to and mobility of passenger rail service in order to increase the potential for trade and economic development and employment opportunities; attract and retain new business
- Support transit-oriented development in and near intercity passenger and commuter rail stations
- Invest in long-term "mega projects" such as the Midwest Regional Rail Initiative (MWRRI); a plan to build a high-speed rail hub in Chicago; completion of the CREATE program
- Maximize sustainability

Provide a rail system that is safe, energy efficient and environmentally sustainable

- Promote rail and highway safety by identifying and improving hazardous highway grade crossings
- Promote safety efforts throughout the system to prevent pedestrian fatalities
- Improve capacity and promote congestion relief on the state's rail lines and on the highway network
- Work with adjacent states to achieve a regional transportation solution
- Realize positive air quality gains and reduced energy consumption with efficient passenger and freight operations
- Promote efforts to provide security of passenger and freight railroad operations; reduce number of trespassers
- Implement positive train control (PTC)

Develop sustainable funding

- Identify needed capacity enhancements or capital improvements
- Maintain a rail funding structure that provides adequate resources for rail needs incorporating federal, state, local and private revenue sources
- Support public-private partnerships and private sector initiatives
- Support joint use of transportation facilities for compatible activities
- Explore innovative financing methods
- Advocate for the creation of dedicated federal and state programs for rail infrastructure investment

Improve Efficiency

- Complete the CREATE program of projects

Grow the economy

- Restore financial soundness of the Rail Freight Loan Program
- Establish a new sustainable Rail Freight Assistance Program
- Establish a new sustainable Rail Freight Emergency Bridge Replacement Program for Class II and Class III Railroads

Preserve Existing Infrastructure

- Ensure preservation of abandoned rail corridors

Safety

- Complete the remaining Grade Separation CREATE Projects

The Rail Plan study area is the entire state of Illinois. Rail services addressed include rail freight carrier services, Amtrak services, intercity high-speed rail services and urban rail commuter services. The state's overall rail transportation system was inventoried during the development of the Plan, and individual profiles presented on all major rail service providers. The Plan identifies anticipated trends, needs and issues that will affect rail service and demand over the next two or three decades. The Plan provides a long-range investment program framework for meeting the various needs of rail passenger and freight services within the state.

3 IDOT Authority to Conduct Rail Planning and Investment

IDOT's authority to qualify for and disburse federal rail funding, and to establish a state program from which it can make rail loans and grants to qualified entities within the state comes from the Civil Administrative Code of Illinois, Department of Transportation Law. Section 20 ILCS 2705/2705-400 authorized IDOT to exercise those powers necessary for the state to qualify for rail service continuation subsides pursuant to the provisions of the federal Regional Rail Reorganization Act of 1973, the Railroad Revitalization and Regulatory Reform Act of 1976, or other relevant federal or state legislation. Oversight of rail operations within IDOT is located in the Department's Office of Intermodal Project Implementation (OIPI) and its Division of Highways (DOH).

Although IDOT has the primary responsibility for rail planning, policy and project development, a number of additional state and local agencies in Illinois also play important roles in the safety, viability and efficiency of the state's rail system. Illinois' Commercial Transportation Law establishes safety requirements for rail carriers' track, facilities and equipment within Illinois and gives the Illinois Commerce Commission (ICC) jurisdiction to administer and enforce Federal Railroad Administration (FRA) rules and Illinois administrative codes in a cooperative manner with FRA. Long-range planning for intercity passenger rail and commuter rail services in Illinois is typically provided by Amtrak, Metra the Northern Indiana Commuter Transportation District (NICTD) and the Regional Transportation Authority (RTA) as the providers of passenger rail service. These groups often coordinate on projects with one another and with IDOT to produce cohesive planning documents for the state.

Also operating in Illinois is the Chicago Region Environmental and Transportation Efficiency (CREATE) Program. CREATE is a first-of-its-kind partnership between the U.S. DOT, the state of Illinois, the city of Chicago, Metra, Amtrak and the nation's freight railroads. A project of national significance, CREATE will invest billions in critically needed improvements to increase the efficiency of the region's passenger and freight rail infrastructure and enhance the quality of life for Chicago-area residents.

4 Recent Investments/Initiatives to the Illinois Rail System

In an effort to improve existing services, capital assistance programs were created to establish a partnership between states and the federal government to support intercity passenger rail. The High-

Speed Intercity Passenger Rail Program was established in 2009, placing an emphasis on building high-speed and intercity passenger rail to connect to communities across the country.

IDOT and other state partners applied for federal grant funds under the Passenger Rail Investment and Improvement Act of 2008 (PRIIA), which authorized capital assistance funding to states for intercity passenger rail service and American Recovery and Reinvestment Act (ARRA) programs. Recent rail investments and initiatives discussed in **Chapter 1** include:

- Chicago – St. Louis High Speed Rail Corridor
- Chicago – Milwaukee Corridor
- Chicago – Detroit/Pontiac Corridor
- Metra Infrastructure Investment Program

5 Summary of Freight and Passenger Rail Services in Illinois

The rail system in Illinois is privately owned and maintained, stimulating local, state, regional and national economic activity by providing safe, efficient, low-cost and environmentally friendly transportation services. Illinois is the center of the nation's rail network, and Chicago represents the largest U.S. rail hub in North America. Another major rail center for Illinois and the Midwest is located in East St. Louis.

Passenger rail in Illinois is comprised of intercity, commuter rail, and light and heavy rail transit. Intercity passenger rail service is provided by Amtrak as part of its national network. Currently, Amtrak serves Illinois with 56 daily trains, eight long-distance trains and eight state-supported corridor services. IDOT currently fully supports Amtrak service along three corridors: Chicago – Quincy, St. Louis and Carbondale (**Figure 1**). Additionally, IDOT and the Wisconsin Department of Transportation (WiSDOT) jointly support service between Chicago and Milwaukee, Wisc. These four routes provide passenger rail service to 34 communities in Illinois, Wisconsin and Missouri on 30 trains per day, making Illinois a national leader in providing passenger rail service for the traveling public in the state. Freight and passenger rail services are described in **Chapter 2.**

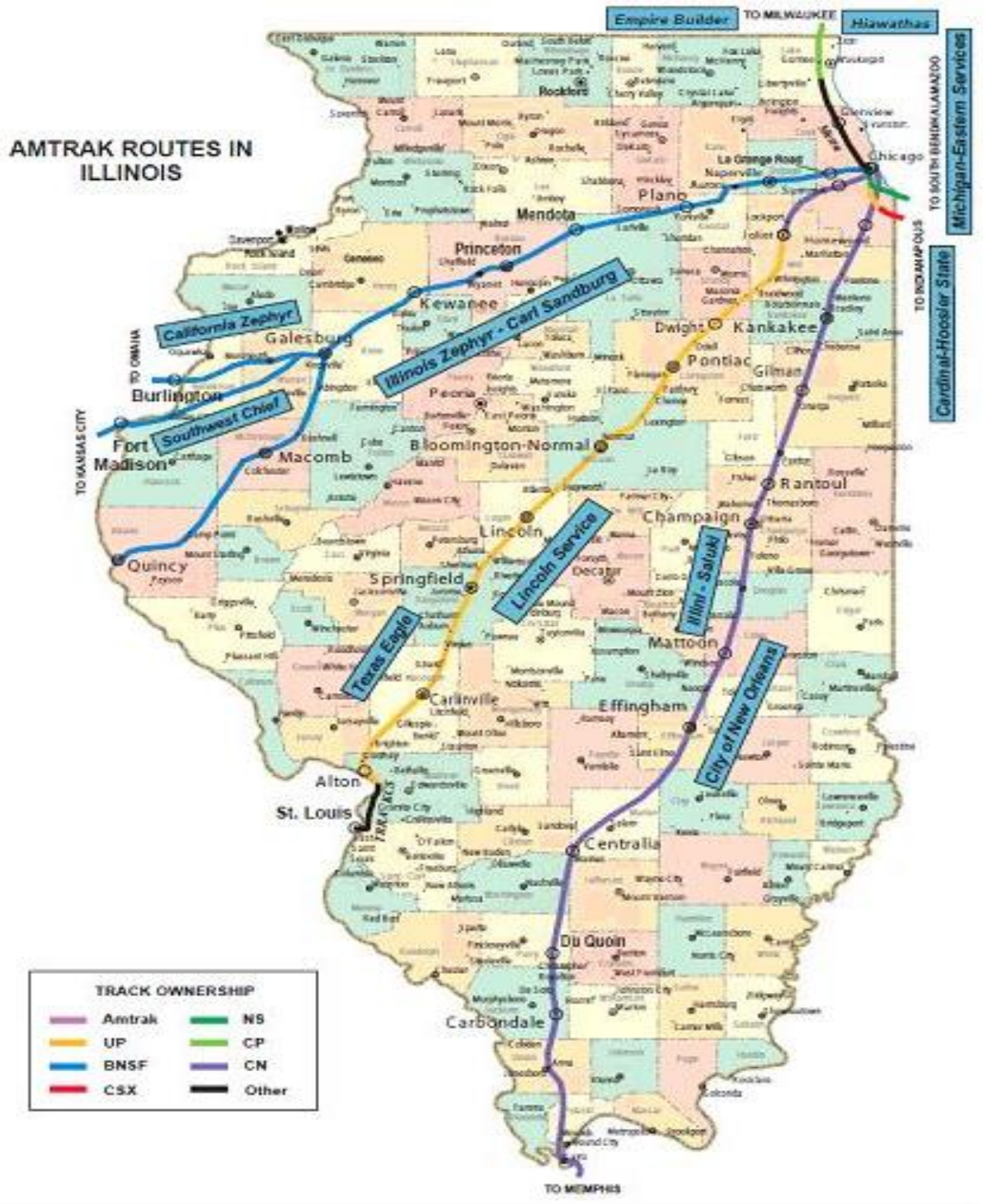

Figure 1 Amtrak Routes in Illinois

6 Existing Commuter, Passenger and Freight Rail Conditions in Illinois

A total of 46 freight railroads currently operate in Illinois. The system is comprised of seven Class I railroads, three regional railroads, 13 short line railroads and 23 terminal carriers. Passenger rail systems and services are described in **Chapter 2.**

Railroads by Class

- Class I Railroads are defined by the Federal Surface Transportation Board (STB) as having more than $457.9 million of annual carrier operating revenue. They primarily operate long-haul service over high-density intercity traffic lanes.
- Class II and Regional Railroads are railroads of similar size with slightly different definitions. Class II railroads are defined by the STB as having annual revenue between $36.6 million and $475.7 million. Regional railroads are defined by the Association of American Railroads (AAR) as operating over at least 350 miles of track and/or having revenue of at least $40 million.
- Class III, or Short Line Railroads, have annual revenue of less than 36.6 million per year. Terminal or Switching Railroads are a subcategory of Class III Railroads that provide pick-up and delivery service within a specified area.

According to the Association of American Railroads (AAR), Illinois' comprehensive rail network consists of approximately 9,369 miles of railroad tracks – 7,877 of which are owned by Class I railroads, primarily the Union Pacific (UP) Railroad and the Burlington Northern Santa Fe (BNSF) Railway. The remaining miles of track are operated by Class II or regional railroads, Class III short line terminal or switching railroads, and selected passenger or privately owned freight rail operations. They range in size from a short one-mile interstate carrier to larger railroads extending from Illinois to the West and East Coasts, Gulf of Mexico, Canada and Mexico.

Illinois' expansive freight rail network, its 16,000-mile highway system and 300 port terminals, together with over 200 intermodal freight transfer facilities between these modes, provide the state's businesses and industries with cost- and transportation-efficient means to utilize the most effective and competitive combination of modes to meet their needs. Likewise, the state's rail passenger network serves over 4.6 million annual Amtrak riders at Illinois stations and its 35-passenger intermodal facilities provide for efficient transfer between intercity rail, bus and airport facilities. **Figure 2** is a map of the Illinois railroad network.

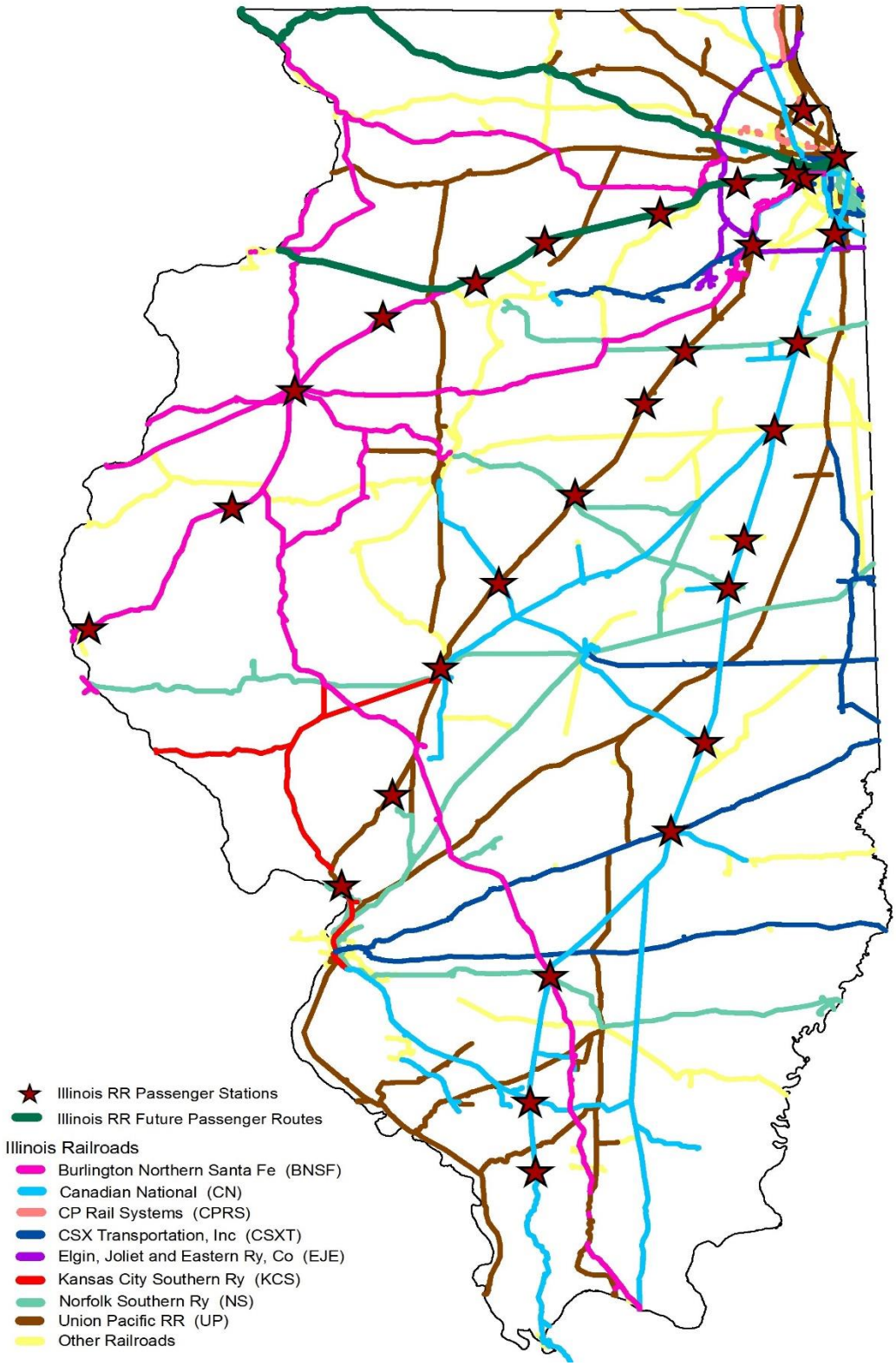

Figure 2 Illinois Railroad Network Map[1]

[1] http://www.idot.illinois.gov/Assets/uploads/images/Transportation-Systems/Network/RailSystem.jpg

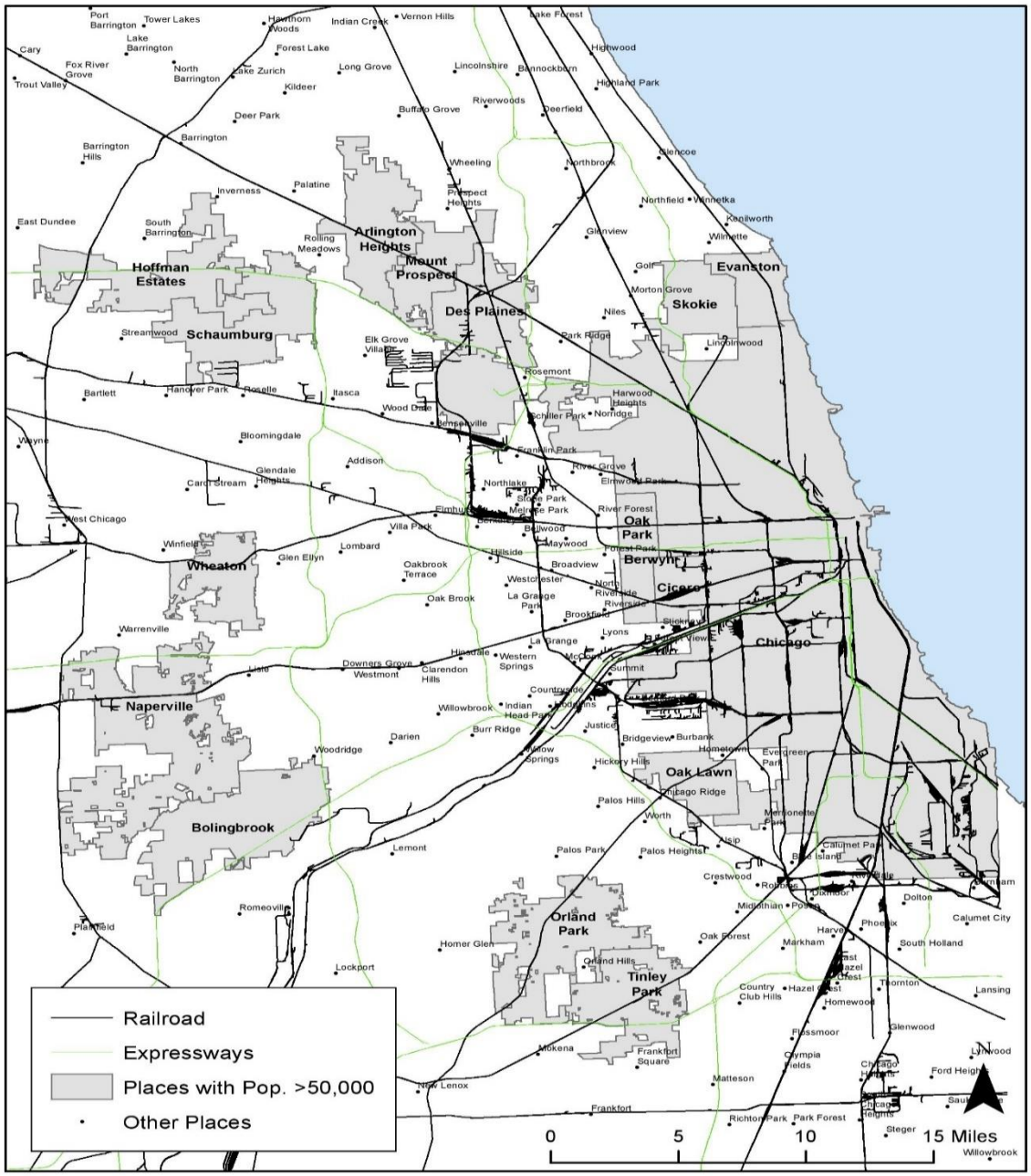

Figure 3 Chicago Area Railroad Map[2]

[2] http://www.idot.illinois.gov/assets/uploads/files/transportation-system/maps-&-charts/railroad-maps/chicagobackside.pdf

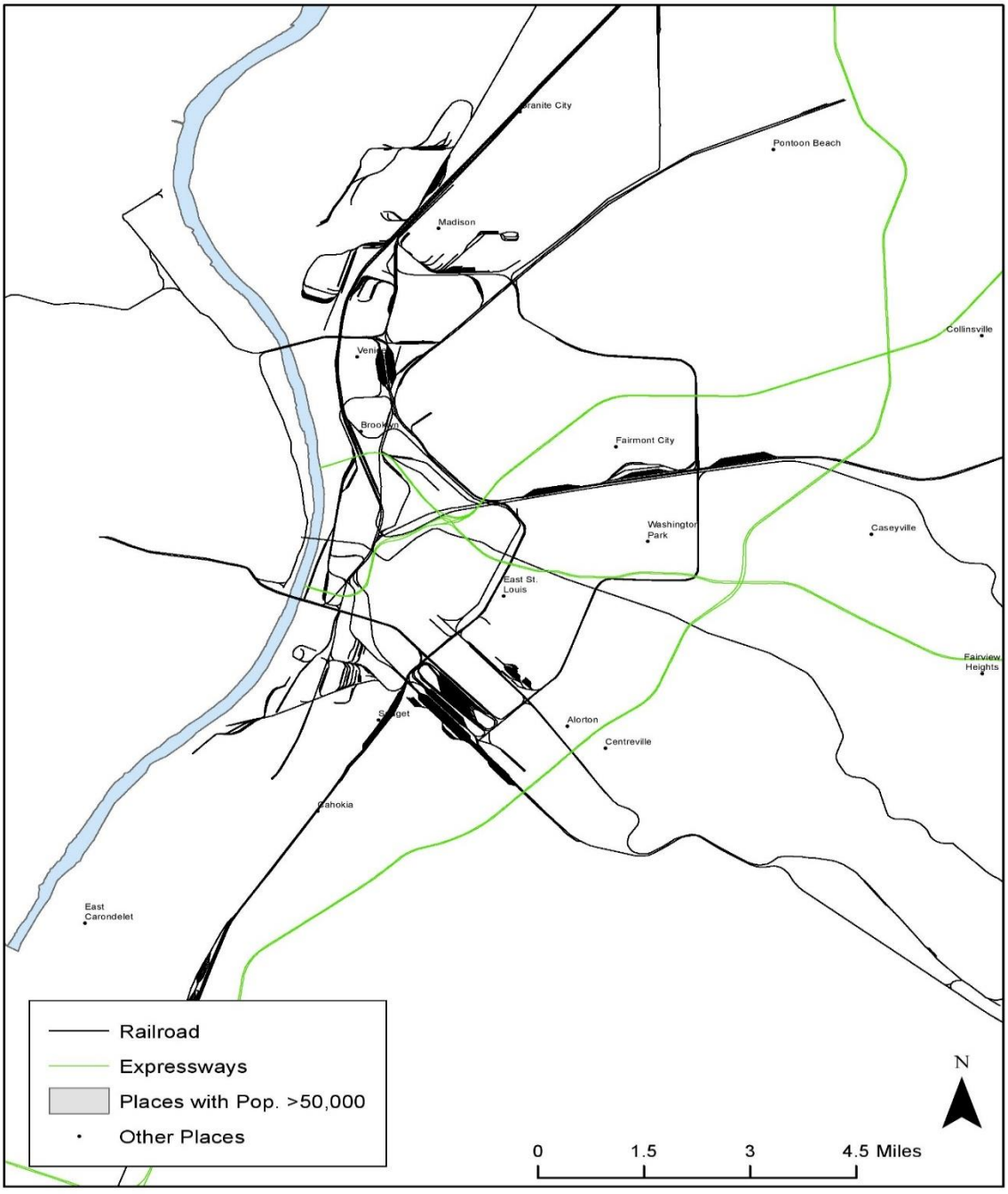

Figure 4 East St. Louis Area Railroad Map[3]

[3] http://www.idot.illinois.gov/assets/uploads/files/transportation-system/maps-&-charts/railroad-maps/chicagobackside.pdf

7 Intermodal Connections

Illinois has tremendous opportunities for intermodal connections between intercity passenger rail, commuter rail, heavy rail, bus, suburban bus and intercity bus lines throughout the state. For the purposes of the Plan, the focus is on intermodal connections provided to or by intercity passenger rail. A majority of the intercity passenger rail intermodal connections are provided in the Chicago area and the six collar counties.

Intermodal connections are essential to providing efficient transportation options to users. They are defined here as an intercity passenger rail service facility's ability to let passengers conveniently connect with other transportation modes. Chapter 2 provides a profile of existing intermodal connections at intercity passenger rail stations.

8 Rail Transportation Safety and Security

Rail safety is a priority for the railroads, the ICC and IDOT. Safety has potential impacts on the general public and the efficiency of rail operations. Although the major railroads have long had their own police and security forces, the focus of rail security is more important with the threat of terrorist attacks on the rail system.

A number of federal and Illinois state agencies, in concert with railroads and rail operators, continue to make progress with regard to rail safety and security. The primary agencies responsible for security related to transportation modes in Illinois are the U.S. Department of Homeland Security and IDOT. These agencies have addressed transportation security largely through identifying critical infrastructure assets, developing protection strategies for these assets and developing emergency management plans. Rail safety and security are addressed in Chapter 2.

9 Economic and Environmental Impacts

Rail is a vital component of economic activity within Illinois, and transportation investment can improve access and attract new business. Freight and passenger rail service significantly impacts the competitive position of Illinois businesses, as well as the quality of life within the state. Chapter 2 analyzes congestion mitigation, safety impacts, trade and economic development, energy use, air quality, climate change, and land use and community impacts for passenger and freight rail. Chapter 2 also discusses demographic and economic growth factors, such as population, employment and personal income

10 Freight Rail Commodity Profile

Illinois has one of the most extensive and heavily used rail systems in the nation. Illinois ranks second among all states in total railroad mileage and fourth in the number of operating railroads. Chapter 2 summarizes rail freight flows by key commodities, directional flows and geographic markets.

Directional Rail Flows

In 2014, Illinois railroads carried a total of 640 million tons and nearly 15 million carloads of freight (**Figure 3**). The most prevalent directional flow was Non-Illinois U.S. to Illinois, representing nearly 36 percent by weight, followed by Illinois to Non-Illinois U.S., representing 28.5 percent by weight.

Figure 3. Illinois Rail Traffic Directional Flows

Traffic Type	Tons	Percent	Carload Units	Percent
Illinois to Non-Illinois U.S.	181,768,824	28.44	5,481,481	36.79
Non-Illinois U.S. to Illinois	227,693,292	35.62	5,657,810	37.97
Non-Illinois U.S. to Non-Illinois U.S.	159,918,949	25.02	2,422,741	16.26
Illinois to Illinois	24,368,738	3.81	279,765	1.88
Canada to Illinois	17,864,802	2.80	456,775	3.07
Canada to Non-Illinois U.S.	20,233,578	3.17	342,011	2.30

Source: 2014 STB Carload Waybill Sample Data

11 Proposed Passenger Rail Improvements and Investments

IDOT, Metropolitan Planning Organizations (MPOs), service operators and providers have been active in planning efforts for passenger rail services for decades. **Chapter 3** examines projects that have been proposed by MPOs in their Long-Range Transportation Plans (LRTPs), projects that have been funded to improve existing passenger rail corridors or services, and projects that have been funded to establish new intercity and high-speed passenger rail services. Intermodal connections at existing and new passenger rail stations and recommendations on ways to further promote intermodal connectivity are also discussed. **Chapter 5** identifies specific Illinois short-term and long-term passenger rail investments.

12 Proposed Freight Rail Improvements and Investments

The Illinois rail network is the second largest in the country, and Illinois is the only state in which all seven Class I railroads operate. While capacity across the freight rail network today is generally sufficient to meet current needs, freight rail volume is expected to double by 2025, as road congestion and demand for goods continue to increase.

Freight railroads, owners of the rail infrastructure, are responsible for the condition of the majority of the nation's track, bridges and connections at ports and intermodal facilities, and proactively maintain, replace and upgrade systems through maintenance and capital programs. **Chapter 4** identifies proposed freight rail capital and crossing safety improvements and investments that could address the needs of the state. Chapter 5 identifies specific short-term and long-term freight rail investments.

13 The State's Rail Service and Investment Program

Chapter 5 describes the proposed passenger and freight rail investments needed to achieve the state's vision for rail service in the future, as well as the measures and methodologies utilized to select projects. IDOT's vision for rail transportation in Illinois centers on improving quality of life for its residents while fostering economic growth and environmental sustainability.

The Short-Range Rail Investment Program (1-5 years) consists of projects that are evaluated based largely on the respective eligibility criteria, evaluation methodology and level of benefits associated with the respective source of funding. Larger-scale projects, which are financed through a combination of federal and state funding sources, are selected initially on the basis of eligibility criteria of the respective federal program and the availability of Illinois funding.

The Long-Range Investment Program (6-20 years) is comprised of projects that have been identified by IDOT, the state's railroad operators, or other rail stakeholders to improve rail safety or efficiency of the Class I or short line freight network, or to expand or implement new intercity passenger service. These projects, however, are not expected to be implemented within the next five years, or in most cases, the funding necessary to implement the projects has not been identified.

Simultaneously with the development of the rail plan, IDOT is also updating its Long-Range Transportation Plan (LRTP). The LRTP established a set of overarching goals pertaining to transportation in Illinois. Those goals include:

- Economic Growth
- Livability
- Access
- Resilience
- Stewardship
- Safety

As part of the development of this Plan, IDOT endorsed its rail vision, which was further refined through nine goals and specific objectives describing the role of rail service in Illinois and illustrating what these services will look like in the future (Chapter 1). Chapter 5 shows how the nine strategic goals of the Plan align with the six overarching goals of the LRTP.

14 Coordination and Review

The State of Illinois and IDOT are committed to an ongoing stakeholder and public involvement process for all aspects of its transportation program. The 2017 State Rail Plan Update will be published and presented as an element of the state's 2017 Long-Range Transportation Plan (LRTP), as required in 23 U.S.C. 135 and 49 U.S.C. 5304, in accordance with the Moving Ahead for Progress in the 21st Century Act (MAP-21). Incorporation of the Plan within the statewide LRTP may provide an opportunity for Illinois to more fully envision and present the rail program with a broader context of the state's multimodal statewide transportation system. Outreach efforts for rail and freight plans were combined with LRTP outreach in order to guide the development of the various plans. Outreach efforts included:

- Overarching Goals Survey

- All Our Ideas Survey
- Tradeoff Input
- Conversation Cafes
- Illinois State Freight Advisory Council (ISFAC)

Chapter 6 details the outreach efforts for the rail, freight and long-range transportation plans.

Chapter 1: The Role of Rail in Statewide Transportation (Overview)

1.1 Introduction

The Illinois Department of Transportation developed this document to update the 2012 State Rail Plan. This Plan formulates the state's vision, describing the role of passenger and freight rail services in Illinois and illustrating what these services will look like in the future. It depicts the current rail system in Illinois, explains rail service needs and challenges, and provides recommendations for sustaining a safe and sound rail infrastructure.

By most measures, Illinois is the busiest railroad state in the nation. Railways have been instrumental in Illinois' economic development, easily transporting commodities such as farm produce, mineral ore and coal. Illinois also serves as the focal point for expanding intercity rail passenger service in the Midwest and increasing commuter rail service between its cities.

This chapter summarizes rail's current and proposed future role in the state's multimodal transportation system. It describes the state's goals for the multimodal transportation system, as well as connections between rail services and other modes in the state transportation system.

1.2 Illinois' Goals for its Multimodal Transportation System

The Illinois Department of Transportation's mission is to provide safe and cost-effective transportation for Illinois in ways that enhance the quality of life, promote economic prosperity and demonstrate respect for the environment. IDOT is responsible for sustaining, strengthening, expanding and maintaining the state's transportation system. It partners with local, state and federal entities to ensure that the transportation network fosters and supports economic growth at the community, regional, state and national levels.

IDOT's rail vision is designed to support economic development, human capital and workforce development, and improve the quality of life for all Illinoisans. In order to achieve the vision of passenger and freight rail transportation in Illinois, the needs and requirements of the customers must be met. With these customers in mind, goals and measurable objectives are identified for passenger and freight service to support the vision. The passenger rail vision and freight rail vision for the State Rail Plan are as follows:

Passenger Rail Vision:

Develop and maintain a passenger rail system that provides the traveling public with a safe, attractive, energy-efficient, cost-effective, sustainable and reliable personal transportation alternative that promotes mobility and enhances quality of life.

Freight Rail Vision:

To foster an economically competitive and sustainable freight rail system that moves goods safely, efficiently and expeditiously across and within Illinois.

In order to maintain a safe, reliable and economically efficient passenger and freight rail infrastructure, goals and objectives must be identified and strategies established to achieve these goals and objectives. Illinois' proposed goals and objectives are:

Provide an intercity passenger rail system that improves the quality of life for Illinois' residents and visitors.

- Continuously seek to improve reliability
- Increase efficiency and service convenience
- Increase accessibility for low-income people, the elderly and/or special needs groups that have limited access to other transportation modes

Promote, educate and expand intermodal and multimodal connectivity.

- Increase coordination between freight, intercity passenger and commuter rail networks and other transportation
- Improve access to commuter and intercity passenger service via other modes
- Improve the efficiency of passenger transfers between modes

Enhance economic development and promote economic competitiveness

- Increase accessibility to passenger rail service to increase the potential for trade and economic development and employment opportunities. Attract and retain new businesses.
- Support transit-oriented development in and near intercity passenger and commuter rail stations
- Invest in long-term "mega projects" (e.g., the Midwest Regional Rail Initiative (MWRRI), a plan to build a high-speed rail hub in Chicago; complete the CREATE program)
- Maximize sustainability

Provide a rail system that is safe, energy efficient and environmentally sustainable

- Identify and improve hazardous highway grade crossings to promote rail and highway safety
- Promote safety efforts throughout the system to prevent pedestrian fatalities
- Improve capacity and promote congestion relief on the state's rail lines and highway network
- Work with adjacent states to achieve a regional transportation solution
- Realize positive air quality gains and reduced energy consumption with efficient passenger and freight operations
- Promote efforts to secure passenger and freight railroad operations; reduce the number of trespassers
- Implement positive train control (PTC)

Develop sustainable funding

- Identify needed capacity enhancements or capital improvements
- Maintain a rail funding structure that provides adequate resources for rail needs incorporating federal, state, local and private revenue sources
- Support public-private partnerships and private sector initiatives
- Support joint use of transportation facilities for compatible activities
- Explore innovative financing methods

- Advocate for the creation of dedicated federal and state programs for rail infrastructure investment

Improve efficiency

- Complete the CREATE program of projects

Grow the economy

- Restore the Rail Freight Loan Program's financial soundness
- Establish a new sustainable Rail Freight Assistance Program
- Establish a new sustainable Rail Freight Emergency Bridge Replacement Program for Class II and Class III Railroads

Safety

- Complete CREATE's remaining grade separation projects

The Rail Plan encompasses all of Illinois. It includes rail freight carrier services, intercity high-speed rail services, Amtrak passenger rail services and commuter rail services. Researchers inventoried Illinois' overall rail transportation system during this Plan's development, which they now present as individual profiles on all of Illinois' major rail service providers. The Plan identifies anticipated trends, needs and issues that will affect rail service and demand over the next 20 to 30 years. It also provides a long-range investment program framework for meeting the various needs of rail passenger and freight services within Illinois.

1.3 Rail Transportation's Role in the Illinois Transportation System

Chicago's strength in the 1840s and 1850s as a Great Lakes shipping center facilitated Illinois' rail industry. Illinois' first railroad, the Galena & Chicago Union, was chartered in 1836 to transport lead from the mines at Galena in northwestern Illinois to Chicago. Twelve years later, the railroad laid its first tracks between Chicago and Oak Ridge (currently Oak Park). It never continued further. The Galena & Chicago Union's terminal stood near the corner of Canal and Kinzie streets in Chicago.

Other railroads connected in Chicago to interchange freight traffic and people to create a rail gateway that continues stronger than ever today. Although the nation's railroads now have been merged into just a few large systems, Chicago remains the central point where the tracks of one company end and those of another begin. Chicago ranks second (behind New York City) in terms of the volume of commuter rail passengers carried each day.

According to the 2012 Association of American Railroads statistics, Illinois ranks first in total rail carloads originated, terminated and carried; second in total rail miles, freight rail employment, freight rail wages, railroad retirement payments and total rail tons originated and terminated; third in rail tons carried and railroad retirement beneficiaries; and fourth in total number of freight railroads.[4]

Today, Illinois has the second-largest rail system in the United States, second only to Texas, and is the only state in which all seven Class I railroads operate. Chicago, the largest rail hub in North

[4] https://www.aar.org

America, serves 500 freight trains (with a total of about 37,000 freight cars) and 700 rail intercity and commuter trains on a daily basis. In Fiscal Year 2016, Amtrak trains in Illinois served over 4.6 million riders using 56 daily trains.[5]

Both freight and commuter rail play a key role in Illinois' transportation network. Illinois' expansive rail freight network, highway system and port terminals, together with over 200 intermodal freight transfer facilities, provide the state's businesses and industries with cost- and transportation-efficient means to use the most effective and competitive combination of modes to meet their needs.

1.4 Institutional Structure of Illinois' State Rail Program

1.4.1 Illinois Department of Transportation (IDOT)

In Illinois, IDOT has statutory responsibility for planning, constructing, operating and maintaining Illinois' extensive transportation network, which encompasses airports, bridges, highways, passenger rail, public transportation and freight rail systems. In 1967, the Illinois Highway Study Commission first recommended creation of a department of transportation.

With widespread social change and reform in the 1960s – exacerbated by a growing economic crisis in the state – came a call to redraft the Illinois Constitution of 1870. This redraft resulted in changes that directly affected Illinois' transportation network, such as greater flexibility for public funding of highways and other forms of public transportation. Illinois voters approved the new constitution in a special election on Dec. 15, 1970, and the Illinois Constitution of 1970 went into effect on July 1, 1971. The adoption of the 1970 Constitution greatly influenced the creation, implementation and direction of the future Illinois Department of Transportation. On Jan. 1, 1972, the Illinois 77th General Assembly created the Illinois Department of Transportation. Illinois became the 14th state to establish a department of transportation.

Today, the department employs approximately 4,800 people, with responsibilities in all transportation modes. IDOT operates its central headquarters in Springfield, an office in Chicago and five transportation regions across the state. Throughout Illinois, IDOT strives to accomplish its objectives through planning, programming, construction, and/or maintenance of road, bridge, public transportation, rail and aviation projects. The five regions host a total of nine highway districts, strategically located to best assess and oversee Illinois' transportation infrastructure.

Oversight of rail operations with IDOT is located in the department's Office of Intermodal Project Implementation (Office of Intermodal Project Implementation) and its Division of Highways (DOH).

1.4.2 Office of Intermodal Project Implementation (OIPI)

IDOT's Office of Intermodal Project Implementation coordinates activities for transit, rail and aeronautics. Its mission is to provide safe, efficient, affordable, reliable and coordinated transportation of people and goods through rail, mass transit and related transportation modes. The Office of Intermodal Project Implementation is responsible for developing and recommending policies and programs; developing, implementing, and administering operating, capital, and planning program projects; and participating in local and statewide planning and programming activities to promote mass transportation systems and services in Illinois.

[5] Amtrak Fact Sheet, Fiscal Year 2016

Bureaus within the Office of Intermodal Project Implementation include the Bureau of Transit Capital, Bureau of Transit Operations, Bureau of Freight Rail Management and Bureau of Passenger Rail Corridor Management. The Office of Intermodal Project Implementation also includes the Division of Aeronautics and the Program Support (Planning) Section.

IDOT's Office of Intermodal Project Implementation is responsible for:

- Developing and recommending policies and programs to promote mass transportation systems and services in Illinois
- Developing, implementing and administering operating, capital, and technical study (planning) projects
- Participating in local and statewide planning and programming activities
- Conducting technical (planning) studies and engineering project reviews
- Maximizing the amount of federal funds received in Illinois for freight and public and specialized transportation (including passenger rail)

The following functions are performed within the Office of Intermodal Project Implementation:

- Transit Capital – This bureau evaluates and administers funding through transit grants for capital improvement projects issued to both the Regional Transportation Authority (for projects belonging to the Chicago Transit Authority (CTA), Northeast Illinois Regional Commuter Railroad Corporation (Metra and Pace Bus), other suburban municipalities, as well as downstate urban and rural transit systems. This bureau also oversees the Statewide Consolidated Vehicle Procurement Program.
- Transit Operating – This bureau provides oversight and administers operating federal and state transit grant programs through grant administration and technical assistance for downstate urban and rural transit systems.
- Railroads – The Office administers the State's freight and passenger rail programs, including the rail freight program, passenger rail and high-speed capital projects, and operating assistance for supplemental Amtrak service.
- Aeronautics – This bureau oversees the Illinois State Aviation System, administers and supports cost-efficient airport improvement projects, develops rules and guidance that enhance safety and efficiency, and cooperates and coordinates with airport sponsors, the Federal Aviation Administration (FAA), government agencies, the aviation industry, and the public in the advancement and promotion of aviation.
- Program Support (Planning) – The Office is represented in regional and statewide planning and engineering efforts. It participates in engineering reviews, and conducts detailed evaluations; analyses of public transportation and multimodal projects; and public transportation, freight, and multimodal planning studies.

The department's Division of Highways (DOH) oversees IDOT's federally funded Highway-Railway Grade Crossing Program. Its Bureau of Local Roads and Streets and its Bureau of Safety Programs and Engineering administer local Highway Safety Improvement Program (HSIP) funds. The department's nine districts and the division's Bureau of Design and Environment and Bureau of Safety Programs and Engineering administer the state Highway Safety Improvement Program's rail funds.

Figure 1.4.1 shows the geographical breakdown of IDOT's five regions and nine districts. District staff, which IDOT district engineers lead, are familiar with the unique demands and local needs in their areas of responsibility. All 102 counties in Illinois are assigned to one of the districts.

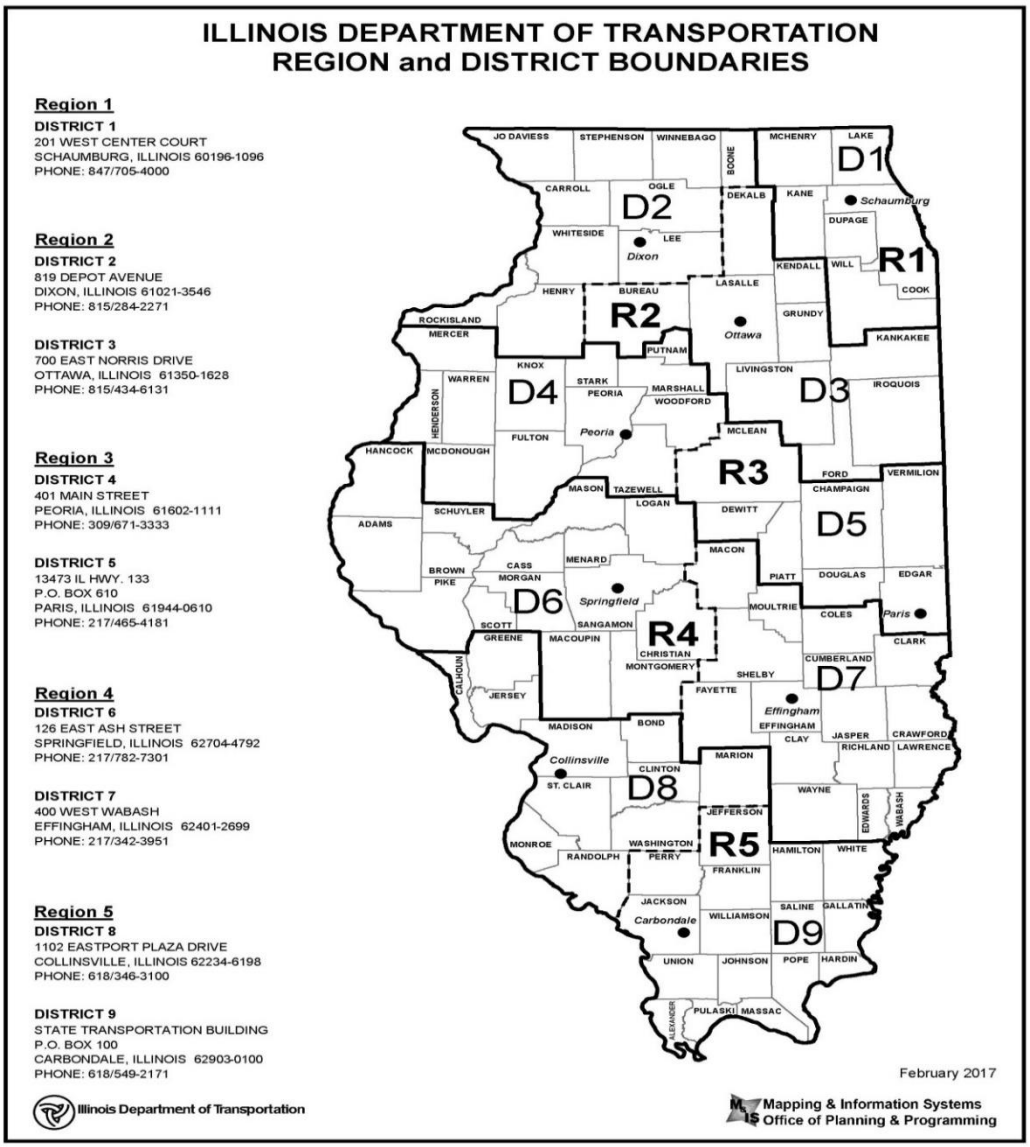

Figure 1.4.1 Illinois Department of Transportation Region and District Boundaries

1.4.3 Other State and Local Planning Activities in Illinois

In addition to IDOT's primary responsibility for rail planning, policy and project development, other state and local agencies in Illinois are involved in delivering rail services. This includes rail authorities and transit agencies, which play important roles in the safety, viability and efficiency of the state's rail system. The following sections describe the role of other state and local agencies that are instrumental toward the oversight and funding of safety, local projects, or coordination and implementation of rail-related economic development opportunities.

Illinois Commerce Commission (ICC)

The Illinois Commerce Commission is the official resource for railroad safety questions and complaints in Illinois. The Interstate Commerce Commission administers a number of important programs and is responsible for rail safety in Illinois.

Commercial Transportation Law provides general safety requirements for track, facilities and equipment belonging to rail carriers within Illinois, and gives the commission jurisdiction to administer and enforce those requirements. Functions of the commission's Rail Safety Section include:

- Management of crossing safety projects that the Grade Crossing Protection Fund partly pays
- Engineering oversight of all safety improvements and/or modifications to the state's public highway/rail crossings
- Inspection of all railroad track in the state for defects which could cause train derailments
- Oversight of all railroad hazardous material shipments through the state, including radioactive waste and spent nuclear fuel
- Engineering oversight of all improvements/modifications to highway traffic signal systems interconnected with railroad warning devices
- Implementation of Illinois' Operation Lifesaver public education campaign
- Investigation of highway/rail collisions and other rail-related incidents that occur in Illinois

1.4.4 Illinois Intercity and Commuter Rail Operations

Amtrak provides intercity passenger rail services in Illinois while Metra and the Northern Indiana Commuter Transportation District provide commuter rail service in the larger Chicago metropolitan region. These groups coordinate with one another and with IDOT on projects to produce cohesive planning documents for the state. The agencies involved in providing intercity passenger and commuter rail service in Illinois are as follows:

Amtrak

Amtrak provides medium- and long-distance intercity passenger rail service throughout the United States. In Illinois, Amtrak operates eight long-distance routes, four corridor services and four in-state routes to 30 stations (Amtrak route descriptions are discussed in Chapter 3).

Illinois is one of Amtrak's best partners; in fact, it is Amtrak's second-largest state partner. Amtrak continues to collaborate with IDOT as well as other agencies to plan and implement a number of projects that directly affect Amtrak's Illinois service.

Regional Transportation Authority (RTA)

The Regional Transportation Authority is the financial and oversight body for the three transit agencies in northeastern Illinois – the Chicago Transit Authority (CTA), Metra and Pace. The RTA Act refers to these transit agencies as Service Boards. The Regional Transportation Authority serves Cook, DuPage, Kane, Lake, McHenry and Will counties. It implements projects, administers grant programs and develops plans aimed at growing ridership and improving mobility.[6] It also publishes documents that guide the future of the region's transit system, including the five-year Regional Transit Strategic Plan, the Chicago Regional Green Transit Plan, and various resource guides.

Metra

Introduced by RTA's commuter Rail Board in 1984, Metra is a commuter rail system in the Chicago metropolitan area. It is the fourth-busiest commuter rail system in the United States by ridership and the largest and busiest commuter rail system outside the New York City metropolitan area.[7] Metra began operating several formerly bankrupt commuter railroads that would have closed down if it had not taken them over and provided a single identity to the many infrastructure components that the RTA's commuter rail system served.

Metra is responsible for capital improvements and planning for 11 commuter rail lines that it operates or contracts others to operate. Three of these lines are operated under contract with the Union Pacific (UP) and one with the Burlington Northern Santa Fe (BNSF) railroad. While Metra owns all rolling stock and is responsible for most stations on these routes, the freight carriers use their own employees and control the right-of-way for those routes. In keeping with Metra's purpose to provide a single identity for commuter rail in the region, the freight operators provide service under the Metra name.

Northern Indiana Commuter Transportation District (NICTD)

The Northern Indiana Commuter Transportation District operates the South Shore Line, which operates between Chicago's Millennium Station and the South Bend (Indiana) International Airport. A Board of Trustees representing the four Indiana counties that the South Shore Line[8] serves governs NICTD.

NICTD's primary mission is to provide safe, reliable transportation to its customers. With financial aid from federal and state governments, NICTD has begun a major capital improvement program designed to enhance safety, improve service reliability, reduce travel time to the Loop, improve rush hour capacity and improve passenger amenities at key stations (parking, security and passenger waiting areas).

1.4.5 Metropolitan Planning Organizations (MPOs)

Metropolitan planning organizations are federally mandated and funded transportation policy-making organizations in the United States. The Federal-Aid Highway Act of 1962 required metropolitan planning organizations for urbanized areas with more than 50,000 people. Representatives from local governments and governmental transportation authorities sit on their boards and committees.

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[6] http://www.rtachicago.org/index.php/plans-programs.html
[7] https://metrarail.com
[8] http://www.mysouthshoreline.com/about/nictd

Metropolitan Planning Organizations are required to maintain and continually update a Long-Range Transportation Plan (LRTP) as well as a Transportation Improvement Program (TIP), which is a multi-year program of transportation projects to be funded with federal and other transportation funding sources. They must cooperatively work with area transportation stakeholders to understand and anticipate the area's travel needs and develop these documents. Illinois has 16 metropolitan planning organizations, which are the following:

- Bi-State Regional Commission (BSRC)
- Champaign-Urbana Urbanized Area Transportation Study (CUUATS)
- Chicago Metropolitan Agency for Planning (CMAP)
- Danville Area Transportation Study (DATS)
- Decatur Urbanized Area Transportation Study (DUATS)
- DeKalb-Sycamore Area Transportation Study (DSATS)
- Dubuque Metropolitan Area Transportation Study (DMATS)
- East-West Gateway Council of Governments (EWG)
- Kankakee Area Transportation Study (KATS)
- McLean County Regional Planning Commission (MCRPC)
- Peoria/Pekin Urbanized Area Transportation Study (PPUATS)
- Rockford Metropolitan Agency for Planning (RMAP)
- Springfield Area Transportation Study (SATS)
- South East Metropolitan Planning Organization (SEMPO)
- Southern Illinois Metropolitan Planning Organization (SIMPO)
- State Line Area Transportation Study (SLATS)

Figure 1.4.2 denotes the areas of each of Illinois' metropolitan planning organizations:

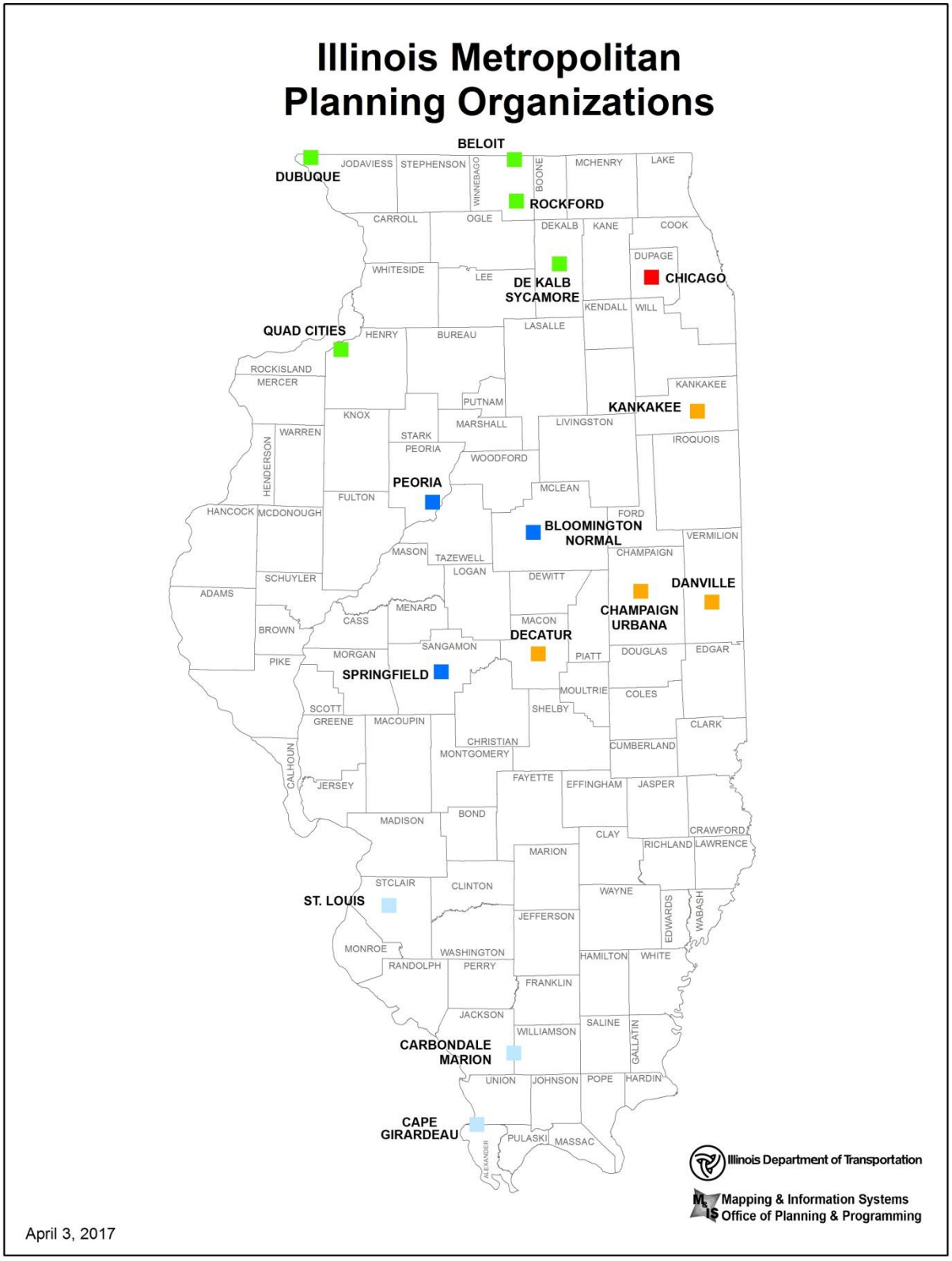

Figure 1.4.2 Illinois Metropolitan Planning Organizations (Source: IDOT)

Bi-State Regional Commission (BSRC)

The Bi-State Regional Commission adopted the *2045 Quad Cities Long-Range Transportation Plan* in March 2016.[9] It prepared this report with local governments, the U.S. Department of Transportation, the Federal Highway Administration, the Federal Transit Administration, IDOT and the Iowa Department of Transportation (IADOT).

Champaign-Urbana Urbanized Area Transportation Study (CUUATS)

The Champaign-Urbana Urbanized Area Transportation Study approved *Sustainable Choices 2040* in December 2014. This long-range transportation plan shall guide the evolution of the transportation system in the Champaign-Urbana urbanized area over the next 25 years.[10] This plan seeks to use the existing infrastructure to optimize mobility while promoting a multimodal transportation network that encourages accessibility, economic development and environmental sensitivity to enhance the quality of life for all users.

The Champaign-Urbana Urbanized Area Transportation Study continues to collect data and is planning for the next Long-Range Transportation Plan update, which will take place between 2017 and 2019.

Chicago Metropolitan Agency for Planning (CMAP)

The Chicago Metropolitan Agency for Planning seeks to manage land use planning and transportation in the region comprised by Cook, DuPage, Kane, Kendall, Lake, McHenry and Will counties in northeastern Illinois. CMAP is responsible for developing strategies to protect natural resources, improve mobility and minimize traffic congestion.

The Chicago metropolitan area has significantly changed since the Chicago Metropolitan Agency for Planning unanimously adopted the *GO TO 2040* Plan. During the first half of 2016, CMAP staff partnered with organizations to co-host workshops to increase awareness about *ON TO 2050* and collect feedback on priorities for the region. From 2017 through October 2018, *ON TO 2050* will continue to receive feedback and recommendations from stakeholders, which is essential to the region's success in defining and achieving its long-term goals.[11]

Danville Area Transportation Study (DATS)

The Danville Area Transportation Study is the designated metropolitan organization within the Danville Metropolitan Planning Area. It is committed to leading the planning, funding and development of a regional multimodal transportation system, which promotes personal and societal economic prosperity while encouraging sustainable growth and development practices to protect and preserve valuable community and natural assets.

The Danville Area Transportation Study's *2040 Long-Range Transportation Plan* was completed in July 2015.[12] Its *FY 2018-2021 Transportation Improvement Program* was available for public review in February 2017. This document identifies federal, state and local funding for transportation projects over the next three years.

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[9] http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-19-45/quad-cities-metro-lrtp-long-range-transportation-plan

[10] https://cuuats.org/sites/lrtp2040/

[11] http://www.cmap.illinois.gov/onto2050

[12] http://www.dats-il.com/

Decatur Urbanized Area Transportation Study Plans (DUATS)

In 2013, the Decatur Urbanized Area Transportation Study completed the Decatur Area Efficiency Study, which evaluated rail and truck movements within the region. In December 2014, it published *Decatur Pathways 2040 – Long-Range Transportation Plan.*[13] This Plan seeks to identify short- and long-term improvements that enhance the overall efficiency of the regional transportation network. The study evaluated at-grade rail crossings, which are a significant source of travel delays given the high number of trains, train length, relatively slow speed of trains in the urbanized area, and the high traffic volumes on major arterial roads.

DeKalb/Sycamore Area Transportation Study (DSATS)

The DeKalb/Sycamore Area Transportation Study is the metropolitan planning organization that administers federal and state funding for highway and public transit projects in the DeKalb, Illinois, Metropolitan area. It adopted the *2040 Long-Range Transportation Plan in June 2015* and the *FY2017 – 2021 Transportation Improvement Program* in June 2016.[14]

Dubuque Metropolitan Area Transportation Study (DMATS)

The Dubuque Metropolitan Area Transportation Study is a tri-state metropolitan planning organization located where Illinois, Iowa and Wisconsin intersect. It adopted its *Long-Range Transportation Plan 2045* in October 2016 and amended the Plan in January 2017.[15]

East-West Gateway Council of Governments (EWG)

The East-West Gateway Council of Governments provides a forum for the bi-state St. Louis area's governments to work together to solve problems that cross jurisdictional boundaries. Since 1965, its geographic region is the 4,500 square miles encompassed by Franklin, Jefferson, St. Charles and St. Louis counties in Missouri and by Madison, Monroe and St. Clair counties in Illinois. The city of St. Louis is in St. Louis County.

The East-West Gateway's Board of Directors adopted *Connected 2045*, the Long-Range Transportation Plan for the St. Louis region, in June 2015.[16]

Kankakee Area Transportation Study (KATS)

The Kankakee Area Transportation Study is the metropolitan planning organization for the Kankakee Urbanized Area, which includes the communities of Aroma Park, Bourbonnais, Bradley, Kankakee, Sun River Terrace and portions of unincorporated Kankakee County. It adopted its *2040 Long-Range Transportation Plan* in May 2016.[17]

McLean County Regional Planning Commission (MCRPC)

The McLean County Regional Planning Commission is responsible for coordinating long-range transportation planning activities in Bloomington, Normal and the rest of McLean County. The *FY2017-2021 Transportation Improvement Program* for the Bloomington-Normal Urbanized Area

[13] http://www.decaturil.gov/
[14] http://www.cityofdekalb.com/470/DSATS
[15] http://www.eciatrans.org/
[16] http://www.ewgateway.org/
[17] http://planning.k3county.net/

was completed in June 2016. The *2017 Long-Range Transportation Plan* will be completed in fall 2017.[18]

Peoria/Pekin Urban Area Transportation Study (PPUATS)

The Peoria/Pekin Urban Area Transportation Study is the metropolitan planning organization for the Peoria Urbanized Area, providing transportation planning for Peoria, Tazewell and Woodford counties. It adopted the *2040 Long-Range Transportation Plan* in March 2015.[19]

Region 1 Planning Council

The Region 1 Planning Council is the metropolitan planning organization for the Rockford region in Illinois. Its predecessor, the Rockford Metropolitan Agency for Planning, adopted *Transportation for Tomorrow (2040): A Long-Range Transportation Plan for the Rockford Region* in July 2015.[20]

South East Metropolitan Planning Organization (SEMPO)

As the metropolitan planning organization for the Cape Girardeau–Jackson Urbanized Area, the South East Metropolitan Planning Organization is responsible for meeting federal metropolitan planning regulations for an area that includes the city of Cape Girardeau, the city of Jackson, and portions of Cape Girardeau County and Scott County, Missouri. Its area also includes portions of the village of East Cape Girardeau and Alexander County, Illinois. In February 2017, it adopted the *2016-2040 Metropolitan Transportation Plan*.[21]

Southern Illinois Metropolitan Planning Organization (SIMPO)

The Southern Illinois Metropolitan Planning Organization was created to perform and carry out a continuing, cooperative and comprehensive transportation planning process for the Carbondale Urbanized Area in accordance with applicable federal laws, policies and procedures, and with the cooperation and assistance of its members and the U.S. Department of Transportation (USDOT). It adopted the *2040 Long-Range Transportation Plan*, *An Urban Beginning: Moving Forward Together* in September 2015.[22]

Springfield Area Transportation Study (SATS)

The Springfield Area Transportation Study is the metropolitan planning organization for the Springfield area. It is responsible for coordinating long-range planning in the city of Springfield and Sangamon County. It adopted its *2040 Long-Range Transportation Plan* in March 2015.[23]

Stateline Area Transportation Study (SLATS)

The Stateline Area Transportation Study is the metropolitan planning organization for the Beloit Urbanized Area, which includes the city of Beloit, town of Beloit, town of Turtle, and Rock County in Wisconsin, and the city of South Beloit, village of Rockton, Rockton Township, and Winnebago County

[18] http://www.mcplan.org/

[19] http://www.tricountyrpc.org/

[20] http://rmapil.org/lrtp/

[21] http://southeastmpo.org/

[22] http://greateregypt.org/

[23] http://co.sangamon.il.us/

in Illinois. In October 2016, the Stateline Area Transportation Study adopted the *2040 Long-Range Transportation Plan.*[24]

1.4.6 Local Economic Development Agencies

The state of Illinois has a number of local public and private economic development agencies that recruit industries and businesses on the basis of their location, available labor force, room for growth, and access to rail and other transportation assets.

The Illinois Economic Development Directory[25] lists over 100 entities around the state, including economic development agencies, partnerships, development councils, corporations and associations at the regional, county or city level of government. Many of these agencies offer incentives such as tax exemptions and credits and other means of assistance to attract business interests. The economic development arms of major corporations in Illinois, such as utilities, also work closely with local, regional and state officials and provide comprehensive site information.

Although these agencies do not generally work directly with freight operators, they do have a vested interest in the level of rail services and rail assistance programs available to supplement their incentives.

1.5 IDOT Authority to Conduct Rail Planning and Investment

The Civil Administrative Code of Illinois, Department of Transportation Law, gives IDOT the authority to qualify for and disburse federal rail funding, and establish a state program through which it can make rail loans and grants to qualified entities within the state.

20 ILCS 2705/2705-400 allows IDOT to exercise those powers necessary for the state to qualify for rail service continuation subsidies pursuant to the provisions of the federal Regional Rail Reorganization Act of 1973, the Railroad Revitalization and Regulatory Reform Act of 1976, or other relevant federal or state legislation. It includes the authority to:

1. Administer a State Plan for rail transportation and local rail services
2. Administer and coordinate the State Plan
3. Provide for equitable distribution of federal rail service continuation subsidies in the State Plan
4. Develop or assist the development of local or regional plans
5. Promote, supervise, and support safe, adequate, and efficient rail service
6. Employ sufficient trained and qualified personnel
7. Maintain adequate programs of investigation, research, promotion, and development about such purposes and to provide for public participation
8. Provide satisfactory assurance on the state's behalf that the state will adopt such fiscal control of accounting procedures as may be necessary to assure proper federal fund disbursement
9. Comply with regulations of the Secretary of Transportation and the U.S. Department of Transportation (USDOT) affecting federal rail assistance funds
10. Review all impending rail abandonments and provide its recommendations on those abandonments

[24] http://www.beloitwi.gov/

[25] https://www.eda.gov/resources/economic-development-directory/states/il.htm

1.5.1 State Revenue Sources Dedicated to Rail Funding

Individual state rail programs have generally grown and become more diversified over time. In addition to branch line/short line preservation or improvement, some state programs have expanded to address freight capacity constraint and clearance restrictions on major rail lines, and improved facilities and related highway access necessary to meet the rapidly expanding rail intermodal market.

State rail programs have also been established to initiate and/or expand state-subsidized rail intercity passenger corridor services, develop high speed rail passenger initiatives, and participate in economic development initiatives through investments resulting in improved rail freight and passenger access or efficiency.

The following is a description of state funding programs used or available to Illinois for rail system improvements.

1.5.2 Illinois Rail Freight Program

The Illinois Rail Freight Program (RFP) was established in the General Assembly's Illinois Administrative Code, (Title 82, Chapter 1, and Part 800) in 1983 to facilitate government investments in rail service that provide for statewide economic development. The program provides low-interest loans, and grants in some cases, to finance rail improvements that have the potential to provide job creation and retention, improve access to markets, and maintain transportation cost savings. The program targets projects where state participation leverages private investment and that fosters permanent solutions to rail service problems. Projects are evaluated through a benefit/cost analysis.

Funding for the program is provided through two revolving loan funds – the Rail Freight Loan Repayment Fund, which utilizes federal funds from the former Local Rail Freight Assistance Program (LRFA), and the State Loan Repayment Fund, which utilizes state funds from past General Revenue Appropriations. In FY 2016, a total of $3.2 million was provided for the Rail Freight Program.

1.5.3 Illinois Rail Passenger Program

Illinois not only supports a national passenger railroad system that serves Illinois residents, but also is an integral part of a balanced transportation system. The Rail Passenger Program has three components – operating support, marketing and capital investments.

Since 1971, Illinois' rail passenger program has funded additional trains to supplement the basic train service Amtrak provides for Illinois riders. It funds several additional round trips for service within the Chicago-Quincy, Chicago-St. Louis and Chicago-Carbondale Corridors and provides a 25 percent contribution to the cost of providing additional round trips between Chicago and Milwaukee, Wisconsin. The state-sponsored trains enhance mobility and expand access to the regional and national transportation systems, which is particularly important for residents in Illinois communities with limited intercity travel alternatives. The FY 2016-2021 rail passenger program has $540 million proposed for maintenance, safety repairs and other capital improvements.

1.5.4 Illinois Grade Crossing Protection Fund

The Illinois General Assembly created the Grade Crossing Protection Fund (GCPF) to help local jurisdictions (counties, townships and municipalities) pay for safety improvements at highway-

railroad crossings on local roads and streets. (Grade Crossing Protection Fund recipients cannot use this fund for safety improvements at highway-rail crossings located on state roads or highways.) Although the General Assembly appropriated this fund to IDOT, the Illinois Commerce Commission administers it. The General Assembly uses state motor fuel tax receipts to provide approximately $27 million annually to the Grade Crossing Protection Fund.

1.5.5 Illinois Public Transportation Program

The Illinois Public Transportation Program significantly impacts public transportation infrastructure and operations throughout the state. The FY 2016-2021 Proposed Transit Improvement Program is approximately $8.1 billion. This program provides approximately $3.2 billion in federal funds, more than $3.5 billion in state funds and nearly $1.4 billion in local funds. This amount of programmed funding, however, falls short of operational and capital needs.

The state issues Transportation Series B Bonds as the primary state funding source for implementing public transportation capital improvement projects. It also provides state capital assistance to transit operators and municipalities throughout Illinois. These bonds match federal, state and local capital funds. The estimated FY2016 appropriation (in millions) is $1,334.1 statewide ($1,085.4 in Northeastern Illinois and $248.7 in Downstate Illinois).

1.5.6 Illinois Transportation Regulatory Fund

Illinois Commercial Transportation Law Section 18C-1601 establishes and sets safety requirements for track, facilities and equipment belonging to rail carriers within Illinois. It also gives the Illinois Interstate Commerce Commission jurisdiction to administer and enforce these requirements.

The Illinois Interstate Commerce Commission is responsible for collecting revenues related to fees, taxes and other sources and for spending these funds to implement the state's regulatory responsibilities involving motor and rail carriers of property. The commission uses these funds to implement the state's Railroad Safety Program, including staff work related to designing, installing and maintaining grade crossing signal systems and grade separations; investigating crossing collisions and incidents; and conducting inspections to determine railroads' compliance with federal track regulations and standards pertaining to track, operating practices and hazardous materials handling standards. In Fiscal Year 2016, revenues totaled approximately $5.2 million for rail.[26]

1.6 Recent Investments/Initiatives in the Illinois Rail System

The U.S. Department of Transportation created capital assistance programs that had states partner with it to improve intercity passenger rail services. In 2009, it established the High-Speed Intercity Passenger Rail Program to build high-speed and intercity passenger rail to connect communities across this country.

IDOT and other state partners also applied for federal grant funds under the Passenger Rail Investment and Improvement Act of 2008 (PRIIA) and the American Recovery and Reinvestment Act (ARRA). The Passenger Rail Investment and Improvement Act of 2008 authorized capital assistance funding to states for intercity passenger rail service. Recent rail investments and initiatives to existing services are discussed below.

[26] https://www.icc.illinois.gov/reports/report.aspx?rt=18

1.6.1 Chicago – St. Louis High Speed Rail Corridor

The Chicago-St. Louis High-Speed Rail Corridor is an existing Amtrak corridor with several Amtrak routes. This corridor will allow Amtrak's *Lincoln Service* trains to run between Chicago and St. Louis, Missouri, at 110 mph. Trains began running at 110 mph between Dwight and Pontiac in November, 2012. Upgrades to this corridor are expected to reduce approximately one hour from the current travel time. Reduced travel time, increased service reliability and enhanced safety will attract travelers from automobile and air travel to new or improved rail transportation.

This corridor's improvements have cost $1.95 billion, of which $1.5 billion are federal funds (primarily High-Speed Intercity Passenger Rail (HSIPR) program funds).

The entire 284-mile route from Chicago to St. Louis will feature eight stations, including new stations in Dwight, Pontiac, Carlinville and Alton. Work conducted from 2015–2017 has concentrated on constructing sidings, installing positive train control (PTC) throughout the corridor, improving existing bridges and structures, installing new roadway surfaces, rehabilitating stations, and improving at-grade rail crossings. Construction is scheduled to be largely complete in 2017 (with some activities continuing into 2018).

1.6.2 Chicago – Milwaukee Corridor

The Chicago-Milwaukee Corridor is an existing Amtrak corridor on which two Amtrak routes operate. The *Hiawatha Service* runs seven round trips daily and the *Empire Builder* runs twice daily. (These routes are described further in Chapter 3.)

The Wisconsin Department of Transportation (WisDOT) and IDOT, in coordination with the Federal Railroad Administration (FRA), are completing an Environmental Assessment (EA) and Service Development Plan (SDP) to study increasing the Amtrak *Hiawatha Service* from seven to 10 round trips daily between Chicago and Milwaukee, Wisconsin. Other planned improvements to this corridor include potentially faster travel times between Chicago and Milwaukee and a possible increase in train speed from 79 mph to 90 mph (between Rondout, Illinois, and the General Mitchell International Airport in Milwaukee, Wisconsin).

A Draft Environmental Assessment of the Chicago-Milwaukee Intercity Passenger Rail program was made available for public comment in the fall of 2016. The comment period was closed in January 2017. All agency and public comments will be incorporated into the Final Environmental Assessment, which will be released later in 2017.

1.6.3 Chicago-Detroit/Pontiac Corridor

The Federal Railroad Administration (FRA), in partnership with the Michigan Department of Transportation (MDOT), Indiana Department of Transportation (INDOT) and the Illinois Department of Transportation (IDOT) initiated a study to evaluate passenger rail improvements for the Chicago-Detroit/Pontiac Corridor. The inability of existing passenger rail service and other transportation modes to adequately meet this corridor's current and future mobility needs prompted this study.

In August 2011, the Federal Railroad Administration selected the Michigan Department of Transportation and its state partners for a $3.2 million federal grant from its High-Speed Intercity Passenger Rail (HSIPR) Program to complete planning and environmental studies for the corridor. The Michigan Department of Transportation and its state partners provided the required 20 percent matching funds in the amount of $800,000 for a total program cost of $4 million.

The draft Environmental Impact Statement (EIS) is nearing completion. Approval from the Federal Rail Administration is expected in summer 2017, and a Service Outcome Agreement should be completed by December 2017.

1.6.4 75th Street Corridor Improvement Project

The 75th Street Corridor Improvement Project (CIP) is the largest project in the Chicago Region Environmental and Transportation Efficiency (CREATE) program. The purpose of this project is to improve mobility for rail passengers, freight and motorists. CREATE's 75th Street CIP and Argo Connections project comprise five inter-related infrastructure improvements that are central, both geographically and functionally, to reducing rail and highway delays and expanding freight, commuter, and passenger railroad capacity in the Chicago region. This project will eliminate the most congested rail chokepoint in the region, where 30 Metra and 90 freight trains per day cross each other's paths.

IDOT and FHWA signed the Final EIS in 2014. FHWA issued Phase I design approval for the 75th Street CIP in February 2015. IDOT and its partners are currently pursuing funding to complete Phase II (final) design and initiate Phase III (construction) of the 75th Street CIP. IDOT applied for a competitive federal grant program established by the U.S. Department of Transportation. The Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE) grant application was submitted in December 2016 and is intended to close the funding gap and allow this important project to move forward; however, Illinois was not awarded the grant.

On November 2, 2017 the CREATE Program partners (The Illinois Department of Transportation (IDOT), Cook County, Chicago DOT, the region's freight railroads, Metra and Amtrak) submitted an Infrastructure for Rebuilding America (INFRA) grant application to the U.S. Department of Transportation on behalf of the 75th Street CIP. The grant application comprises the next critical path elements in completion of the overall CREATE Program. The federal funds sought in the INFRA funding application are only one-third of the total costs for the project and will close the funding gap to allow projects to quickly proceed to construction, ensuring that the nation's transportation and logistics network can efficiently and cost-effectively move products to market. The INFRA grant(s) will be announced in spring, 2018.

1.6.5 Metra Infrastructure Investment Program

Chicago's Metra and its railroad partners announced plans to begin $216 million work of infrastructure investments in 2017.

Improvements are planned for 29 of Metra's 241 stations, 21 bridges and 29 road crossings.[27] The program's major improvements include replacing aging bridges on the Union Pacific (UP) North and Milwaukee West lines and constructing new track segments along the UP-West Line.

The 2017 construction program also includes smaller projects distributed across Metra's 11 lines. These include station upgrades ranging from installing air conditioning at the Lisle station to constructing a new station in Romeoville. Metra and its partners also plan to replace 57,000 railroad ties and improve the signal system. With the federally mandated implementation of positive train

[27] https://metrarail.com/about-metra/newsroom/metra-launches-2017-construction-program

control (PTC), Metra crews are upgrading signal and communications systems on each of the lines it controls for compatibility PTC.

1.7 Summary of Freight and Passenger Rail Services in Illinois

The rail system in Illinois is privately owned and maintained, stimulating local, state, regional and national economic activity by providing safe, efficient, low-cost and environmentally friendly transportation services. Illinois is the center of the nation's rail network, and Chicago represents the largest U.S. rail hub in North America. Another major rail center for Illinois and the Midwest is located in East St. Louis.

The Illinois rail system is comprised of 46 railroads including seven Class I railroads, three regional railroads, 13 short line railroads, and 23 switching and terminal railroads. According to the American Association of Railroads (AAR), Illinois' comprehensive rail network consists of approximately 7,119 miles of railroad track – 5,813 of which are owned by Class I railroads, primarily the Burlington Northern Santa Fe (BNSF) Railway and the Union Pacific (UP) Railroad. The remaining miles of track are operated by Class II or regional railroads, Class III or short line railroads, and selected passenger or privately owned freight rail operations. They range in size from a short one-mile interstate carrier to larger railroads extending from Illinois to the West and East Coasts, Gulf of Mexico, Canada and Mexico. A detailed description of the Illinois rail freight and passenger network are provided in Chapter 2.

Passenger rail in Illinois is comprised of intercity, commuter rail and light and heavy rail transit. Intercity passenger rail service is provided by Amtrak as part of its national network. Traveling by Amtrak is convenient and affordable, and offers an alternative to personal vehicle travel and air travel between regions and cities in Illinois. Illinois has been a strong supporter of intercity rail service in several corridors for many years. IDOT, MPOs, and service operators and providers have also been active in planning efforts for passenger rail service for decades.

Currently, Amtrak serves Illinois with 56 daily trains, eight long-distance trains and eight state-supported corridor services. IDOT currently fully supports Amtrak service along three corridors: Chicago-Quincy, St. Louis and Carbondale. Additionally, IDOT and the Wisconsin Department of Transportation jointly support service between Chicago and Milwaukee, WI. These four routes provide passenger rail service to 34 communities in Illinois, Wisconsin and Missouri on 30 trains per day, making Illinois a national leader in providing passenger rail service for the traveling public in the state.

A detailed description of all Illinois' proposed passenger and freight rail improvements and planning efforts are provided in Chapters 3 and 4 respectively.

Chapter 2: Existing Commuter, Passenger and Freight Rail Conditions in Illinois

This chapter provides an overview of commuter rail, intercity passenger rail (Amtrak), and freight rail within Illinois, along with information on system performance and passenger rail intermodal connections. A performance evaluation of intercity passenger services under PRIIA Section 207 is also included, along with a statement of public financing for rail projects and service in Illinois. Ongoing programs and projects intended to improve the safety and security of rail transportation are also detailed. Finally, a general analysis of the economic and environmental impacts of rail transportation in Illinois is provided.

2.1 The State's Existing Rail System: Description and Inventory

2.1.1 Existing Freight, Intercity Passenger and Commuter Rail Transportation System

Freight Rail

Illinois's freight rail system is comprised of 46 railroads,[28] including seven Class I railroads, three regional railroads, 13 short line railroads, and 23 switching and terminal carriers. Class I railroads are defined by the Federal Surface Transportation Board (STB) as having more than $457.9 million of annual carrier operating revenue. They primarily operate long-haul service over high-density intercity traffic lanes.

Class II and regional railroads are railroads of similar size with slightly different definitions. Class II railroads are defined by STB as having annual revenue between $36.6 million and $475.7 million. Regional railroads are defined by the Association of American Railroads as operating at least 350 miles of track and/or having revenue of at least $40 million.

Class III, or short line, railroads have annual revenue of less than $36.6 million per year. Terminal, or switching, railroads are a subcategory of Class III railroads that provide pick-up and delivery service within a specified area. The map below shows the Illinois freight rail network.

Following the map is a profile of the freight railroads operating within Illinois and their principal line segments. The descriptions focus on the location of the rail lines, the lines' physical and operational characteristics, railroad facilities located on the line, and other information available from public sources.

[28] https://www.aar.org/ accessed on 23rd June 23, 2017

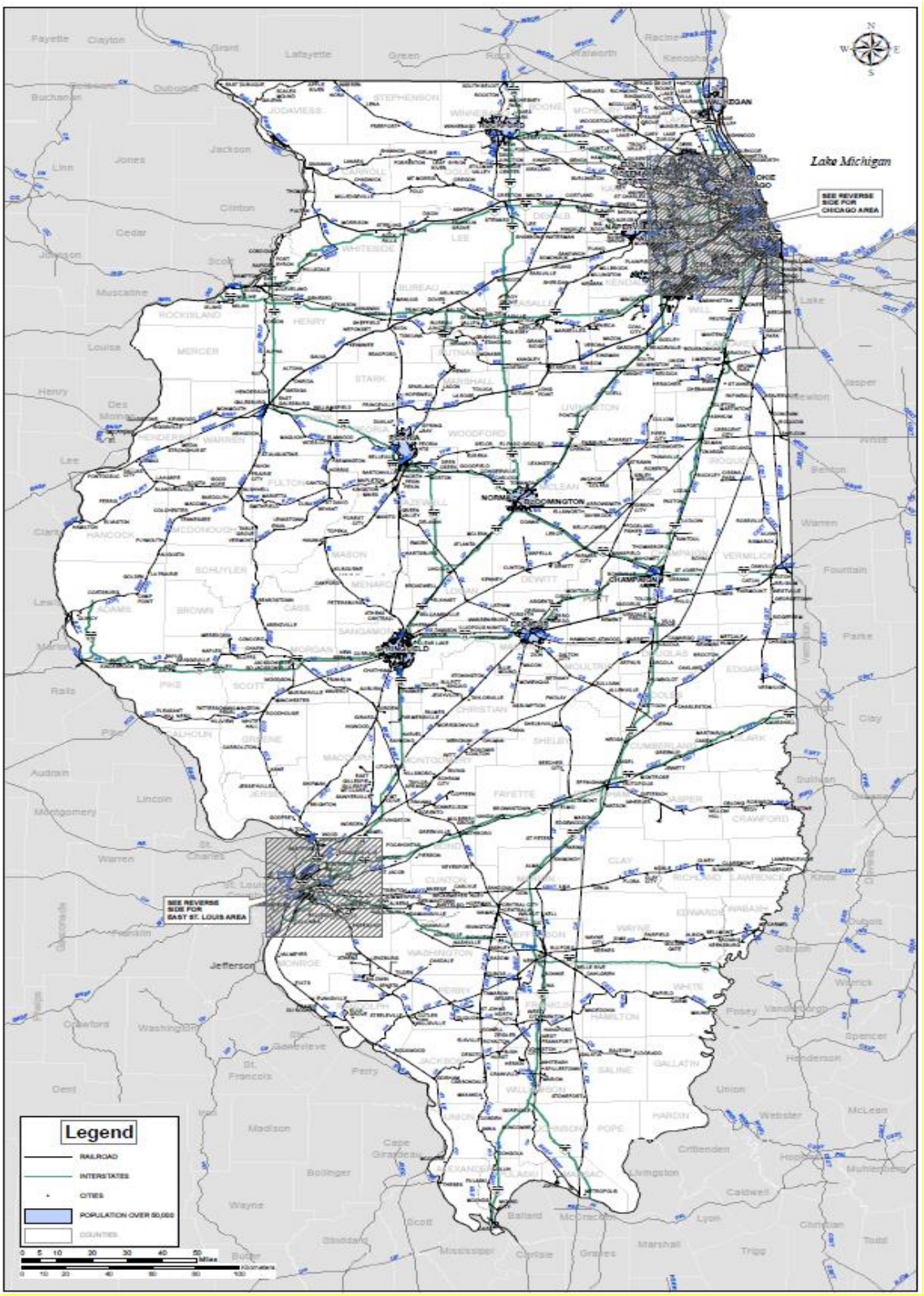

Figure 2.1.1 Illinois Freight Rail Network (Source: IDOT)

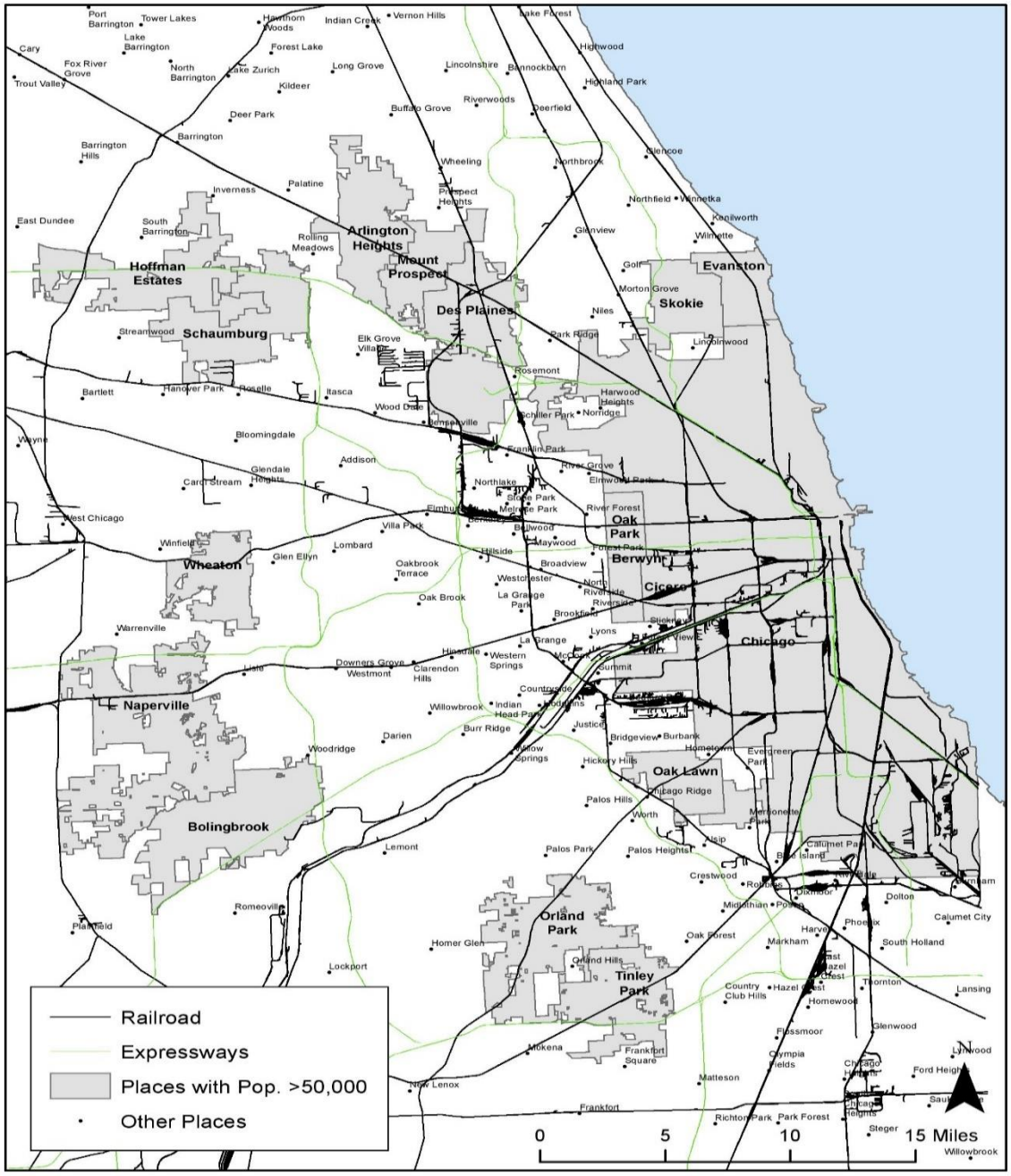

Figure 2.1.2 Chicago Area Railroad Map[29]

[29] http://www.idot.illinois.gov/assets/uploads/files/transportation-system/maps-&-charts/railroad-maps/chicagobackside.pdf

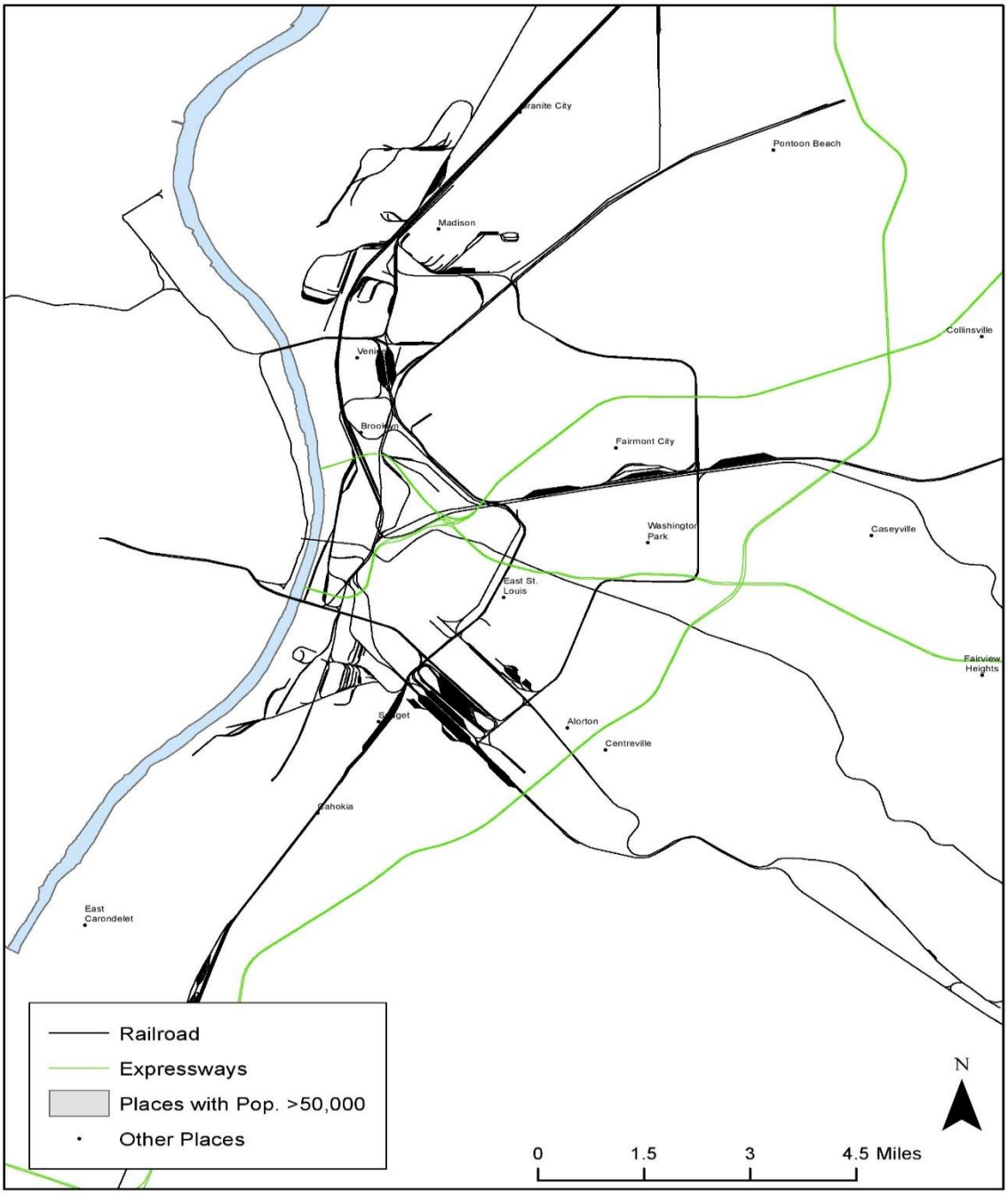

Figure 2.1.3 East St. Louis Area Railroad Map[30]

[30] http://www.idot.illinois.gov/assets/uploads/files/transportation-system/maps-&-charts/railroad-maps/chicagobackside.pdf

Class I Railroads

Below, a short summary of each of the Class I railroads' major rail lines in the state is provided. These descriptions provide the rail lines' name and endpoints as designated by the railroad, the predecessor railroad name, total length and the number of miles within Illinois, trackage rights granted to other railroads, connections with other carriers, operating speeds, signal systems and any other information pertinent to the rail line.

Most Class I railroad operations are controlled by automatic signal systems. The two most common systems are Centralized Traffic Control (CTC) and Automatic Block Signaling (ABS). CTC is commonly found on high- or medium-density lines. CTC is a series of electronic switches, or interlockings, that are designed so that conflicting train movements cannot be authorized. A train dispatcher remotely controls signals and powered switches, generally over a long section of railroad. Train operators observe the controlled signals to authorize train movements.

ABS consists of a series of signals that govern blocks of track between signals. Under ABS, signals are automatically activated by the condition of the block beyond the signal, providing restrictive signal aspects to move between blocks so that safe braking distances are ensured if two trains attempt to enter the same block.

Rail lines without automatic signal systems are operated by Track Warrant Control (TWC). TWC is used primarily on medium- and low-density lines. TWC provides for a train dispatcher to verbally instruct the train to proceed, usually via radio. The dispatcher designates the stations or mileposts between which the train may move.

Information on Class I railroads operating in Illinois is provided below.

Burlington Northern Santa Fe (BNSF)

The BNSF Railway is a subsidiary of Berkshire Hathaway Inc., and is the result of a merger between the Burlington Northern Railway and the Atchison, Topeka, and Santa Fe Railway. It is the second-largest freight network in North America, spanning over 24,000 miles of track, with trackage rights over an additional 8,000 miles.

BNSF Subdivisions serving Illinois are shown in the following map and summarized below.

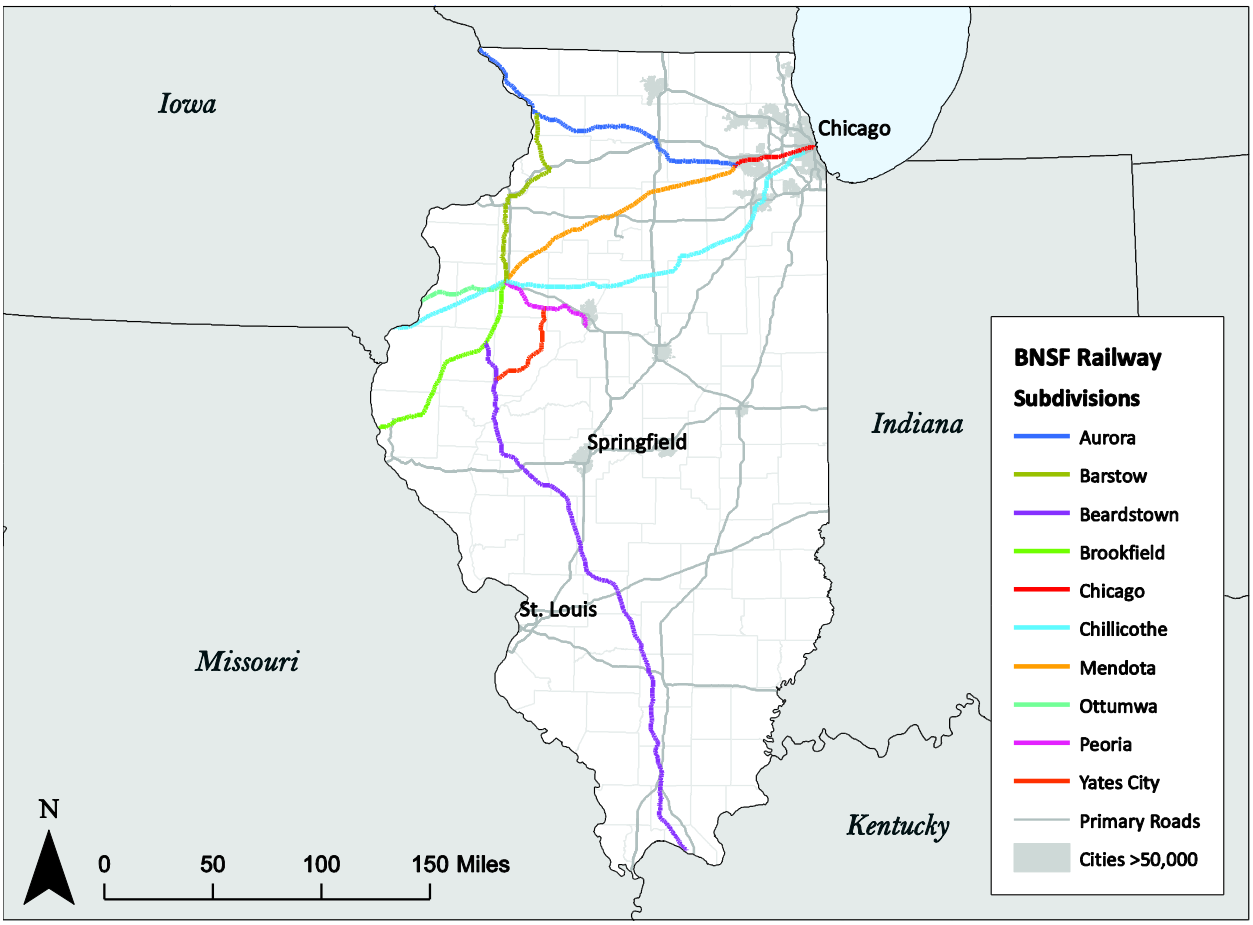

Figure 2.1.4 BNSF Rail Network

Aurora Subdivision[31]: This former Burlington Northern line extends a total of 261.8 miles between Aurora and North LaCrosse, Wisconsin. Within Illinois the line extends a total of 147.8 miles between Aurora and the Illinois/Wisconsin border. The line connects with BNSF's Mendota Subdivision at Aurora and its Barstow Subdivision at Plum. It also connects with UP at BX Crossing and Rochelle; with CN at Portage and East Dubuque; with the Illinois RailNet at Flagg Center; with CP at Savannah Crossing; and with the Riverport Railroad at Whitton. Freight yards on the line are located at Rochelle and Savannah. This single-track line has maximum speeds of 60 mph with train operations controlled by CTC.

Barstow Subdivision: This former Burlington Northern line extends a total of 95.7 miles between Galesburg and Plum River. The line connects with the Iowa Interstate Railroad at Colona. The Galesburg Yard serves operations on this line. Maximum freight speeds on the line are 60 mph. Train operations are controlled by CTC.

Beardstown Subdivision: This former Burlington Northern line extends from West Bushnell to Padukah, Kentucky, a total of 296.5 miles. Within Illinois it extends 284.9 miles between Bushnell and the Illinois/Kentucky border. BNSF's Centralia Yard is located on the line. This line connects with

[31] Subdivision information for this and other Class I railroads has been temporarily transferred from the 2012 State Rail Plan and will be verified to ensure that all information is up-to-date.

UP at Girard, Toland and Waltonville; with NS at Jacksonville, Winston and Centralia; with CSX at Smithboro and Shattuc; with CN at Centralia Burlington Junction; with the Paducah & Illinois RR at Burlington Junction; and with the Evansville & Western RR at Woodlawn. BNSF's Yates City Branch also connects to the line at Vermont. UP has trackage rights over the line between Nielson Junction and Vienna Junction and CN has trackage rights over the line between Joppa Junction and Burlington Junction. Maximum freight speeds over this single-track line are 49 mph. Train operations are conducted by TWC.

Brookfield Subdivision: This former Burlington Northern line extends a total of 311.5 miles between Galesburg and Birmingham, Missouri. Within Illinois the line extends a total of 101 miles between Galesburg and West Quincy. The line connects to BNSF's Beardstown Subdivision and with the Toledo, Peoria & Western Railway at Bushnell. UP and Amtrak have trackage rights over the line through Galesburg. The Galesburg Yard serves operations on this line. Maximum speeds on the line are 60 mph for freight trains and 79 mph for passenger trains. Train operations are controlled by CTC.

Chicago Subdivision: This former Burlington Northern line extends a total of 41 miles between Chicago's Union Station and Montgomery. The line connects with BNSF's Aurora and Mendota Subdivisions at Aurora, CN at Eola, Indiana Harbor Belt RR at Congress Park, and the Central Illinois Railway at Western Avenue in Chicago. BNSF facilities located on this line include Eola Yard, Congress Park Yard, the Clyde Diesel Shop and Cicero Yard. UP, Metra and Amtrak have trackage rights over the line. Maximum allowable speeds on the line are 50 mph for freight and 70 mph for passenger trains. Train operations over this primarily three-track line are controlled by CTC.

Chillicothe Subdivision: This former Santa Fe line extends a total of 228.4 miles between Corwith and Ft. Madison, Missouri. A total of 225.9 miles lie within Illinois. The line connects with BNSF's Ottumwa Subdivision at Cameron Junction and with CN at Lawndale, NS at Streator, Indiana Harbor Belt at McCook Crossing and Keokuk Junction Railway at Iowa Junction. UP, CSX, NS and KJRY have trackage rights over various portions of the line. Amtrak has trackage rights between Cameron Junction and Ft. Madison and within the Joliet area. BNSF yard facilities on the line include Corwith Yard, Willow Springs Yard, Streator Yard and Chillicothe Yard. This double-track line has maximum speeds of 55 mph for freight trains and 79 mph for passenger trains. Train operations are controlled by CTC.

La Salle Subdivision: This former Illinois Central Gulf line extends a total of 18.4 miles between La Salle and Zearing. It connects to CSX at Peru Crossing and with BNSF's Mendota Subdivision at Zearing. Maximum freight speeds are limited to 10 mph and maximum car weights are limited to 263,000 pounds. Train operations are controlled by TWC.

Mendota Subdivision: This former Burlington Northern line extends a total of 121.4 miles between Montgomery and Galesburg. The line connects to UP at Earlville, Illinois RailNet at Montgomery and BNSF's La Salle Subdivision at Zearing. UP and Amtrak have trackage rights over the line. The Galesburg Yard serves operations on this line. Maximum operating speeds on the line are 60 mph for freight trains and 79 mph for passenger trains. Train operations are controlled by CTC.

Ottumwa Subdivision: This former Burlington Northern line extends a total of 230.5 miles between Galesburg and Creston, Iowa. A total of 42.2 miles lie within Illinois. Amtrak has trackage rights over the line. BNSF's Chillicothe Subdivision connects to the line at Cameron Junction. The Galesburg Yard serves operations on the line. Maximum train speeds over the single-track line are 60 mph for freight trains and 79 mph for passenger trains. Train operations are controlled by CTC.

Peoria Subdivision: This former Burlington Northern line extends a total of 52.3 miles between Peoria and Galesburg. The line connects to BNSF's Yates City Branch at Yates City and the Iowa Interstate RR and UP at Peoria. The Toledo Peoria & Western Railway has trackage rights over the line. BNSF's Peoria and Galesburg Yards serve the line. Maximum train speeds are 40 mph with train operations controlled by TWC.

Yates City Subdivision: This line extends 46.2 miles from Yates City to Vermont, Illinois. The line connects to BNSF's Peoria branch at Yates City; UP at Farmington; SFLR at Canton; and BNSF's Beardstown branch at Vermont.

Canadian National (CN)

CN operates primarily in Canada but does serve several major U.S. markets through its acquisitions of the Grand Trunk Western Railroad in 1923; the Illinois Central Railroad in 1999; the Wisconsin Central Ltd. in 2001; and the Elgin, Joliet and Eastern Railway in 2009. "CN" refers to the collective subsidiary operating properties of the Canadian National Railway Company. Canadian National itself does not operate in the U.S.

CN Subdivisions serving Illinois are shown in the following map and summarized below.

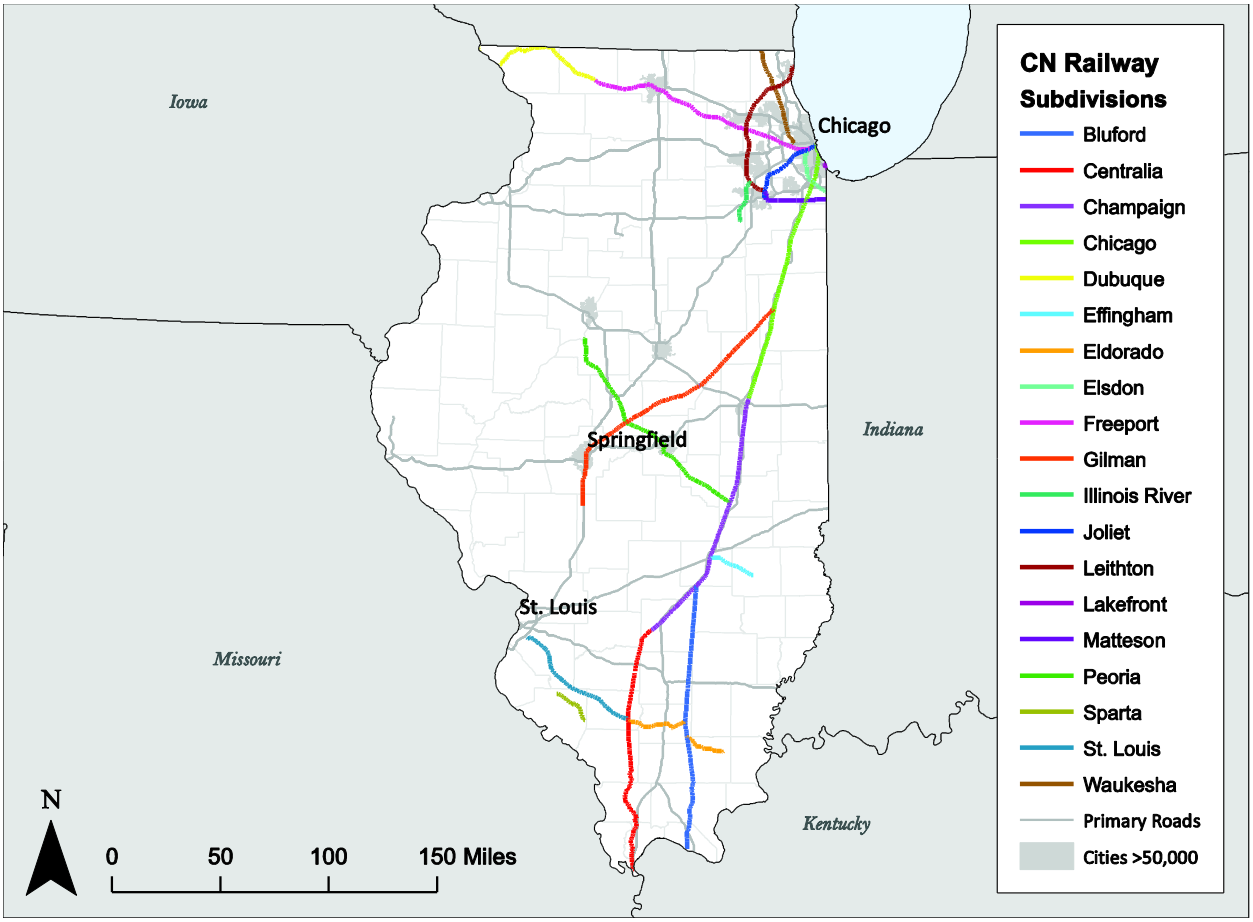

Figure 2.1.5 CN Rail Network

Bluford Subdivision: This Illinois Central2 line extends from the junction of CN's Champaign Subdivision at Edgewood Junction to Maxon, Kentucky. Approximately 122 miles of the line lie within Illinois. Customers on the line are served from CN's Bluford Yard. The line connects with CN's St. Louis Subdivision at Akin Junction, CN's Eldorado Subdivision at Ferber, and BNSF at Anson. The line is single track with maximum speeds of 60 mph. Train operations are controlled by CTC.

Centralia Subdivision: This Illinois Central line extends a total of 55.7 miles from the end of the Champaign Subdivision at Centralia to Carbondale. Both Amtrak and NS have trackage rights over the line. The line connects with BNSF and NS at Centralia, the Evansville & Western Railroad at Ashley, UP at Tamaroa, and CN's Bluford Subdivision at Eldorado Junction. The line is single track with maximum speeds of 79 mph for passenger and 60 mph for freight trains. Train operations are controlled by CTC.

Champaign Subdivision: This Illinois Central line extends a total of 124.6 miles from its connection with the Chicago Subdivision at Champaign to Centralia, where it continues as the Centralia Subdivision. Amtrak has trackage rights over the entire length of the line. The line is served by CN yards located at Mattoon, Edgewood Junction and Centralia. This line connects with NS at Tolono, UP and CSX at Tuscola, the CN Peoria Subdivision at Mattoon, the Eastern Illinois Railroad at Neoga, CN's Effingham Subdivision and CSX at Effingham, the CN Edgewood Subdivision at Edgewood Junction, UP at Kinmundy, and CSX at Odin. The line is single track with a maximum speed of 79 mph. Train operations are controlled by CTC.

Chicago Subdivision: This Illinois Central line extends a total of 123.4 miles between Bridgeport Yard in Chicago to Champaign. Amtrak has trackage rights over the entire line and NS has trackage rights between Fordham and Gilman. CN's Markham Yard, near Homewood, is located on this line. This line connects with UP at 31st Street; the Belt Railroad of Chicago at 95th Street; CN's Gilman Subdivision at Harvey; CN's Matteson Subdivision at Matteson; NS at Fordham; CN's Gilman Subdivision at Gilman; and NS and the Kankakee, Beaverville & Southern Railroad at Kankakee. The line continues as the Champaign Subdivision south of Champaign. The line is double track between Bridgeport and Stuenkel and single track south of Stuenkel. Maximum speeds are 79 mph and train operations are controlled by CTC.

Dubuque Subdivision: This Illinois Central line extends a total of 67.6 miles between the Freeport Subdivision at Freeport to Dubuque, Iowa. Approximately 66.8 miles of the line are within Illinois. CN's Wallace Yard is located on the line. The line connects with BNSF at Portage and BNSF has trackage rights over the line between Portage and Dubuque. The line is single track with maximum train speeds of 50 mph and operations are controlled by CTC.

Effingham Subdivision: This Illinois Central line extends 23.9 miles from its junction with the Champaign Subdivision at Effingham to its connection with the Indiana Rail Road at INRD Junction. This line primarily serves the Central Illinois Public Service Company's Newton Power Plant. The line is single track with maximum train speeds of 40 mph and operations are controlled by TWC.

Eldorado Subdivision: This Illinois Central line extends 18.6 miles from its junction with the Bluford Subdivision at Ferber to Eldorado. The line is single track with maximum train speeds of 40 mph and operations are controlled by TWC.

Elsdon Subdivision: This Grand Trunk Western line extends a total of 29.2 miles from CN's Railport Yard in Chicago to Griffith, Indiana. Approximately 23.7 miles lie within Illinois. In addition to the Railport Yard, the line also provides access to CN's Markham Yard. CSX has trackage rights over the line east of Harvey, and Amtrak operates over the line east of Thornton Junction. The line connects

with CSX and the Indiana Harbor Belt Railroad at Blue Island Junction, CN's Chicago Subdivision and CSX at Harvey, and with UP at Thornton Junction. This line is primarily double track with authorized speeds of 55 mph. Train operations are controlled by CTC.

Freeport Subdivision: This Illinois Central line extends a total of 113.5 miles between 16th Street in Chicago to Freeport, where the line continues as the Dubuque Subdivision. CN's Hawthorn and Rockford Yards are located on the line. This line connects with CN's Chicago Subdivision at Bridgeport, the Indiana Harbor Belt Railroad at Broadview, CN's Leithton Subdivision at Munger, and the Illinois RailNet and CP at IR Crossing near Rockford. Maximum operating speeds are 50 mph. The line is double track east of Broadview with operations controlled by CTC. West of Broadview, the line is single track with train operations controlled by TWC.

Gilman Subdivision: This Illinois Central line extends a total of 136.4 miles between Gilman, where it connects to CN's Chicago Subdivision, to Farmersville. NS has trackage rights on this line between Gilman and Gibson City and the Illinois & Midland Railroad has trackage rights between Springfield and Cimic. CN yards on the line are located at Clinton and Springfield. This line connects with NS at Gibson City, CN's Peoria Subdivision at Mt. Pulaski, UP at Springfield, and the Illinois & Midland Railroad at Springfield and Cimic. The line is single track with maximum train speeds of 60 mph and operations controlled by CTC and TWC.

Illinois River Subdivision: This former Elgin, Joliet & Eastern Railway line extends a total of 20.2 miles between Walker, where it connects to CN's Leithton Subdivision, and the end of the line at Goose Lake. The line is single track with maximum train speeds of 25 mph and operations are controlled by TWC.

Joliet Subdivision: This Illinois Central line extends a total of 41 miles between Chicago's Union Station to Plaines, south of Joliet. UP, Amtrak and Metra have trackage rights over the line. CN yards are located at Bridgeport and Glenn on the line and access is also available to CN's East Joliet Yard. This line connects with CN's Chicago and Freeport Subdivision at Bridgeport, CSX and NS at Brighton, BNSF at Corwith, the Belt Railway of Chicago at Lemoyne, the Indiana Harbor Belt Railroad at CP Canal, and UP at Plaines. The line is double track with maximum speeds of 79 mph. Train operations are controlled by CTC.

Lakefront Subdivision: This former Elgin, Joliet & Eastern Railway line extends a total of 12.2 miles from CN's South Chicago Yard to Kirk Yard in Gary, Indiana. Approximately 2.5 miles lie within Illinois. The line connects with the Belt Railway of Chicago at South Chicago. The line is single track with trains operations controlled by TWC.

Leithton Subdivision: This former Elgin, Joliet & Eastern Railway line extends a total of 72 miles between Waukegan and CN's East Joliet Yard. The line connects with UP at Upton, Barrington and West Chicago; with CP at Rondout and Spaulding; with BNSF Railway at Eola; and with CN's Waukesha Subdivision at Leithton, Freeport Subdivision at Munger, and Illinois River Subdivision at Walker. The line is single track with maximum train speeds of 45 mph with operations controlled by CTC, except for the segment between Waukegan and Leithton, which is controlled by TWC.

Matteson Subdivision: This former Elgin, Joliet & Eastern Railway lines extends a total of 45.4 miles between CN's East Joliet Yard and CN's Kirk Yard in Gary, Indiana. Approximately 30 miles lie within Illinois. This line connects with CSX at East Joliet, CN's Chicago Subdivision at Matteson, and with UP at Chicago Heights. The line is generally double track with maximum train speeds of 45 mph and operations are controlled by CTC.

Peoria Subdivision: This Illinois Central line extends approximately 113 miles from IC Junction near Peoria to its connection with the Champaign Subdivision at Mattoon. CN's Decatur Yard is located on the line. The line connects with the Illinois & Midland Railroad at Pekin; UP at Athol and Sullivan; CN's Gilman Subdivision at Mt. Pulaski; and NS and CSX at Decatur. The line is single track with maximum train speeds of 40 mph and operations are controlled by TWC.

Sparta Subdivision: This Illinois Central line extends 16.8 miles from Baldwin to Percy. The line connects to UP at Percy and Sparta. The line is single track with maximum train speeds of 25 mph and operations are controlled by TWC.

St. Louis Subdivision: This Illinois Central line extends approximately 55 miles from Church, east of the KCS-CN East St. Louis Yard to the junction with CN's Centralia Subdivision at DuQuoin. The line connects with UP at Coulterville and Pinckneyville. The line is single track with maximum train speeds of 60 mph and operations are controlled by CTC.

Waukesha Subdivision: This Wisconsin Central line extends a total of 147.5 miles from Madison Street in Chicago to Fond du Lac, Wisconsin. A total of 46.4 miles lie within Illinois. Metra has trackage rights over the line within Illinois. CN's Schiller Park Yard is located on the line. This line connects with CSX at Madison Street, CP near Belmont Avenue, UP at Deval, CN's Leithton Subdivision at Leithton, and the Wisconsin & Southern Railroad at Grays Lake. The line is double track with authorized speeds of 60 mph, and train operations are controlled by CTC.

Canadian Pacific (CP)

Canadian Pacific's 14,000-mile network extends from the Port of Vancouver in Western Canada to the Port of Montreal, and to the U.S. industrial centers of Chicago, Newark, Philadelphia, Washington, New York City and Buffalo. CP's rail operations within the U.S. are conducted by its Soo Line and Dakota, Minnesota and Eastern Railroad subsidiaries. CP's rail operations in Illinois are comprised of a combination of lines owned by CP and lines owned by Metra over which CP has trackage rights.

CP Subdivisions serving Illinois are shown in the following map and summarized below.

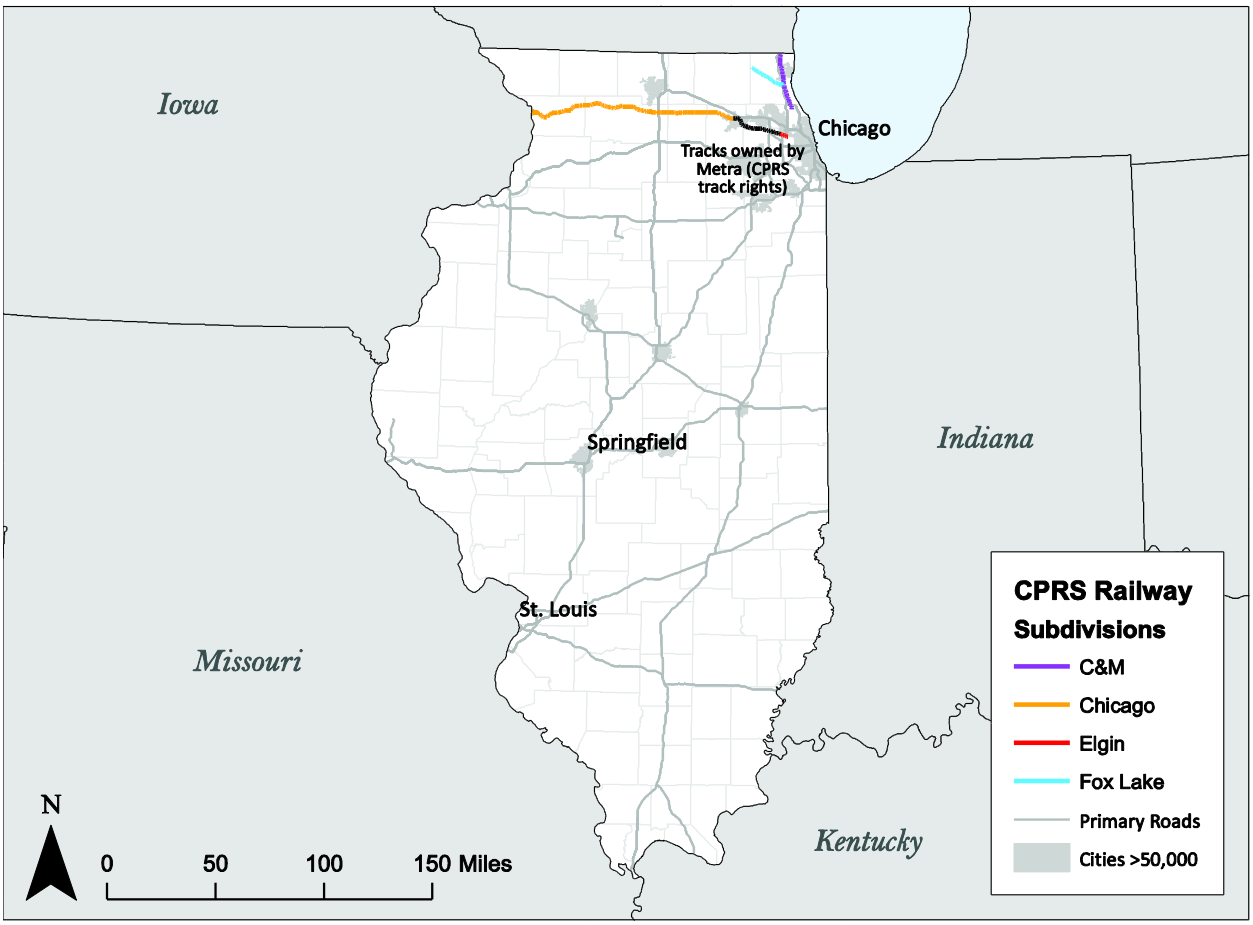

Figure 2.1.6 Canadian Pacific Rail Network

C&M/Fox Lake Subdivision: This former Soo line extends a total of 49.5 miles from Chicago Union Station to Fox Lake. The line is owned by Metra between Rondout and Fox Lake. Amtrak also has trackage rights from Union Station and north through Rondout on the C&M Subdivision. Amtrak does not utilize the Fox Lake Subdivision. The line connects with UP near Northbrook and to CP's C&M Subdivision at Rondout. The line is primarily double track and controlled by CTC between Union Station and Rondout and single track between Rondout and Fox Lake with operations controlled by ABS. Speed limits range from 60 to 79 mph for passenger operations and 50 mph for freight operations.

C&M Subdivision: This line extends a total of 33.2 miles between Rondout and Milwaukee, Wisconsin. Approximately 15 miles lie within Illinois. The line is owned by CP with Amtrak having trackage rights over the entire line. The line connects to CN at Rondout. The line is double track with maximum freight speeds of 60 mph and passenger speeds of 79 mph. Train operations are controlled by CTC.

Davenport Subdivision: This former Iowa, Chicago & Eastern line extends a total of 98.5 miles between Big Timber and Savanna. The line is owned by CP. The line connects to BNSF at Savanna. The line is single track with maximum train speeds of 40 mph and operations controlled by TWC.

Elgin Subdivision: This line extends a total of 40.3 miles from Chicago Union Station to Big Timber. The entire line is owned by Metra with CP operating via trackage rights. The line connects to UP at Western Ave in Chicago, CN and Indiana Harbor Belt near Franklin Park, UP at Bensenville, and with CN at Spaulding. CP yards on the line are located at Galewood and Bensenville. The line is triple track for the first 12 miles from Union Station and double track for the remainder. Train operations are controlled by CTC with maximum speeds of 70 mph for passenger trains and 60 mph for freight trains.

CSX Transportation

CSX Transportation has an extensive rail network that covers 23 states east of the Mississippi River. It serves nearly every major economic and population center in the eastern U.S. and provides connectivity to western U.S. markets at Chicago, St. Louis, Memphis and New Orleans. CSX serves all major Atlantic ports with major intermodal operations connecting the ports of New York, New Jersey, Philadelphia, Baltimore and Norfolk, with Midwest markets.

CSX Subdivisions serving Illinois are shown in the following map and summarized below.

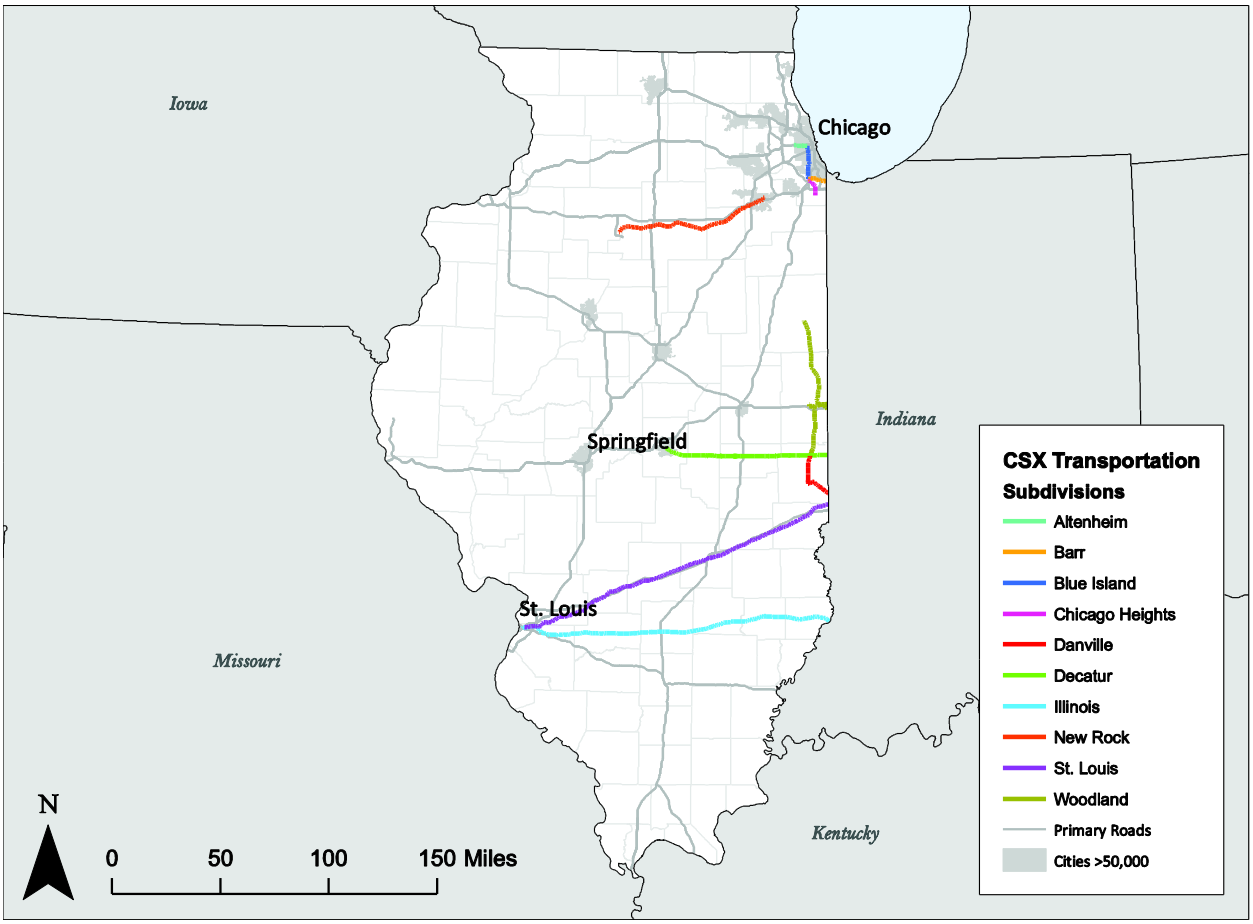

Figure 2.1.7 CSX Transportation Rail Network

Altenheim Subdivision: This former B&O Chicago Terminal line extends 6.9 miles between Rockwell Street and Madison Street within the Chicago Terminal area. CN has trackage rights over a portion of the line. The line also connects to CSX's Cicero Industrial Track and to CN at its western terminus.

The line is primarily double track, although some segments are out of service, with an authorized speed of 10 mph, and train operations are controlled by ABS.

Barr Subdivision: This former B&O Chicago Terminal line extends 26.8 miles from Willow Creek, Indiana, to Blue Island with a total of 9.4 miles within Illinois. CN has trackage rights over this line. The line connects with the Indiana Harbor Belt Railroad at Calumet Park and Cottage Grove, with NS at Calumet Park and Riverdale, with UP at 138th Street, and with CN at Riverdale. CSX's Barr Yard, its major classification yard in the Chicago area, is located at the western end of the line. A connection between Barr Yard and the Indiana Harbor Belt Railroad's Blue Island Yard allows interchange between the two carriers. The line within Illinois is double track with authorized speeds of 30 to 40 mph, and train operations are controlled by CTC.

Blue Island Subdivision: This former B&O Chicago Terminal line extends 14.9 miles between the western terminus of CSX's Barr Subdivision at Barr Yard and the eastern terminus of CSX's Altenheim Subdivision at Rockwell Street. CSX's Forest Hill Yard and 59th Street Intermodal Facility are accessed from this line. The line connects with BNSF at 18th Street and the Belt Railway at 75th Street. The line is double track with authorized speeds of 25 to 40 mph, and train operations are controlled by CTC.

Chicago Heights Subdivision: This former B&O Chicago Terminal line extends a total of eight miles from Harvey Junction near Barr Yard to the end of the line near Glenwood. CSX operates over CN via trackage rights on a portion of the line. The line connects with the Indiana Harbor Belt Railroad at North Harvey. The line is single track with an authorized speed of 10 mph, and train operations are controlled by ABS.

Danville Secondary Subdivision: This former Conrail line extends a total of 41.2 miles from the St. Louis Subdivision near St. Mary's, Indiana, to Vermillion Grove. A total of 33.6 miles lie within Illinois. The line connects with CSX's Decatur Subdivision at Chrisman. The line also provides access to CSX's Midland Yard. The line is single track with an authorized speed of 25 mph and train operations are controlled by TWC.

Decatur Subdivision: This former Chessie line extends a total of 84.3 miles from CSX's CE&D Subdivision at Hillsdale, Indiana, to Decatur. Approximately 76.2 miles lie within Illinois. The line connects with CSX's Danville Secondary Subdivision at Chrisman, the Eastern Illinois Railroad at Metcalf, and the UP and CN at CSX's Tuscola Yard. The line is single track with authorized speeds of 20 to 30 mph. Train operations are controlled by TWC.

Illinois Subdivision: This former B&O Chicago Terminal line extends 159 miles between East St. Louis and Washington, Indiana. A total of 139.3 miles lie within Illinois. The line connects with UP at Salem, with CN at Odin, with BNSF at Shattuc, and ends at CSX's St. Louis Subdivision at its western terminus. The line provides access to CSX's Lawrenceville and Flora Yards and to its North Branch at Flora. The line is single track with a maximum speed of 40 mph. Train operations are controlled by TWC.

New Rock Subdivision: This former Rock Island line extends a total of 86.2 miles between Joliet and Henry. From Joliet eastward, CSX uses trackage rights over Metra to access Barr Yard. The Iowa Interstate Railroad has trackage rights over this subdivision. The line connects with the Illinois RailNet at Ottawa, the Illinois Central Railroad at La Salle, BNSF at Peru and La Salle, and the Iowa Interstate Railroad at East Bureau. The line is single track with authorized speeds between 25 and 40 mph and train operations are controlled by TWC.

St. Louis Subdivision: This former Conrail line extends approximately 224 miles from Indianapolis, Indiana, to East St. Louis. A total of 157 miles lie within Illinois. The line connects with the CN at Effingham, the Vandalia Railroad at Vandalia, BNSF near Smithboro, the CSX Louisville Subdivision at Black Lane Connector, and the CSX Illinois Subdivision and Alton & Southern RR at East St. Louis. The line provides access to CSX's Rose Lake Yard near East St. Louis. The line is primarily single track with maximum speeds of 50 mph for freight and 60 mph for intermodal trains, and train operations are controlled by CTC.

Woodland Subdivision: This line extends a total of 46.3 miles between Woodland Junction and RB Junction near Danville. North of Woodland Junction, CSX has trackage rights over UP north to the Chicago Terminal area to access Barr Yard and the Bedford Park Intermodal facility. CP has trackage rights over this line. The line provides access to CSX's North Danville Yard and Brewer Yard at the eastern terminus of the line. The line also connects with CSX's Danville Industrial Track and with the Kankakee, Beaverville & Southern Railroad at Brewer Yard. The line is single track with authorized speeds of 50 mph for freight and 60 mph for intermodal trains. Train operations are controlled by ABS.

Kansas City Southern (KCS)

The Kansas City Southern (KCS) is a transportation holding company that has railroad investments in the U.S., Mexico and Panama. Its primary U.S. holding is the Kansas City Southern Railway, which operates approximately 3,500 route miles in a ten-state region serving the central and south central U.S. KCS operations in Illinois were acquired from the former Gateway Western Railway.

KCS Subdivisions serving Illinois are shown in the following map and summarized below.

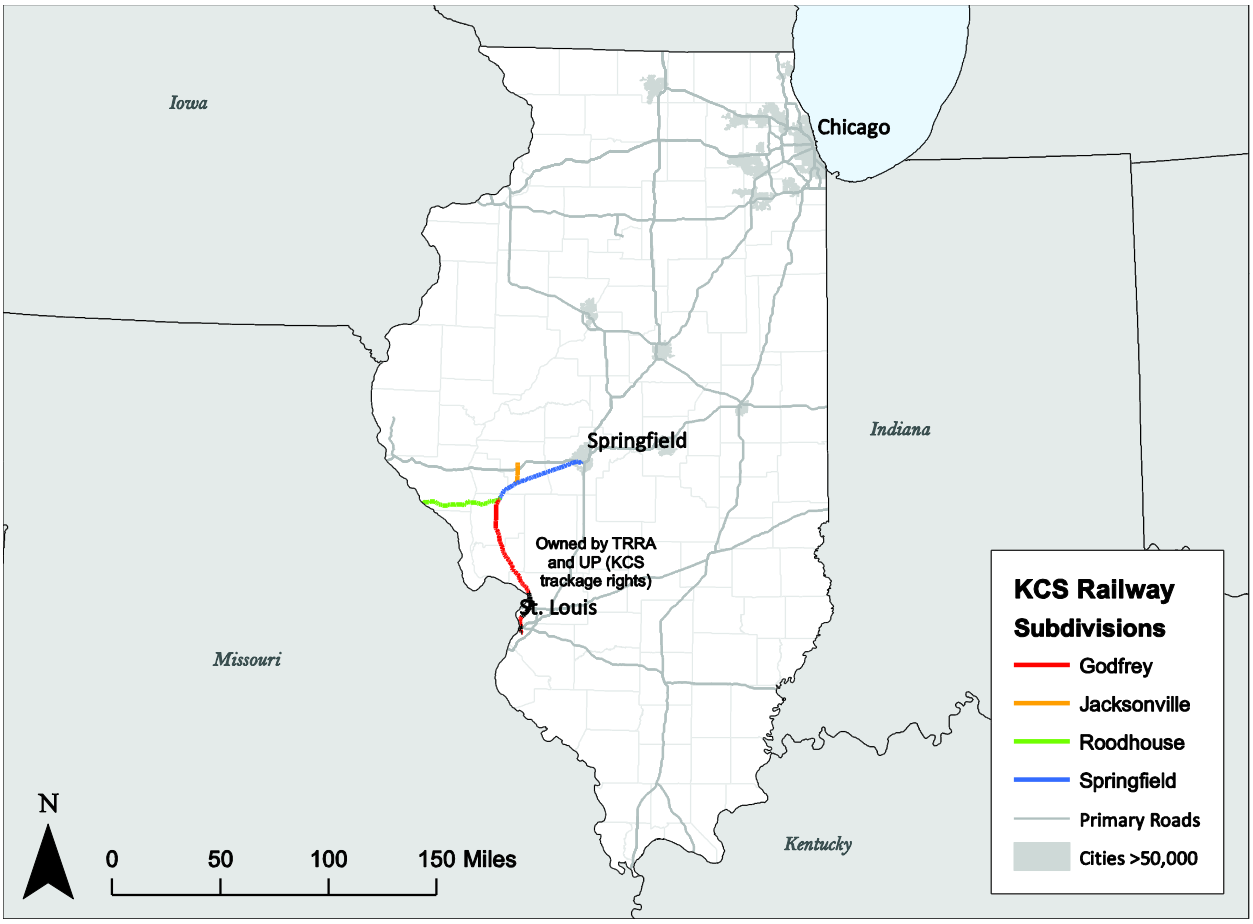

Figure 2.1.8 KCS Rail Network

Godfrey Subdivision: This line extends approximately 39 miles from Roodhouse to Godfrey. KCS has trackage rights over UP from Godfrey to the East St. Louis terminal area. The single-track line has a maximum operating speed of 40-49 mph. Train operations are controlled by TWC.

Jacksonville Subdivision: This line extends approximately 10 miles from Jacksonville to Murrayville. This line connects to BNSF at Jacksonville and to the KCS Springfield line at Murrayville.

Roodhouse Subdivision: This line extends approximately 37 miles between the Missouri/Illinois border and Roodhouse. KCS' Roodhouse Yard is located on the line. The line is single track with a maximum operating speed of 49 mph. Train operations are controlled by TWC.

Springfield Subdivision: This line extends approximately 45 miles from Roodhouse to Jacksonville, and from Murrayville to Cockrell. KCS operates over NS via trackage rights between Cockrell and Springfield. The single-track line has a maximum operating speed of 40 mph. Train operations are controlled by TWC.

Norfolk Southern (NS)

Norfolk Southern (NS) has significant operations east of the Mississippi River serving nearly all metropolitan areas. Its gateways to the west are Chicago, Kansas City, St. Louis, Memphis, New

Orleans, and through haulage rights, Dallas. NS focuses on its international operations on the Port of Norfolk.

NS Subdivisions serving Illinois are shown in the following map and summarized below.

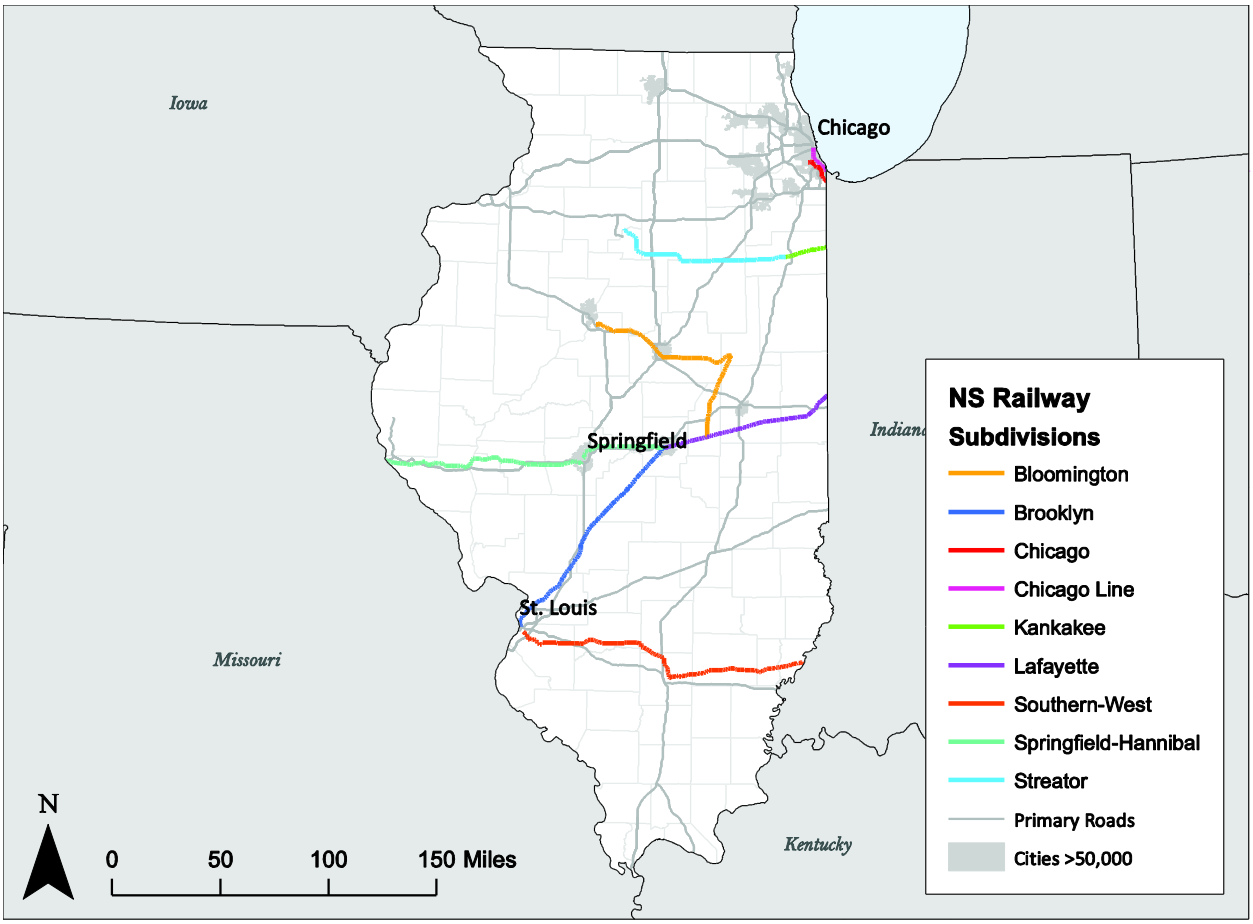

Figure 2.1.9 NS Rail Network

Bloomington District: This former Norfolk & Western line extends a total of 110.9 miles between Farmdale, near Peoria, to Bement at the junction with NS' Lafayette District. The line connects with UP at Bloomington, CN and the Bloomer Shippers Connecting Railroad at Gibson City, and NS' Mansfield Branch at Mansfield. The line is single track with authorized speeds of 40 to 50 mph between Farmdale and Gibson City and 50 mph between Gibson City and Bement. Train operations are controlled by CTC.

Brooklyn District: This former Norfolk & Western line extends a total of 108.7 miles from Mosser, near Decatur, to East St. Louis. The line connects with the NS Lafayette District at Mosser, the Illinois & Midland Railroad at Taylorville, the BNSF at Winston, NS' Monterey Branch at Remington, the Alton & Southern Railroad at Mitchell, and the Terminal Railroad at Madison Junction and CP Junction in East St. Louis. The line is single track with an authorized speed of 50 mph. Train operations are controlled by ABS.

Chicago District: This former Norfolk & Western line extends a total of 151.4 miles between Ft. Wayne, Indiana, and Forest Hills. A total of 14 miles lie within Illinois. The line connects with the

Indiana Harbor Belt Railroad at Burnham and the Belt Railway and Chicago Rail Link at Pullman Junction. Most trains on the line originate or terminate at Calumet Yard. Intermodal trains have access to Landers Yard via Metra at the end of the line. The line is primarily single track with authorized speeds of 25 to 40 mph. Train operations are controlled by ABS.

Chicago Line: This former Conrail line extends a total of 342.1 miles between Cleveland and Chicago. Approximately 15 miles lie within Illinois. Amtrak has trackage rights over the line. The line provides access to NS' Colehour Yard. The line is double track with authorized speed limits of 40 to 45 mph for freight and passenger trains. Train operations are controlled by CTC.

Kankakee Branch: This former Conrail line extends a total of 130 miles between Nipsco, Indiana, and Hennepin. A total of 103.2 miles lie within Illinois. The line connects with UP at Momence and Dwight, CN and the Kankakee Beaverville & Southern Railway at Kankakee, and BNSF at Streator. Customers on the line are served from the West Kankakee Yard. The line is single track with operating speeds between 30 and 45 mph with train operations controlled by TWC.

Lafayette District: This former Norfolk & Western line extends a total of 172 miles between Peru, Indiana, and Mosser, near Decatur. A total of 80.5 miles lie within Illinois. The line connects with the NS Brooklyn District at Bement, and CN at Tolono and Decatur. Customers on the line are served from NS' Tilton or Decatur Yards. The line is double track between Ryan and Elden and between Wiggins and Decatur, a total of 39 miles. The remainder of the line is single track with operating speed of 50 mph. Train operations are controlled by ABS.

Southern West District: This former Southern line extends a total of 158.4 miles from East St. Louis to Princeton, Indiana. A total of 146.8 miles lie within Illinois. The line connects with NS' Brooklyn District and the Terminal Railroad in East St. Louis, the Alton & Southern Railroad at A&S Junction, BNSF at Centralia, UP at Mt. Vernon, and CN at Centralia and Bluford. The line accesses Brooklyn Yard in East St. Louis and Centralia Yard. The line is single track with a maximum speed of 50 mph and train operations are controlled by CTC.

Springfield District: This former Norfolk & Western line extends a total of 139 miles between Mosser, near Decatur, and Hannibal, Missouri. A total of 138 miles lie within Illinois. The line connects to NS' Lafayette and Brooklyn Districts at Mosser and connects with CN at Starnes; CN, UP and Illinois Midland Railroad at Springfield; KCS at Cockrell; and BNSF at Jacksonville. NS yards on the line are located at Springfield and Bluffs. The line is single track with an authorized speed of 50 mph. Train operations are controlled by CTC.

Streator District: This line extends approximately 81 miles from Kankakee to Hennepin. CSX, BNSF and IR each have trackage rights over portions of the line. This line connects to UP at Dwight, and to BNSF and IR at Streator.

Union Pacific (UP)

The Union Pacific Railroad (UP) is America's largest railroad, with 31,900 route miles. The railroad operates in 23 states across the western two-thirds of the country. UP is the largest railroad in Illinois by mileage. It also owns the Alton & Southern Railway, which operates in the East St. Louis terminal area.

UP Subdivisions serving Illinois are shown in the following map and summarized below.

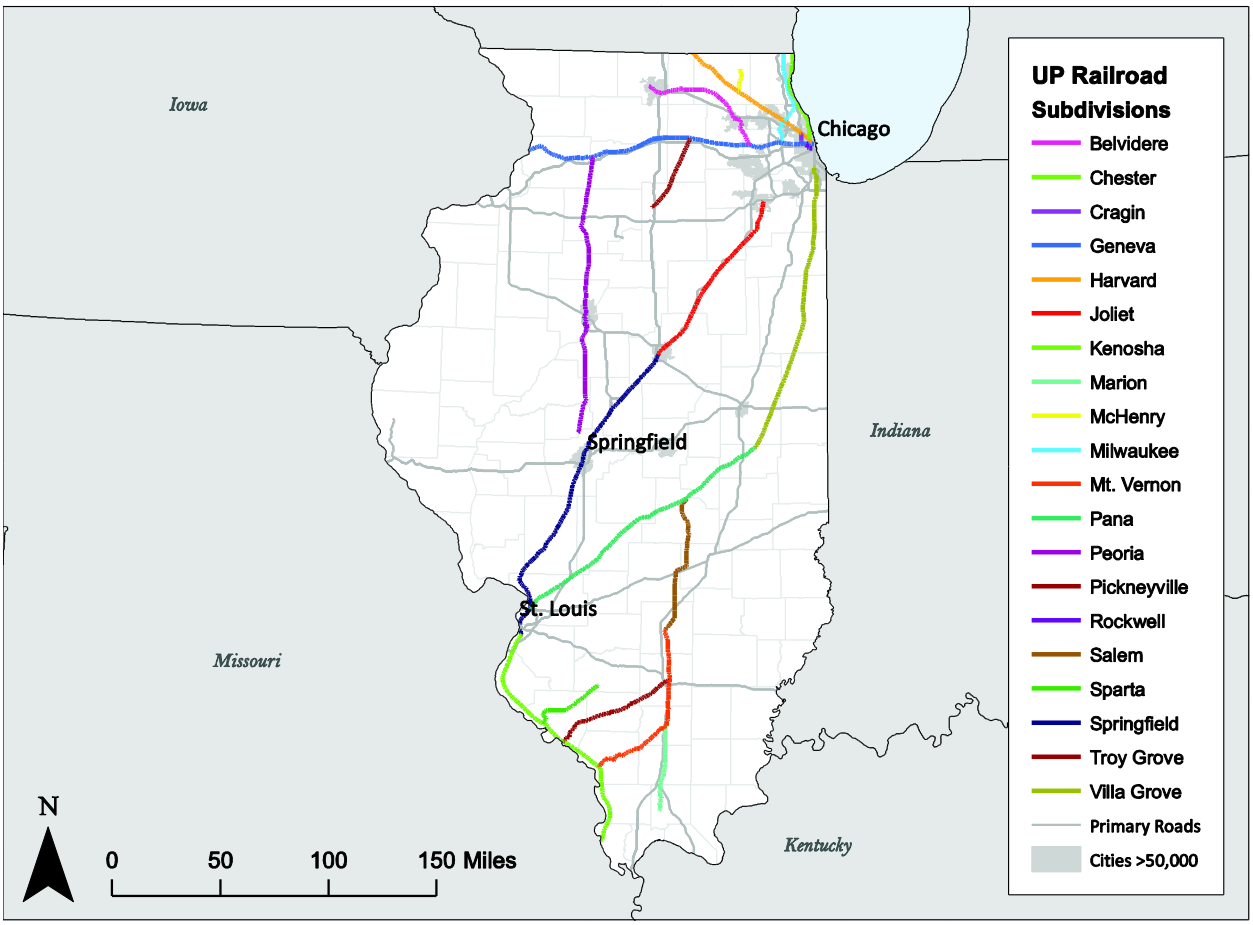

Figure 2.1.10 UP Rail Network

Belvidere Subdivision: This line extends approximately 53.6 miles between West Chicago and Rockford. This line connects with UP at West Chicago; CP at Elgin; and CN at West Chicago, Wayne and Rockford.

Chester Subdivision: This former Southern Pacific line extends approximately 135 miles between East St. Louis and Illmo, Missouri. Approximately 132 miles lay within Illinois. This line connects with UP rail yards at Chester and Gorman. This line connects to UP's Sparta Subdivision at Gage Junction, Pinkneyville Subdivision at Chester, and Mt. Vernon Subdivision at Gorham. The line is double track with maximum speeds of 70 mph. Train operations are controlled by CTC.

Cragin Subdivision: This line extends approximately 4.1 miles within Chicago. CSX and the Wisconsin & Southern Railroad each have trackage rights over a portion of the line. This line connects to the UP Harvard and Geneva lines, and to CP.

Geneva Subdivision: This former C&NW line extends 138.9 miles from Chicago (Ogilvie Transportation Center) to Clinton, Iowa. Approximately 137 miles lie within Illinois. This route is part of UP's Overland Route, which extends to Omaha, Nebraska. Metra has trackage rights over the line from Chicago to Elburn. The line connects to the Indiana Harbor Belt RR at Provo Junction, BNSF at West Chicago, UP's Troy Grove Subdivision at DeKalb, BNSF at Rochelle, and UP's Peoria Subdivision at Nelson. UP yards on this line are located at Keeler Avenue and Proviso Yards in Chicago, West

Chicago, Rochelle and Global III Yard near Flagg. The line consists of 2-3 tracks to Elburn and 2 tracks between Elburn and Clinton. Maximum train speeds are 70 mph for passenger and 60 mph for freight trains. Train operations are controlled by CTC.

Harvard Subdivision: This former C&NW line extends a total of 102 miles from Chicago (Ogilvie Transportation Center) to Jamesville, Wisconsin. Approximately 70 miles lie within Illinois. Metra has trackage rights over the line from Chicago to Harvard. The line connects to the UP Kenosha Subdivision at Clybourn, UP's Milwaukee Subdivision and CN at Des Plaines, CN at Barrington, and the Chicago Chemung RR at Harvard. UP's Avondale and Harvard Yards are located on the line. The line is triple track between Chicago and Barrington, double track between Barrington and Harvard, and single track for the remainder of the line. Maximum speeds are 59 mph for freight and 70 mph for passenger. Train operations are controlled by CTC between Chicago and Harvard and TWC beyond Harvard.

Joliet Subdivision: This former Southern Pacific line extends 89.9 miles between Joliet and Bloomington. The Pequod Subdivision consists of trackage between Mazonia and Pequod to access trackage rights over BNSF to Joliet. Amtrak has trackage rights over the Joliet Subdivision. The line connects to BNSF at Joliet. The Global IV Yard at Elwood and Bloomington Yard are located on the line. This single-track line has maximum speeds of 79 mph for passenger and 60 mph for freight trains. Train operations are controlled by TWC between Joliet and Mazonia and CTC between Mazonia and Bloomington.

Kenosha Subdivision: This former C&NW line extends a total of 79.9 miles from the Ogilvie Transportation Center in Chicago to St. Francis, Wisconsin. Approximately 45 miles lie within Illinois. Metra has trackage rights over the line. The line connects to UP's Harvard Subdivision at Clybourn. UP's Waukegan Yard is located on the line. The line is primarily double track between Chicago and Winnetka and single track for the remainder of the line. Maximum speeds are 70 mph for passenger and 60 mph freight trains. Trains operate via CTC between Chicago and Winnetka and TWC north of Winnetka.

McHenry Subdivision: This line extends approximately 8.3 miles between Prairie Grove and Ringwood. Metra has trackage rights over parts of the line.

Marion Subdivision: This line extends approximately 41.5 miles between Bunton and Buncombe. The southernmost 16 miles of the line are co-owned by BNSF. This line connects to CN and the UP Mt. Vernon line at Bunton; to the Crab Orchard & Egyptian Railroad at Marion; and to the BNSF at Goreville.

Milwaukee Subdivision: This former C&NW line extends a total of 96.8 miles between Proviso Yard in Chicago and Milwaukee, Wisconsin. Approximately 46.5 miles lie within Illinois. CP has trackage rights over the line between Elk Grove and Shermer. The line connects to UP's Harvard Subdivision at Proviso and Normal, and CP at Bryn Mawr and Shermer. The line is double track between Proviso Yard and KO Junction, and single track for the remainder of the line. Maximum speeds are 50 mph with train operations controlled by TWC.

Mt. Vernon Subdivision: This former Missouri Pacific line extends approximately 41 miles from Gorham to Benton. BNSF has trackage rights over the line between Gorham and DeSoto. The line connects to UP's Chester Subdivision at Gorham and UP's Chicago Subdivision at Benton. This single-track line has maximum speeds of 60 mph. Train operations are controlled by CTC.

Pana Subdivision: This former Missouri Pacific line extends approximately 138 miles between Villa Grove and Lenox. NS has trackage rights over the line between Villa Grove and Findley Junction and BNSF has trackage rights between Tolland and Lenox. The line connects with CN at Tuscola, UP's Chicago Subdivision at Findley Junction, and BNSF at Toland. This single-track line has a maximum operating speed of 60 mph. Train operations are controlled by CTC.

Peoria Subdivision: This former C&NW line extends 131.7 miles between Nelson and I&M Junction. The Nelson Yard is located on the line. The Illinois & Midland RR has trackage rights between Peoria and I&M Junction. The line connects to UP's Geneva Subdivision at Nelson, BNSF at Peoria Junction, and the IMRR at I&M Junction. This single-track line has maximum speeds of 49 mph. Train operations are controlled by TWC.

Pinckneyville Subdivision: This former Missouri Pacific line extends approximately 64 miles between Chester and Mount Vernon. UP's Mount Vernon Yard is located on the line. This single-track line has a maximum speed of 60 mph with train operations controlled by TWC.

Rockwell Subdivision: This line extends approximately 3.6 miles within Chicago. NS, CN, CSS and CSX have trackage rights on this line. This line connects to the UP Geneva line, NS, CN, CSX and BNSF.

Salem Subdivision: This line extends approximately 66.8 miles between Findlay and Salem. NS has trackage rights over the entire line, while CSX and CN have trackage rights over some portions. This line connects to the UP Pana line at Findlay; to CSX at Altamont and St. Elmo; to CN at Kinmundy; and to the UP Mt. Vernon line at Salem. Train operations are controlled by CTC.

Sparta Subdivision: This former Illinois Southern line extends approximately 29 miles between Gage Junction at Chester and Coulterville. CN has trackage rights between Sparta and Coulterville. UP's Sparta Yard is located on the line. The line connects with UP's Chester Subdivision at Chester, and CN at Sparta. This single-track line has a maximum speed of 35 mph. Train operations are controlled by CTC.

Springfield Subdivision: This former C&A line extends a total of 154.4 miles from Bloomington to St. Louis, Missouri. Approximately 153 miles lie within Illinois. Amtrak has trackage rights over the line and KCS has trackage rights between Godfrey and East St. Louis. The line connects to NS at Iles and Hazel Dell, CN at KC Junction, and with UP's Pana Subdivision at Lenox. UP's Bloomington and Ridgely Yards are located on the line. The line is single track between Bloomington and Wann and double track between Wann and East St. Louis. Maximum speeds are 79 mph for passenger and 50 mph for freight operations. Train operations are controlled by CTC.

Troy Grove Subdivision: This former C&NW line extends 56 miles from DeKalb to Troy Grove. The line connects to UP's Geneva Subdivision at DeKalb. The line is single track with a maximum speed of 40 mph. Train operations are controlled by TWC.

Villa Grove Subdivision: This former Missouri Pacific line extends a total of 135.6 miles between 81st Street in Chicago to Villa Grove. Amtrak has trackage rights over the line to Thornton Junction and CP has trackage rights between Thornton Junction and Woodland Junction. UP's Yard Center at Dolton and Villa Grove Yard are located on the line. The line connects to CSX and Indiana Harbor Belt at Dolton, CN at Thornton Junction, CSX at Woodland Junction, and NS at Sidney. The line is double track to Woodland Junction and single track from Woodland Junction to Villa Grove. Maximum speeds are 60 mph for freight and 70 mph for passenger trains with operations controlled by CTC.

Regional Railroads

There are three regional railroads that operate within Illinois. These railroads are listed in the following table and described below.

Table 2.1-1 Illinois Regional Railroads[32]

Regional Railroads	Illinois Miles Operated in 2015
Indiana Rail Road	34
Iowa Interstate Railroad	225
Wisconsin & Southern Railroad	85
Total	344

Indiana Rail Road (INRD): The Indiana Rail Road operates over former Illinois Central lines between Indianapolis, Indiana, and Effingham, Illinois, and over trackage rights between Terre Haute, Indiana, and Chicago. The railroad has a classification yard in Palestine, Illinois. The single-track line has a maximum speed of 40 mph with train operations controlled by TWC.

Iowa Interstate Railroad (IAIS): The Iowa Interstate Railroad operates between Chicago and Omaha, Nebraska. The railroad owns mainline track between Council Bluffs, Iowa, to Bureau, Illinois, and trackage rights extend over CSX from Bureau to Joliet and over Metra from Joliet to Blue Island. The railroad also has a major branch line from Peoria to Bureau. An intermodal ramp is located at Blue Island Yard. The single-track line has operating speeds of 25 mph with train operations controlled by TWC.

Wisconsin & Southern Railroad (WSOR): The Wisconsin & Southern Railroad operates in the Southern portion of Wisconsin with a small extension into northern Illinois. The line into Illinois extends from the state line near Zenda, Wisconsin, to Fox Lake. It also has trackage rights from Fox Lake to Rondout and between Clearing Yard, near Chicago to Milwaukee, Wisconsin. The single-track line has operating speeds of 25 mph with train operations controlled by TWC.

Short Line Railroads

A total of 13 short line, or local, railroads operate in Illinois. These railroads are outlined in the table below.

Table 2.1-2 Short Line Railroads in Illinois

Local Railroads	Location of Operations within Illinois	IL Miles Operated in 2015
Bloomer Line	Colfax-Kempton; Strawn-Gibson City	45.0
Chicago, Ft. Wayne & Eastern Railroad	Chicago Terminal Area	6.0
Chicago, South Shore & South Bend	Burnham-Kensington	6.0

[32] https://www.aar.org/Style%20Library/railroads_and_states/dist/data/pdf/Illinois-2012.pdf

Local Railroads	Location of Operations within Illinois	IL Miles Operated in 2015
Railroad		
Effingham Railroad	Effingham Area	5.0
Evansville Western Railway	Hillman Switch-Okawville	27.0
Illinois Railway	Streator-Montgomery; La Salle-Zearing; Mt. Morris-Oregon; Flagg Center-Rockport	113.0
Illinois & Midland Railroad	Pekin-Taylorville	169.0
Illinois Western Railroad	Greenville Area	3.0
Kankakee, Beaverville & Southern Railroad	Kankakee-Sheldon; Hooper-Newell	77.0
Keokuk Junction Railway	East Peoria-Warsaw; LaHarpe-Lomax	145.0
Port Harbor Railroad	Granite City	3.0
Toledo, Peoria & Western Railway	Mapleton-Sheldon	109.0
Vandalia Railroad	Vandalia Area	3.0
Total		711.0

Switching & Terminal Railroads

There are 23 switching and terminal railroads operating in Illinois. These railroads are outlined in the table below.

Table 2.1-3 Illinois Switching and Terminal Railroads

Switching and Terminal Railroads	IL Miles Operated in 2015
A & R Terminal Railroad	6.0
Ag Valley Railroad	3.0
Belt Railway Company of Chicago	27.0
Burlington Junction Railway	9.0
Chessie Logistics	1.0
Chicago Port Railroad Co.	1.0
Chicago Rail Link	72.0
Chicago Terminal Railroad	4.0
Cicero Central Railroad	1.0
City of Rochelle Railroad	4.0
Crab Orchard & Egyptian Railway	14.0
Decatur Junction Railway Co.	30.0
Eastern Illinois Railroad Co.	57.0
Indiana Harbor Belt Railroad	34.0
Manufacturers Junction Railway	6.0
Peru Industrial Railroad, LLC	3.0
Pioneer Industrial Railway Co.	8.0
Riverport Railroad, LLC	72.0
Shawnee Terminal Railway Co.	3.0
South Chicago & Indiana Harbor Railway	27.0

Switching and Terminal Railroads	IL Miles Operated in 2015
Tazewell & Peoria Railroad	28.0
Terminal Railroad Association of St. Louis	25.0
Vermillion Valley Railroad Co.	2.0
Total	437.0

Abandoned or Discontinued Rail Lines

Rail freight service, including the lines over which rail service is operated, is under the jurisdiction of STB. Rail owners and operators must apply to STB for permission to discontinue, or abandon, freight service on a line. IDOT coordinates rail abandonment activities in Illinois.

STB requires that a railroad must publish a notice to abandon an active line once a week for at least three consecutive weeks and provide notice at its stations and to its rail customers. For a line on which no service has been provided over the past two years, and where no customers object, prior notice is not required and the carrier is exempt from many of the STB abandonment requirements. For each abandonment application, STB establishes a docket number and collects information and testimony before deciding whether to allow abandonment or permit other actions as may be requested by interested parties. In addition to STB's authority to grant or deny abandonment of a rail line, it may also impose other conditions, such as granting "Interim Trail Use" or "Public Use" of the line.

The National Trails Act allows for reserving railroad right of way through the interim use of the railroad corridor as a trail. Interim trail use can be utilized when it is determined that the railroad right of way may be needed in the future for railroad use. Public agencies may also request that the rail corridor be made available for "public use" if it has been determined that the right of way is suitable for highway or mass transit usage, conservation, energy production or transmission, or recreation.

The following table shows rail segments in Illinois that have been abandoned or had service discontinued since 2010.

Table 2.1-4 Service Discontinuance or Abandonment in Illinois, 2010-Present[33]

Railroad	Description	Docket No.	Miles	Year
CIRY	Mileposts 2.78-8.5 in Peoria	AB-1066 Sub No. 1X	5.72	2010
Pioneer Indiana Railway	Mileposts 1.71-10.0 in Peoria	AB-1056X	8.29	2010
Chicago Terminal	Halsted St-Willow St; Clybourn Ave-Diversey Pkwy, Chicago	AB-1036	1.625	2010
BNSF	Discontinue trackage rights between Bridge Junction and P7PU Junction	AB-6 Sub No. 470X	3.0	2010
Union Pacific	Mileposts 35.13-38.3 near St. Charles	AB-33 Sub No. 284X	3.17	2010

[33] https://stb.maps.arcgis.com/home/webmap/viewer.html?webmap=59c5662600854756a7e6f18bca1a0f44

Chicago Central & Pacific	Mileposts 11.88-13.47 in North Riverside	AB-314 Sub No. 5X	1.6	2012
Elgin, Joliet & Eastern	Goose Lake Segment, Walker to South Wilmington	AB-117 Sub No. 8X	2.3	2012
Norfolk Southern	Mileposts 12.8-19.1, Schererville, IN, to Chicago	AB-290 Sub No. 336X	6.3	2012
Soo Line/CP	Mileposts 2.38-5.26 in Chicago	AB-57 Sub No. 60X	2.9	2012
BNSF	Cermak Road to Lumber Street in Chicago	AB-6 Sub No. 487X	0.6	2013

Intercity Passenger Rail

The Passenger Rail and Improvement Act of 2008 (PRIIA) requires states to submit a State Rail Plan if they are receiving federal funding for facilities, infrastructure, and equipment to provide or develop intercity passenger rail transportation.[34] The U.S. Department of Transportation will not officially approve PRIIA grants for a project unless the project is part of the State Rail Plan.[35] This chapter discusses existing passenger rail lines and stations, ridership, revenue, intermodal connectivity, and system performance.

Illinois' Existing Passenger Rail System

Since the Passenger Rail Investment and Improvement Act of 2008 (PRIIA) defines passenger rail as intercity and commuter rail, this section will only discuss these types of rail systems.

Amtrak

In 1970, Congress created Amtrak to take over intercity passenger rail services that twenty financially distressed railroad companies operated in the United States.[36] Most of these companies were looking to unload their money-losing passenger rail operations, even though they provided a vital public service. Over fifty years later, Amtrak operates 44 routes that serve over 500 destinations in 46 states and three Canadian provinces.[37] These services are comprised of long-distance routes, medium-distance (regional or corridor) routes, state-supported routes, and state-supported commuter rail routes. They are shown on the map on the next page.

[34] Illinois State Rail Plan, 2012

[35] United States Code 49 Section 24402(b)(1)

[36] https://www.amtrak.com/ccurl/998/601/Amtrak-National-Fact-Sheet-FY2015,0.pdf

[37] Illinois State Rail Plan, 2012

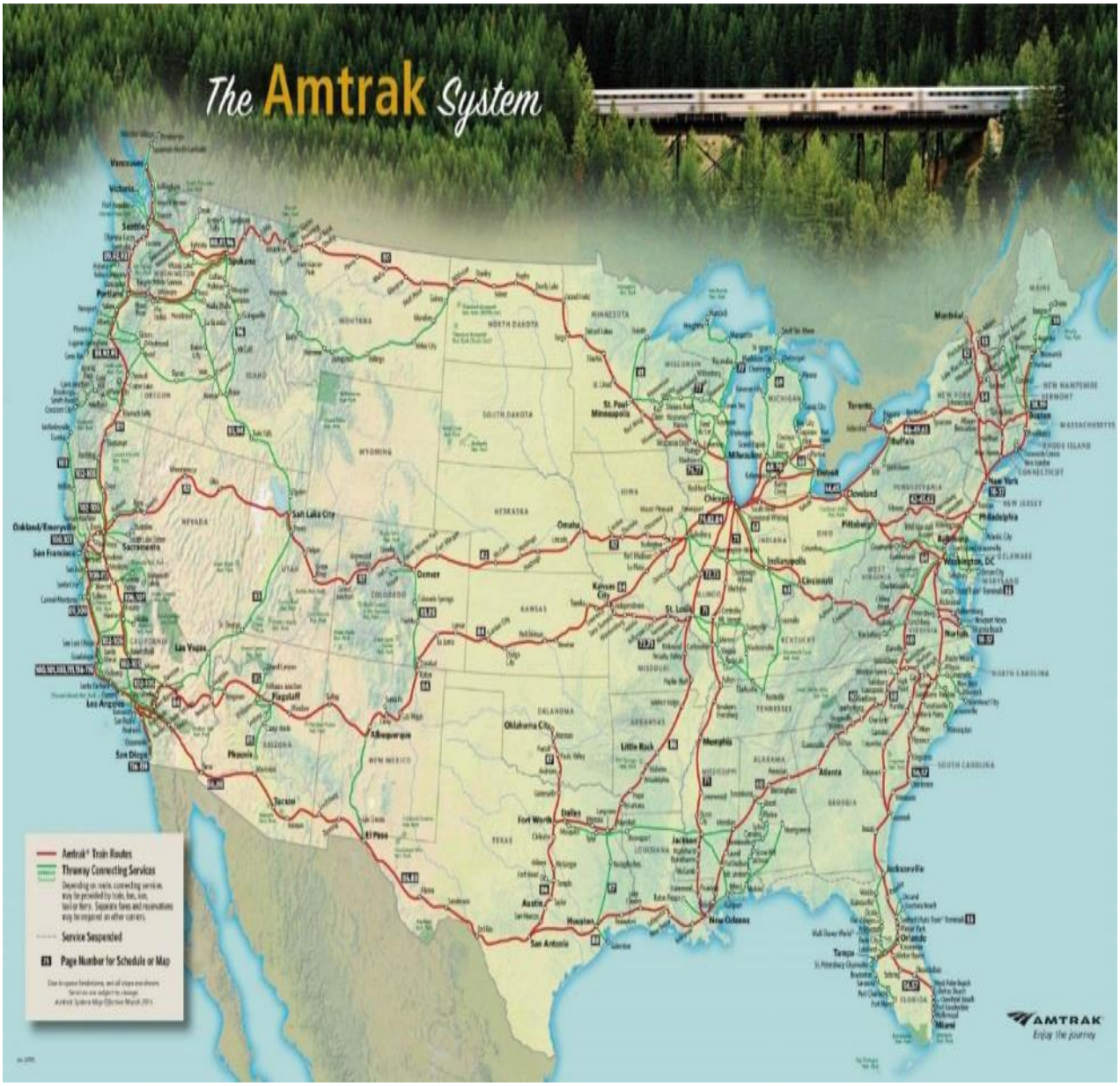

Figure 2.1.11 National Amtrak Network[38]

In federal fiscal year (FY) 2011, Amtrak set system-wide ridership records with annual ridership above 30 million passengers. System-wide ridership rose steadily from 28,716,857 passengers in FY2010 to 30,921,274 passengers in FY2014, a 7.7 percent increase. However, these ridership gains eroded from FY2012 to FY2014. Amtrak's system-wide ridership went from 31,240,565 passengers to 30,921,274 passengers, a drop of approximately 1.0 percent. Amtrak believed that sporadic episodes of severe weather and very low gas prices heavily contributed to these ridership declines. These system-wide ridership figures are shown in the figure below:

[38] https://www.amtrak.com/ccurl/948/674/System0211_101web,0.pdf

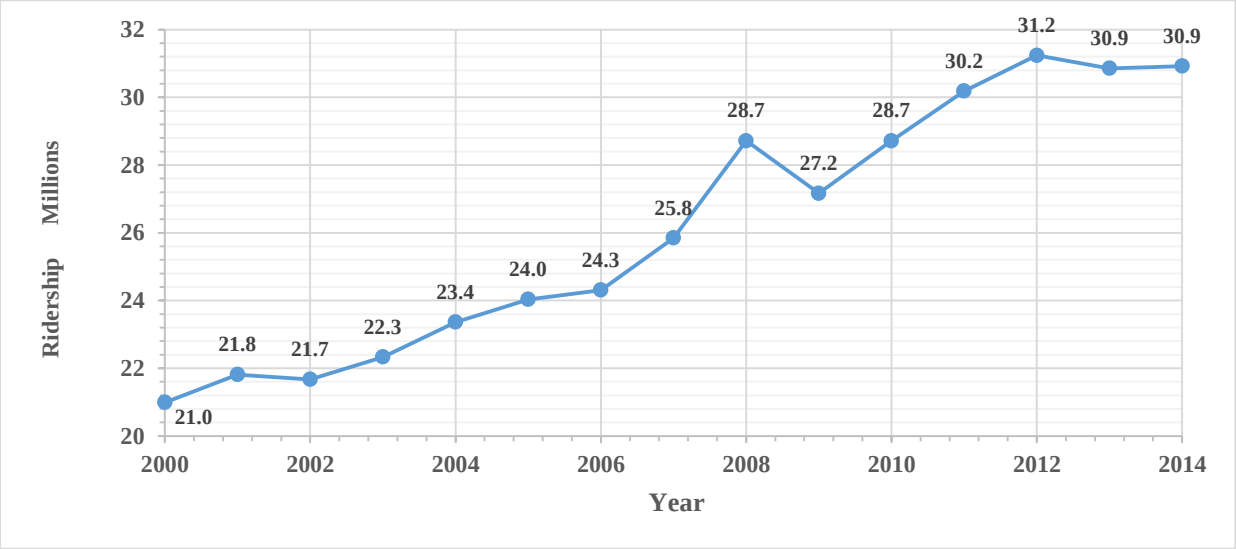

Figure 2.1.12 Amtrak system-wide ridership trend (2000-2014)

Amtrak's total revenue steadily grew from FY2011 to FY2014 from $1,891,679,827 to $2,188,654,846, a 15.7 percent increase. These total revenues are shown in the Figure below:

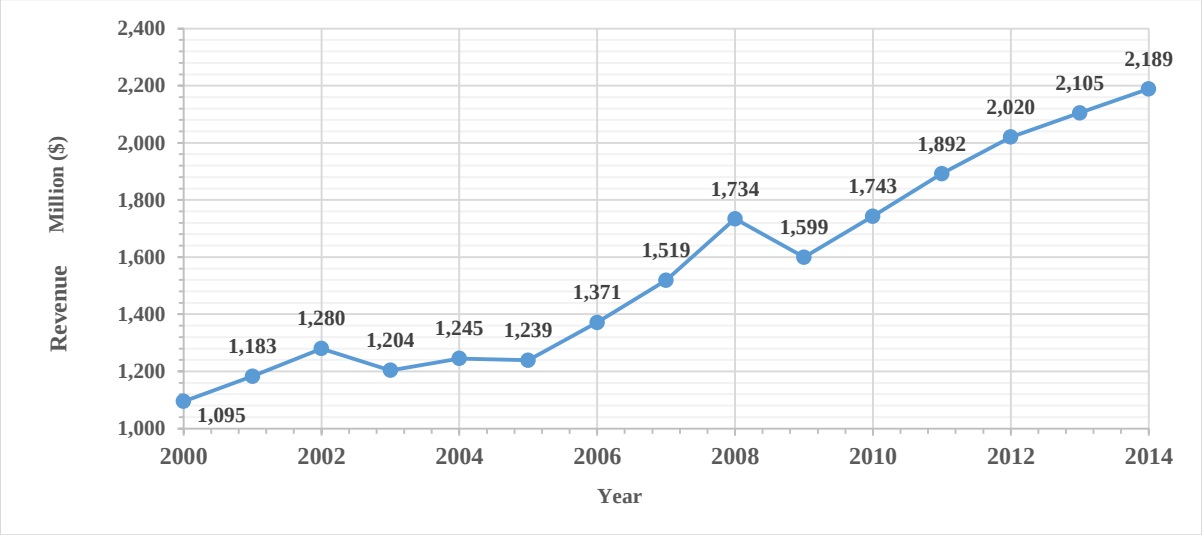

Figure 2.1.13 Amtrak system-wide revenue trend[39] [40] (2000-2014)

In Illinois, Amtrak currently operates eight long-distance routes, four medium-distance (regional) corridor routes, three state-supported routes, and one jointly state-supported route to and from

[39] https://www.amtrak.com/ccurl/636/294/Amtrak-Sets-New-Ridership-Record-FY2012-ATK-12-092.pdf
[40] https://www.amtrak.com/ccurl/968/399/ATK-11-133%20Record%20FY11%20Ridership%20and%20Revenue.pdf

Chicago's Union Station. Illinois and Wisconsin share the costs of the jointly state-supported route. Each of these routes are identified below and will be discussed at length in the next section.

The state of Illinois partially supports the operation of these in-state Amtrak routes:

- Lincoln Service (Chicago-Bloomington/Normal-Springfield-St. Louis)
- Illini and Saluki Services (Chicago-Champaign-Carbondale)
- Carl Sandburg and Illinois Zephyr Services (Chicago-Galesburg-Quincy)

Amtrak operates the following medium-distance (regional) corridor services that originate or terminate at Chicago's Union Station:

- Blue Water (Chicago-Port Huron, Michigan)
- Hoosier State (Chicago-Indianapolis, Indiana)
- Pere Marquette (Chicago-Grand Rapids, Michigan)
- Wolverine (Chicago-Detroit/Pontiac)

Amtrak also operates the following eight long-distance routes to and from Chicago's Union Station:

- California Zephyr (Chicago-Galesburg-Emeryville, California)
- Capitol Limited (Chicago-Cleveland-Washington, D.C.)
- Cardinal (Chicago-Cincinnati-New York)
- City of New Orleans (Chicago-Champaign-New Orleans)
- Empire Builder (Chicago-St. Paul/Minneapolis-Seattle, Washington/Portland, Oregon)
- Lake Shore Limited (Chicago-Cleveland-New York)
- Southwest Chief (Chicago-Kansas City-Los Angeles)
- Texas Eagle (Chicago-St. Louis-San Antonio, Texas)

The states of Illinois and Wisconsin jointly support seven daily round-trip trains between Chicago and Milwaukee on the Hiawatha Service. All the above routes have their Illinois segments shown on the map below:

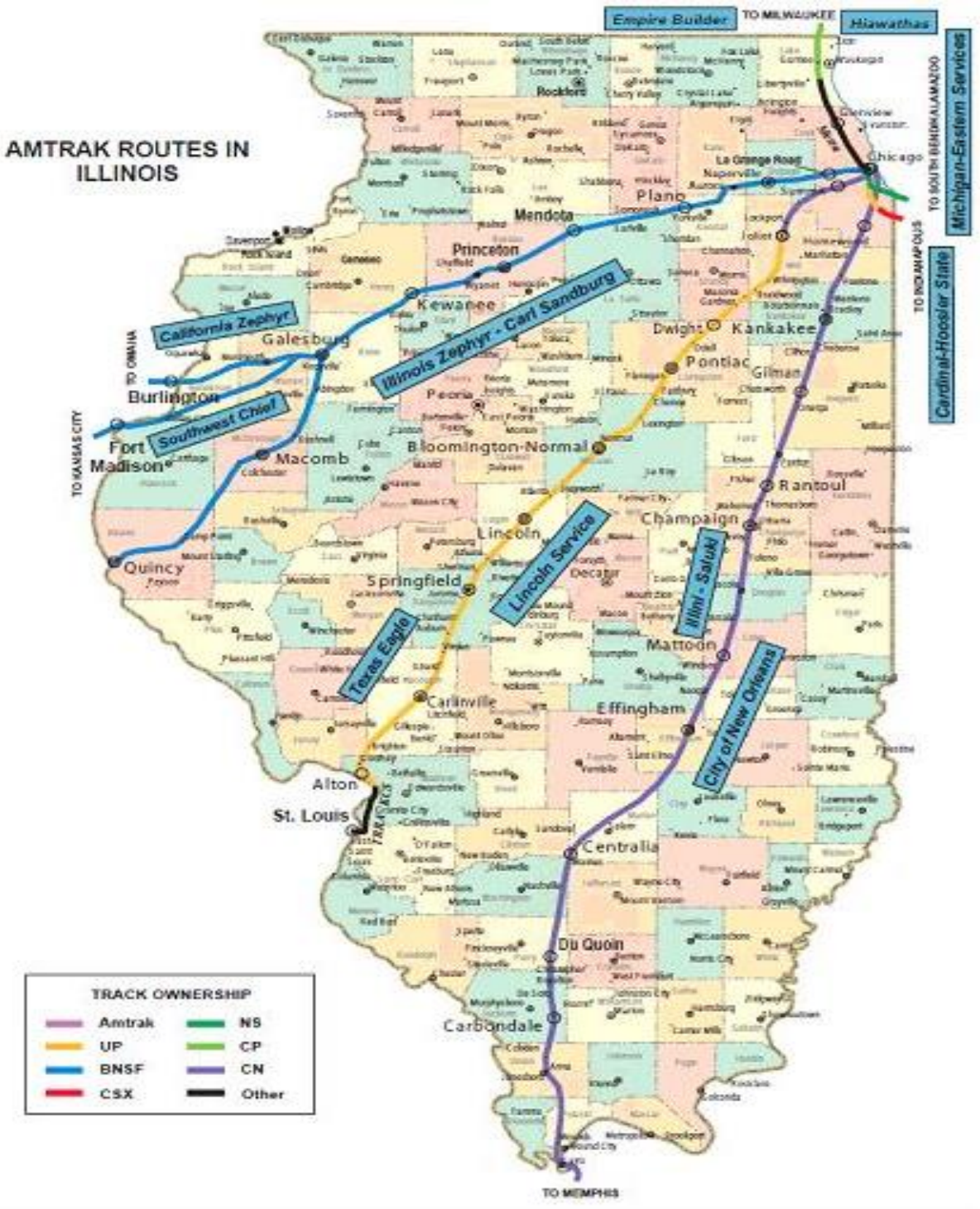

Figure 2.1.14 Amtrak Routes in Illinois

Table 2.1.5 Amtrak Route characteristics - Part I

Route Name	Total Route Miles	Owning Railroad Name	Train No.	Signal System	Overhead Traction Power System?	Name of Chicago Terminal	Name of Other Terminal	No. of Passenger Stations in Illinois	Name of Passenger Stations in Illinois
Blue Water	319	CN/GTW, Amtrak, MDOT, and NS	364 and 365	CTC	No	Chicago Union Station	Port Huron (Michigan)	1	Chicago Union Station
Capitol Limited	780	CSX and NS	29 and 30	CTC	No	Chicago Union Station	Washington, DC	1	Chicago Union Station
California Zephyr	2,438	UP and BNSF	5 and 6	CTC	No	Chicago Union Station	Emeryville (California)	4	Chicago Union Station, Naperville, Princeton and Galesburg
Cardinal	1,147	Amtrak, CSX, BB, CN, UP, and Metra	50 and 51	CTC	No	Chicago Union Station	New York City (New York)	1	Chicago Union Station
Carl Sandburg and Illinois Zephyr	258	BNSF	381 and 382	CTC	No	Chicago Union Station	Quincy	10	Chicago Union Station, La Grange Road, Naperville, Plano, Mendota, Princeton, Kewanee, Galesburg, Macomb and Quincy
City of New Orleans	934	Amtrak and CN	58 and 59	CTC	No	Chicago Union Station	New Orleans (Louisiana)	8	Chicago Union Station, Homewood, Kankakee, Champaign-Urbana, Mattoon, Effingham, Centralia and Carbondale
Empire Builder	2,206 (Seattle) and 2,257 (Portland)	BNSF, MCR, CP, and Metra	7 and 8 (Seattle), 27 and 28 (Portland), 807 and 808 (St. Paul)	CTC	No	Chicago Union Station	Portland (Oregon) or Seattle (Washington)	2	Chicago Union Station and Glenview

Table 2.1.5 Amtrak Route characteristics - Part I (Continued)

Route Name	Total Route Miles	Owning Railroad Name	Train No.	Signal System	Overhead Traction Power System?	Name of Chicago Terminal	Name of Other Terminal	No. of Passenger Stations in Illinois	Name of Passenger Stations in Illinois
Hiawatha Service	85	Amtrak, Metra, and CP	329-344	CTC	No	Chicago Union Station	Milwaukee (Wisconsin)	2	Chicago Union Station and Glenview
Hoosier State	196	CSX, UP, BRC, Metra, and NS	850 and 851	CTC	No	Chicago Union Station	Indianapolis	1	Chicago Union Station
Illini and Saluki	310	IC (CN)	309-393	CTC	No	Chicago Union Station	Carbondale	1	Chicago Union Station
Lake Shore Limited	959 (New York City) and 1,017 (Boston)	MNRR, CSX, NS, MBTA, and Amtrak	48 and 448 (New York City) and 49 and 449 (Boston)	CTC	No	Chicago Union Station	New York City or Boston	1	Chicago Union Station
Lincoln Service	284	CN, UP, NS, KCS, and TRRA	300-307	CTC and ABS	No	Chicago Union Station	St. Louis (Missouri)	10	Chicago Union Station, Summit, Joliet, Dwight, Pontiac, Bloomington-Normal, Lincoln, Springfield, Carlinville and Alton
Texas Eagle	1,306 (San Antonio) or 2,728 (Los Angeles)	UP, BNSF, and CN	21 and 22 (San Antonio), 321 and 322 (St. Louis), and 421 and 422 (Los Angeles)	CTC and ABS	No	Chicago Union Station	San Antonio (Texas) or Los Angeles (California)	9	Chicago Union Station, Joliet, Pontiac, Normal-Bloomington, Lincoln, Springfield, Carlinville and Alton
Wolverine	304	NS, CN, Amtrak, CR	350-355	CTC	No	Chicago Union Station	Pontiac (Michigan)	1	Chicago Union Station

Table 2.1.6 Amtrak Route characteristics – Part II

Route Name	Total Route Miles	Owning Railroad Name	Train No.	Signal System	Overhead Traction Power System?	Name of Chicago Terminal	Name of Other Terminal	No. of Passenger Stations in Illinois	Name of Passenger Stations in Illinois
Hiawatha Service	85	Amtrak, Metra, and CP	329-344	CTC	No	Chicago Union Station	Milwaukee (Wisconsin)	2	Chicago Union Station and Glenview
Hoosier State	196	CSX, UP, BRC, Metra, and NS	850 and 851	CTC	No	Chicago Union Station	Indianapolis	1	Chicago Union Station
Illini and Saluki	310	IC (CN)	309-393	CTC	No	Chicago Union Station	Carbondale	1	Chicago Union Station
Lake Shore Limited	959 (New York City) and 1,017 (Boston)	MNRR, CSX, NS, MBTA, and Amtrak	48 and 448 (New York City) and 49 and 449 (Boston)	CTC	No	Chicago Union Station	New York City or Boston	1	Chicago Union Station
Lincoln Service	284	CN, UP, NS, KCS, and TRRA	300-307	CTC and ABS	No	Chicago Union Station	St. Louis (Missouri)	10	Chicago Union Station, Summit, Joliet, Dwight, Pontiac, Bloomington-Normal, Lincoln, Springfield, Carlinville and Alton
Texas Eagle	1,306 (San Antonio) or 2,728 (Los Angeles)	UP, BNSF, and CN	21 and 22 (San Antonio), 321 and 322 (St. Louis), and 421 and 422 (Los Angeles)	CTC and ABS	No	Chicago Union Station	San Antonio (Texas) or Los Angeles (California)	9	Chicago Union Station, Joliet, Pontiac, Normal-Bloomington, Lincoln, Springfield, Carlinville and Alton
Wolverine	304	NS, CN, Amtrak, CR	350-355	CTC	No	Chicago Union Station	Pontiac (Michigan)	1	Chicago Union Station

Table 2.1.6 Amtrak Route characteristics – Part II (Continued)

Route Name	Service Frequency	Service Classes Available	Average Journey Time (In Hours)	No. Railroads Crossed at Grade	Location(s) of At-Grade Railroad Crossings	Location(s) of Movable Span Bridges	No. of Freight Yards in Illinois	Location of Freight Yards in Illinois	Track Gauge
Hiawatha Service	Daily	Coach		3	UP at A-2 and Mayfair, CN at Rondout	None	1	Rondout	4 ft. 8 1/2 inches
Hoosier State	Four Times a Week	Coach	-	2	CN at 21st Street and Shared Track Among NS, CSX, and IHB at Dolton	Chicago River	3	Canal Street, 47th Street and Yard Center	4 ft. 8 1/2 inches
Illini and Saluki	Twice Daily	Coach	5.5	13	CN at 21st Street, Metra at 16th Street, NS at Kankakee, TP&W at Gilman, NS at Tolono; Shared Track among the CSX, NS, and UP at Tuscola; CSX at Effingham; UP at Kinmundy, CSX at Odin; Shared Track between the NS and BNSF at Centralia; EVWR at Ashley; UP at Tamaroa and DeSoto	Chicago River	11	Chicago Union Station, Homewood, Kankakee, Gilman, Rantoul, Champaign-Urbana, Mattoon, Effingham, Centralia, DuQuoin and Carbondale	4 ft. 8 1/2 inches
Lake Shore Limited	Daily	Heritage or Viewliner Diner Cars, Amfleet Coaches, and Lounges, and Viewliner Sleepers	20 (New York City) and 22 Hours and 40 Minutes (Boston)	2	CN at 21st Street and Metra at Englewood	Chicago and Calumet Rivers	1	Chicago Union Station	4 ft. 8 1/2 inches

Table 2.1.6 Amtrak Route characteristics – Part II (Continued)

Route Name	Service Frequency	Service Classes Available	Average Journey Time (In Hours)	No. Railroads Crossed At-Grade	Location(s) of At-Grade Railroad Crossings	Location(s) of Movable Span Bridges	No. of Freight Yards in Illinois	Location of Freight Yards in Illinois	Track Gauge
Lincoln Service	Eight Times Daily	Horizon Fleet Coaches	-	14	Shared Track Among NS and CSX at Brighton Park; Shared Track Between CN and BNSF at Corwith, BRC at LeMoyne, IHB at Canal/Argo; Shared Track Among Metra, CSX, and IAIA at Joliet; NS at Dwight; TP&W at Chenoa; NS at Bloomington; CN at Lincoln (6M156); IMMR at Springfield (6M183); BNSF at Girard; NS at Wood River; NS at Lenox Tower; and NS at WR Tower	0	10	Bridgeport, Corwith, Glenn, Argo, Joliet, Global IV, Bloomington, Ridgely, Wood River and Granite City	4 ft. 8 1/2 inches

Table 2.1.6 Amtrak Route characteristics – Part II (Continued)

Route Name	Service Frequency	Service Classes Available	Average Journey Time (In Hours)	No. Railroads Crossed at Grade	Location(s) of At-Grade Railroad Crossings	Location(s) of Movable Span Bridges	No. of Freight Yards in Illinois	Location of Freight Yards in Illinois	Track Gauge
Texas Eagle	Daily (San Antonio) and Three Times per Week (Los Angeles)	Superliners	32 Hours and 10 Minutes (San Antonio) or 68 Hours and 45 Minutes (Los Angeles)	14	Shared Track Among NS and CSX at Brighton Park; Shared Track Between CN and BNSF at Corwith, BRC at LeMoyne, IHB at Canal/Argo; Shared Track Among Metra, CSX, and IAIA at Joliet; NS at Dwight; TP&W at Chenoa; NS at Bloomington; CN at Lincoln (6M156); IMMR at Springfield (6M183); BNSF at Girard; NS at Wood River; NS at Lenox Tower; and NS at WR Tower	Chicago River	10	Bridgeport, Corwith, Glenn, Argo, Joliet, Global IV, Bloomington, Ridgely, Wood River, and Granite City	4 ft. 8 1/2 inches
Wolverine	Three Times a Day	P42 DC Locomotives, Amfleet Cars, and Horizon Cars	-	2	CN at 21st Street and Metra at Englewood	Chicago and Calumet Rivers	1	Park Manor	4 ft. 8 1/2 inches

Organization of the Report

To comprehensively summarize Illinois' passenger rail system, the report used a variety of information about each intercity passenger and commuter rail route including a route description, a route map, ridership data, revenue data, on-time performance data and data about other route characteristics. This information collectively offers insights into each route's service area and its financial and operational performance. This information is classified into the following groups.

Ridership

Amtrak ridership data is provided for an entire route regardless of whether the route operates completely within or mostly outside of Illinois. Likewise, commuter rail ridership data is also provided for an entire route even if riders use stations outside of Illinois. Metra's Union Pacific North Line has a station in Kenosha, Wisconsin, and NICTD's South Shore Line has many of its stations within northwestern and north central Indiana. All the other commuter stations mentioned in this report are in Illinois. For each of these rail lines, the report provides five to six years of ridership data to illustrate ridership trends.

Revenue

Similarly, the report provides revenue data for each entire passenger and commuter rail route. Five-year revenue data (2010-2014) is provided to demonstrate recent revenue trends. This data was readily and consistently available for all the railroads in this report.

On-Time Performance

On-time performance measures how often a train meets the scheduled time on a route. Low on-time performance often is a strong indicator of customer dissatisfaction. On-time performance is given for January 2017 and for an average of the preceding 12 months.

Amtrak tracks the primary cause of delay each time one of their passenger trains is delayed. The following definitions are used to describe these primary causes:

- **Train Interference:** All delays related to other train movements in the area. Primary causes of these types of delays are freight trains but also can include commuter trains and other Amtrak passenger trains. This category also includes delays due to switching to alternate tracks or routes to operate around other trains.
- **Track and Signals:** All delays related to the railroad infrastructure. These delays include any type of delay involving problems with the tracks or the signals or delays involving maintenance work being done on the tracks or signaling systems. This also includes delays from reduced speeds to allow safe operation due to track problems.
- **Equipment:** All delays related to problems with the passenger train cars or engine. These delays can be due to unplanned equipment servicing or due to an equipment failure that may have occurred enroute or at the initial terminal. This includes delays due to a disabled passenger train ahead.
- **Weather Delays:** All delays related to weather conditions including speed restrictions due to excessive heat or flash flood warnings or an infrastructure failure due to severe weather, such as flooding, mudslides, washouts, wind damage, fallen trees, lightning strikes and power outages.
- **Passenger:** All delays related to assisting passengers. These delays include holding a station departure for passengers boarding or detraining, for passengers connecting from another train, or for assistance to an ill or injured passenger. Also included are any necessary delays for providing appropriate assistance to disabled passengers.
- **Operational:** All delays related to the late arrival and turning of train equipment at an initial terminal, movement of train equipment between the servicing yard and the initial terminal, and all train crew related delays, such as providing adequate crew rest or re-crewing as required by the federal hours of service law. Also included are delays over a detour route.
- **Non-Railroad:** All delays related to a non-railroad third party. These delays can be due to customs and immigration, a bridge opening for waterway traffic, police activity, grade crossing accidents, or loss of power due to a utility company failure.
- **Other:** A unique delay occurrence that does not fall under any of the normal delay categories.

Metra also tracks the primary cause of delay each time one of their commuter trains is delayed. They use the following list to describe their primary causes of delay:

- Passenger train interference
- Freight interference
- Accident
- Passenger loading

- Lift deployment
- Obstruction debris
- Signal/switch failure
- Track work
- Catenary failure
- Non-locomotive equipment failure
- Locomotive failure
- Human error
- Sick, injured or unruly passenger
- Weather
- Other

This report lists the top three causes of delay for each Amtrak route in percentage of delay minutes. Since some of these delays are a combination of causes, the percentages may not add up to 100 percent.

Other Route Characteristics

Passenger rail service providers annually carry over 87 million passengers within Illinois. The report has summarized each route's important characteristics, including the owning railroad, number of main tracks, signal system, revenue passenger trains per week day, the level of freight traffic and railroads crossed at grade. For Amtrak routes, the characteristics shown in the figure are for the portions of the routes within Illinois only.

The number of revenue passenger and commuter trains shown for each route does not include empty non-revenue equipment (also known as deadhead) movements or locomotive movements. On some routes, there are one or more mainline non-revenue train movements in peak periods. Near the Chicago terminals on each route, there are also many movements to and from train maintenance shops, layover facilities and engine houses. These are regular movements made at approximately the same time each day, or as equipment cycles dictate. However, they can vary as operational needs change. These movements represent a significant additional volume of traffic and consume additional movement capacity that may not be apparent from a cursory review of the revenue train schedules for a specific route. The information shown in the figure was developed from a variety of sources, including railroad timetables, route guides and track charts, public timetables published by Amtrak and Metra, rail maps, and other railroad and public sources. To enhance the readability of the figure, the individual references have been omitted.

Amtrak Route Descriptions

Lincoln Service

Amtrak operates four trains daily in each direction between Chicago (Union Station) and St. Louis. The Lincoln Service serves the following intermediate stations: Summit, Joliet, Dwight, Pontiac, Bloomington-Normal, Lincoln, Springfield, Carlinville and Alton.

The Lincoln Service spans 284 miles over tracks owned by Canadian National, Union Pacific, Norfolk Southern, Kansas City Southern and Terminal Railroad Association of St. Louis. Travel time on the Lincoln Service between Chicago and St. Louis is approximately 5.5 hours. Given this route's short length, Amtrak only offers coach seating. The following figure depicts the route.

Figure 2.1.15 Lincoln Service Route[41]

Ridership & Revenue

Overall ridership on this route has had many ups and downs. Overall ridership decreased 4 percent from 572,424 passengers in FY2010 to 549,465 passengers in FY2011. It then steadily increased 18.7 percent to 651,975 passengers in FY2013. After reaching this peak, overall ridership fell 15.8 percent to 548,955 passengers in FY2016.

Fare revenues have been more stable than ridership on the Lincoln Service. Fare revenue fell 8 percent from over $1.3 million in FY2010 to over $1.2 million in FY2011. It rose 36.1 percent from approximately $1.3 million to almost $16.8 million between FY2012 and FY2015, but fell 13.9 percent the following federal fiscal year to under $14.5 million. (No fare revenue was available at the time of this report for FY2016). The figure below depicts these trends in ridership and revenue on the Lincoln Service.

[41] www.amtrak.com

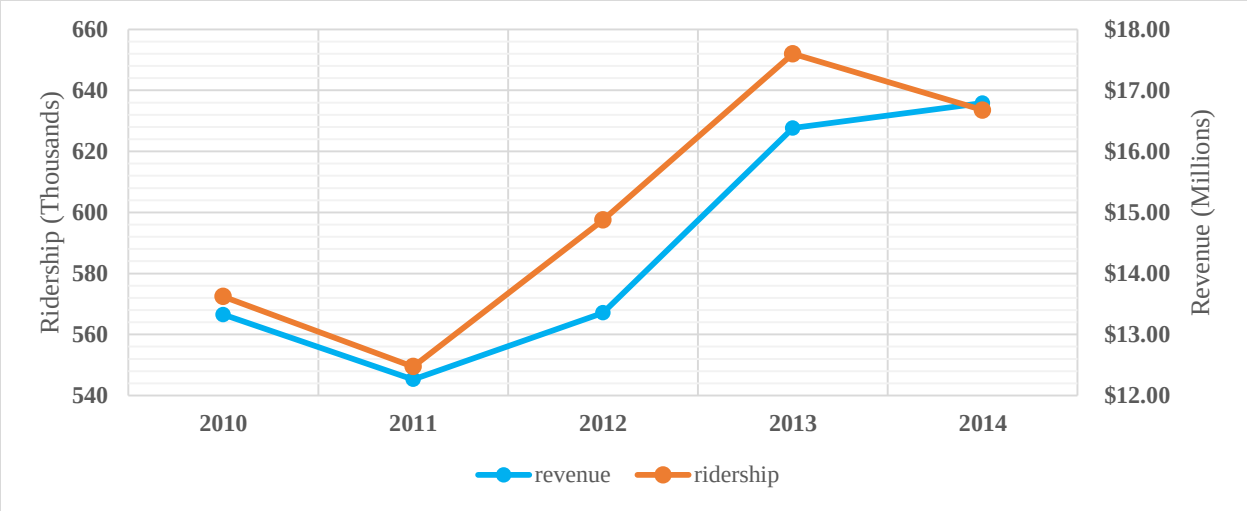

Figure 2.1.16 Ridership vs Revenue for the Lincoln Service

On-Time Performance

In January 2017, the Lincoln Service's endpoint on-time performance was 76.2 percent, which was steady for the last 12 months. Train interference (44.8 percent of all delay minutes), track and signals (26.9 percent), and operational issues (16.1percent) were the primary causes for delay.[42] In Illinois, Amtrak's Lincoln Service crosses at grade a track shared between the Norfolk Southern and the CSXT at Brighton Park; a shared track between the Canadian National and the Burlington Northern at Corwith; the Belt Railway of Chicago at Lemoyne; the Indiana Harbor Belt at Canal/Argo; a shared track among Metra, the CSXT, and the Iowa Interstate Railroad; the Norfolk Southern at Dwight, the Toledo, Peoria, and Western at Chenoa; the Norfolk Southern at Bloomington; the Canadian National at Lincoln (6M 156); the Illinois & Midland Railroad at Springfield (6M183); the Burlington Northern Santa Fe at Girard; and the Norfolk Southern at Wood River, Lenox Tower, and WR Tower. The Lincoln Service also crosses the Chicago River using a movable span bridge.

Other Route Characteristics

In Illinois, the Lincoln Service uses the Bridgeport, Corwith, Glenn, Argo, Joliet, Global IV, Bloomington, Ridgely, Wood River and Granite City Freight Yards. This route has Automatic Block Signal (ABS) and Centralized Traffic Control (CTC) signal systems. Its track gauge is 4 ft. 8 1⁄2 in (1435 mm).

Illini and Saluki Routes

Figure 2.1.17 Illini and Saluki Routes (Source: www.amtrak.com)

Amtrak operates the Illini and Saluki Routes, which each make a round trip daily between Chicago and Carbondale. Illini trains leave either Chicago or Carbondale in the morning and arrive at the opposite terminus in the early afternoon. Saluki trains leave either Chicago or Carbondale in the afternoon and arrive at the opposite terminus in the evening. The Illini and Saluki Routes serve the following intermediate stations: Homewood, Kankakee, Gilman, Rantoul, Champaign-Urbana, Mattoon, Effingham, Centralia and DuQuoin.

The Illini and Saluki Routes span 310 miles between Chicago and Carbondale over tracks that the Illinois Central (Canadian National) owns. The route is illustrated in the accompanying figure.

The Illini and Saluki Routes travel time between Chicago and Carbondale is approximately five and a half hours.

Ridership & Revenue

Overall ridership rose 28.6 percent from 264,934 passengers in FY2010 to 340,741 passengers in FY2013. In FY2014, overall ridership fell 23 percent to 262,325 passengers in FY2015.

Fare revenues increased 24.6 percent from almost $7.7 million in FY2010 to almost $9.6 million in FY2013. Since FY2013, fare revenue fell 12.3 percent to approximately $8.4 million in FY2015. (No fare revenue was available at the time of this report for FY2016). The figure below depicts these trends in ridership and revenue on the Illini and Saluki Routes.

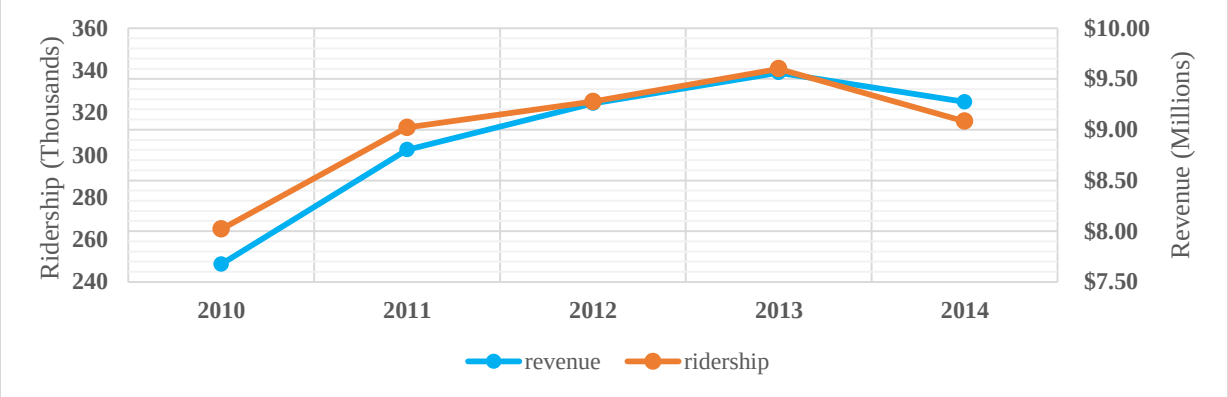

Figure 2.1.18 Ridership vs Revenue for Illini and Saluki

On-Time Performance

In January 2017, the Illini and Saluki Routes' endpoint on-time performance was 25.8 percent, which was steady for the last 12 months. Train interference (44.8 percent of all delay minutes), track and signal issues (26.9 percent) and operational issues (16.1 percent) were the primary causes for delay.[43] In Illinois, Amtrak's Illini and Saluki Routes cross Metra at 16th Street; the Canadian National at grade at 21st Street; the Norfolk Southern in Kankakee; the Toledo, Peoria and Western in Gilman; the Norfolk Southern in Tolono; a track shared among the CSXT, Norfolk Southern, and Union Pacific in Tuscola; the CSXT in Effingham, the Union Pacific in Kinmundy; the CSXT in Odin; a shared track between the Norfolk Southern and CSXT in Centralia; the Elkhart & Western Railroad in Ashley; the Union Pacific in Tamaroa; and the Union Pacific in DeSoto. The Illini and Saluki Routes also cross the Chicago River using a movable span bridge.

Other Route Characteristics

The Illini and Saluki Routes use freight yards in Homewood, Kankakee, Champaign, Effingham and Centralia. This route has a Centralized Traffic Control (CTC) signal system and its track gauge is 4 ft. 8 1⁄2 in (1435 mm).

[43] www.amtrak.com

Carl Sandburg and Illinois Zephyr Route

Amtrak operates the Carl Sandburg and Illinois Zephyr Routes once daily in each direction from Chicago (Union Station) to Quincy, Illinois. The Carl Sandburg and Illinois Zephyr Routes have the following intermediate stations: La Grange Road, Naperville, Plano, Mendota, Princeton, Kewanee, Galesburg and Macomb.

These routes are on the same rail line but their trains operate in the opposite direction. The Carl Sandburg Route runs from Chicago to Quincy in the morning and from Quincy to Chicago in the afternoon and evening. The Illinois Zephyr Route runs from Quincy to Chicago in the morning and from Chicago to Quincy in the evening.

These routes span 258 miles between Chicago and Quincy over tracks that the Burlington Northern Santa Fe owns. They are illustrated in the accompanying figure. The Carl Sandburg and Illinois Zephyr's travel time between Chicago and Quincy is approximately 4 hours and 28 minutes.

Figure 2.1.19 Carl Sandburg and Illinois Zephyr Route (Source: www.amtrak.com)

Ridership & Revenue

Between FY2010 and FY2012, overall ridership increased 11 percent from 209,466 passengers to 232,592 passengers. Since that time, overall ridership fell 12.7 percent to 202,961 passengers in FY2016.

Fare revenues increased 14.7 percent from approximately $5 million in FY2010 to almost $5.8 million in FY2013. Since that time, fare revenues dropped 8.7 percent to almost $5.3 million. (No fare revenue was available at the time of this report for FY2016.) The figure below depicts these trends in ridership and revenue on the Carl Sandburg and Illinois Zephyr Routes.

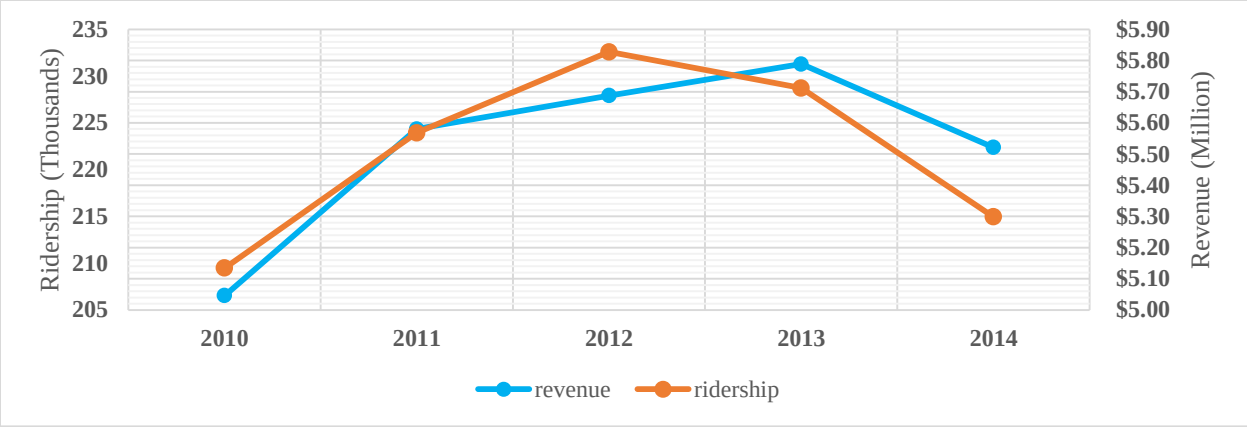

Figure 2.1.20 Ridership vs Revenue for the Carl Sandburg and Illinois Zephyr Routes

On-Time Performance

In January 2017, the Carl Sandburg and Illinois Zephyr Routes' endpoint on-time performance was 76.2 percent, which was steady for the last 12 months. Train interference (44.8 percent of all delay minutes), track and signal issues (26.9 percent) and operational issues (16.1percent) were the primary causes for delay.[44] Amtrak's Carl Sandburg and Illinois Zephyr Routes cross the Union Pacific at Earlville.

Other Route Characteristics

The Carl Sandburg and Illinois Zephyr Routes use Cicero, Aurora-Eola and Galesburg Yards. These routes have a Centralized Traffic Control (CTC) signal system and their track gauge is 4 ft. 8 1⁄2 in (1435 mm).

Blue Water Route

Amtrak daily operates one trip each way per day between Chicago and Port Huron, Michigan. This route serves Chicago Union Station (CUS) and the following stations in Michigan: New Buffalo, Niles, Dowagiac, Kalamazoo, Battle Creek, East Lansing, Durand, Flint, Lapeer and Port Huron.

This route spans 319 miles over tracks that the Canadian National/Grand Trunk Western, Amtrak, the Michigan Department of Transportation and Norfolk Southern own.

Travel time from Chicago to Port Huron is approximately seven hours.

[44] www.amtrak.com

Figure 2.1.21 Blue Water Route

Ridership & Revenue

Overall, ridership has grown 16.1 percent between FY2010 and FY2016 from 157,709 passengers to 183,069 passengers. This growth has been steady, except for FY2015 when ridership fell 5.6 percent.

Between FY2010 and FY2015, fare revenues increased 33 percent to over $6.3 million. (FY2016 fare revenue is currently unavailable. Amtrak has not released its FY2016 fare revenue data because it is unaudited.) The following figure depicts these trends in ridership and revenue on the Blue Water Route:

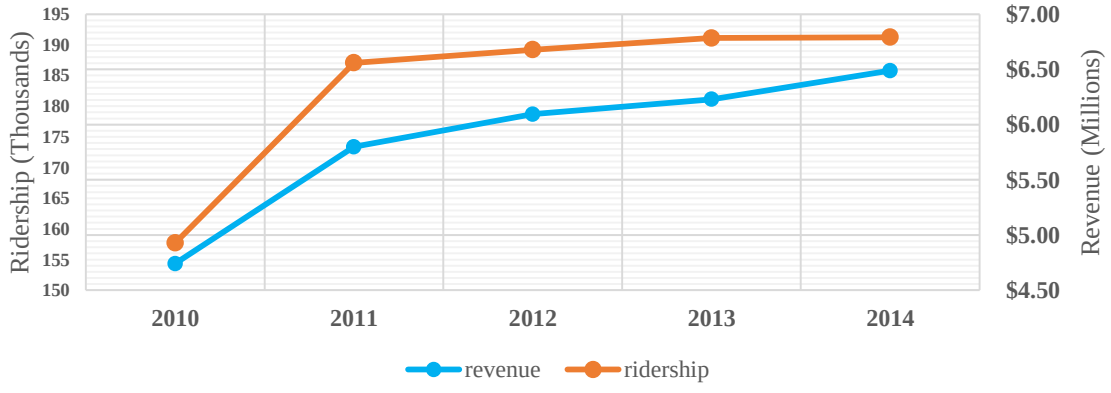

Figure 2.1.22 Ridership vs Revenue for Blue Water Route

On-Time Performance

In January 2017, the Blue Water Route's endpoint on-time performance was 71.0 percent in January 2017, up from 67.8 percent a year earlier. Train interference (43.8 percent of all delay minutes), operational issues (19.4 percent) and other issues (12.5 percent) were the primary causes for delay.[45] Amtrak's Blue Water Route respectively crosses the Canadian National and Metra at grade at 21st Street and Englewood Junction in Chicago. It also crosses movable span bridges over the Chicago and Calumet Rivers in Chicago.

Other Route Characteristics

The Blue Water Route uses the Park Manor Yard and has a Centralized Traffic Control (CTC) signal system. The track gauge is 4 ft. 8 1⁄2 in (1435 mm) and the average operating speed is 55 mph.

Hoosier State Route

Amtrak operates the Hoosier State Route between Chicago and Indianapolis on Sunday, Monday, Wednesday and Friday. It serves Union Station in Chicago and Dyer, Rensselaer, Lafayette, Crawfordsville, and Indianapolis in Indiana.

The Hoosier State Route spans 196 miles over Norfolk Southern tracks between Chicago and Dyer and CSX tracks between Dyer and Indianapolis. Travel time on the Hoosier State Route from Chicago to Indianapolis is approximately five hours. Given this route's short length, Amtrak only offers coach seating. This route is shown below:

Figure 2.1.23 Hoosier State Route (Source: www.amtrak.com)

Ridership & Revenue

Overall ridership decreased 12.4 percent from 33,600 passengers in FY2010 to 29,448 passengers in FY2016. The sharpest declines have occurred between FY2013 and FY2016 when overall ridership fell 20 percent from 36,768 passengers to 29,448 passengers.

Fare revenues rose 12.1 percent from $796,094 in FY2010 to over $892,553 in FY2013. Subsequently, it plummeted 11.4 percent to $711,481 in FY2016. (No fare revenue was available at the time of this report for FY2016.) The figure below depicts these trends in ridership and revenue on the Hoosier State Route.

[45] www.amtrak.com

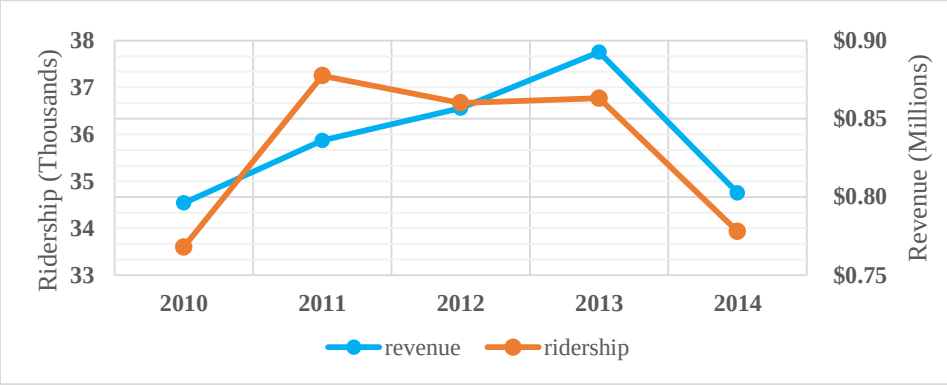

Figure 2.1.24 Ridership vs Revenue for the Hoosier State Route

On-Time Performance

In January 2017, the Hoosier State Route's endpoint on-time performance was 77.8 percent, which was steady for the last 12 months. Train interference (46.9percent of all delay minutes), operational issues (24.8percent) and track and signal issues (14.4percent) were the primary causes for delay.[46]

Other Route Characteristics

The Hoosier State Route uses Canal Street and 47th Street Yards in Chicago as well as Yard Center in Dolton/South Holland. This route has a Centralized Traffic Control (CTC) signal system and its track gauge is 4 ft. 8 1⁄2 in (1435 mm).

Pere Marquette Route

Amtrak operates one train daily in each direction on the Pere Marquette Route between Chicago (Union Station) and Grand Rapids, Michigan. It serves the following intermediate stations in Michigan: St. Joseph, Bangor and Holland. The Pere Marquette Route spans 176 miles using tracks that the CSXT and Norfolk Southern own.

Trains take approximately 4 hours to travel between Chicago and Grand Rapids. Given this route's short length, Amtrak offers only coach service. The following figure depicts the Pere Marquette Route.

[46] www.amtrak.com

Figure 2.1.25 Pere Marquette Route

Ridership & Revenue

Ridership on the Pere Marquette rose 7.3 percent from 101,907 passengers in FY2010 to a peak of 109,321 passengers in FY2012. It then decreased 18.1 percent to 89,508 passengers in FY2016.

Similarly, fare revenue increased 12.5 percent from over $2.9 million in FY2010 to almost $3.3 million in FY2012. Since that time, fare revenue steadily decreased to over $3 million in FY2015. (No fare revenue was available at the time of this report for FY2016.) The figure below depicts these trends in ridership and revenue on the Pere Marquette Route.

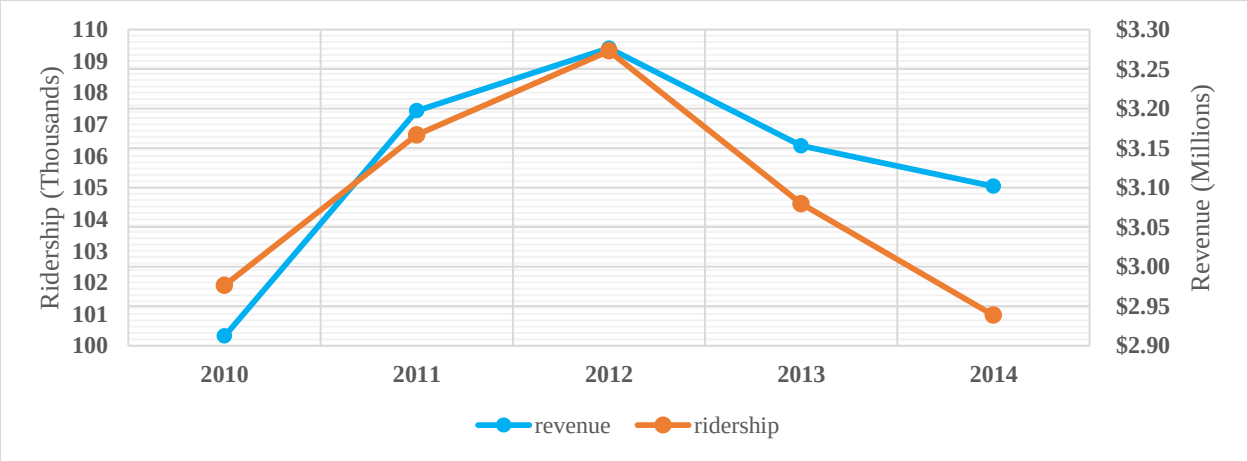

Figure 2.1.26 Ridership vs Revenue for the Pere Marquette Route

On-Time Performance

In January 2017, the Pere Marquette Route's endpoint on-time performance was 87.1 percent, which improved from 84.7 percent over the last 12 months. Track and signal issues (31.7 percent of

all delay minutes), train interference (21.4 percent) and other issues (16.1percent) were the primary causes for delay.[47] In Illinois, Amtrak's Pere Marquette Route crosses at grade the Canadian National at 21st Street and Metra at Englewood. The Pere Marquette Route also crosses the Chicago and Calumet Rivers using movable span bridges.

Other Route Characteristics

The Pere Marquette Route uses the Park Manor Freight Yard in Chicago. This route has a Centralized Traffic Control (CTC) signal system and its track gauge is 4 ft. 8 1⁄2 in (1435 mm).

Wolverine Route

Amtrak operates three trains daily in each direction on the Wolverine Route between Chicago (Union Station) and Pontiac, Michigan. The Wolverine Route spans 304 miles using tracks that the Norfolk Southern, Canadian National, Amtrak and Conrail own. Near the middle of the line at Battle Creek, Michigan, Amtrak passengers can transfer to an Indian Trails Bus to and from East Lansing and Flint, Michigan. They can reserve the bus through Amtrak's Thruway Program.

Trains take approximately 6 hours 40 minutes to travel between Chicago and Pontiac. Given this route's relatively short length, Amtrak offers only coach service. The Wolverine and Thruway Service to Flint takes between 6 hours 25 minutes and 7 hours 25 minutes. The following figure depicts the Wolverine Route and the Thruway to Flint, Michigan.

Figure 2.1.27 Wolverine Route

Ridership & Revenue

Ridership on the Wolverine Route twice peaked and declined between FY2010 and FY2016. This route's ridership rose 4.9 percent from 479,782 passengers in FY2010 to 503,290 passengers in

[47] www.amtrak.com

FY2011. In FY2012, this line's ridership decreased 3.8 percent to 484,138 passengers but rebounded in 2013 with 509,100 passengers. In FY2016, ridership decreased 13.7 percent to 411,625 passengers.

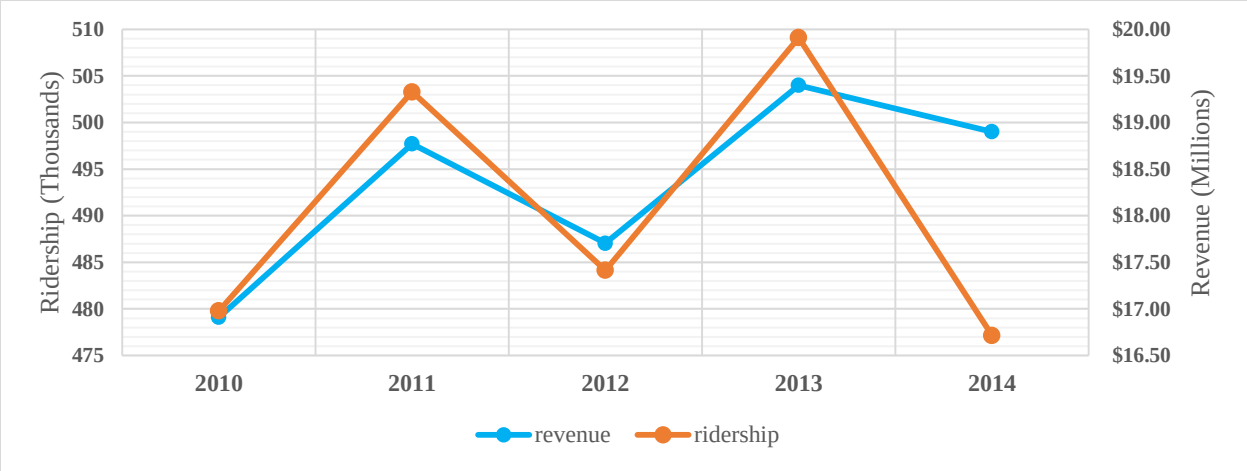

Figure 2.1.28 Ridership vs Revenue for the Wolverine Route

Likewise, fare revenue on the Wolverine Route had several year-to-year increases and decreases. This route's fare revenues rose 11 percent from almost $17 million to over $18.7 million from FY2010 to FY2011. It decreased 5.7 percent to approximately $17.7 million in FY2012 and rebounded 9.6 percent in FY2013 with fare revenues totaling almost $19.4 million. Fare revenues again declined 2.6 percent to $18.9 million in FY2014 and rose .31 percent to almost $19 million in FY2015. (No fare revenue was available at the time of this report for FY16.) Figure 2.1.28 depicts these trends in ridership and revenue on Wolverine Route.

On-Time Performance

In January 2017, the Wolverine Route's endpoint on-time performance was 67.7 percent, which is less than the on-time performance average for the last 12 months. Track and signal issues (35.1 percent of all delay minutes), train interference (34.9 percent) and non-railroad issues (11.6percent) were the primary causes for delay.[48] In Illinois, the Wolverine Route crosses at grade the Canadian National at 21st Street and Metra at Englewood in Chicago. The Wolverine Route uses movable span bridges to cross the Chicago and Calumet Rivers.

Other Route Characteristics

In Illinois, the Wolverine Route uses the Park Manor Freight Yard. This route has a Centralized Traffic Control (CTC) signal system. Its track gauge is 4 ft. 8 1⁄2 in (1435 mm).

Hiawatha Service

Amtrak operates seven trains daily in each direction between Chicago (Union Station) and Milwaukee from Monday to Saturday and six trains daily between Chicago (Union Station) and Milwaukee on Sunday. The Hiawatha Service serves Chicago Union Station and Glenview in Illinois and Sturtevant (Racine), General Mitchell International Airport, and the Milwaukee Intermodal Station in Wisconsin.

[48] www.amtrak.com

The Hiawatha Service spans 85 miles over Metra tracks between Chicago (Union Station) and Glenview and over Canadian Pacific tracks between Glenview and the Milwaukee Intermodal Station. Travel time on the Hiawatha Service from Chicago to Milwaukee is approximately 1.5 hours. Given this route's short length, Amtrak only offers coach seating. The following figure depicts the Hiawatha Service route:

Figure 2.1.29 Hiawatha Service Route (Source: www.amtrak.com)

Ridership & Revenue

Overall ridership grew 7.1 percent from 783,060 passengers in FY2010 to 838,355 passengers in FY2012. It has declined and rebounded twice since that time. In FY2016, overall ridership increased 1 percent to 807,720 passengers, a 3.1 percent increase from FY2010.

Fare revenues have increased 20.6 percent from almost $14.1 million in FY2010 to almost $17 million in FY2015. (No fare revenue was available at the time of this report for FY2016.) The figure below depicts these trends in ridership and revenue on the Hiawatha Service.

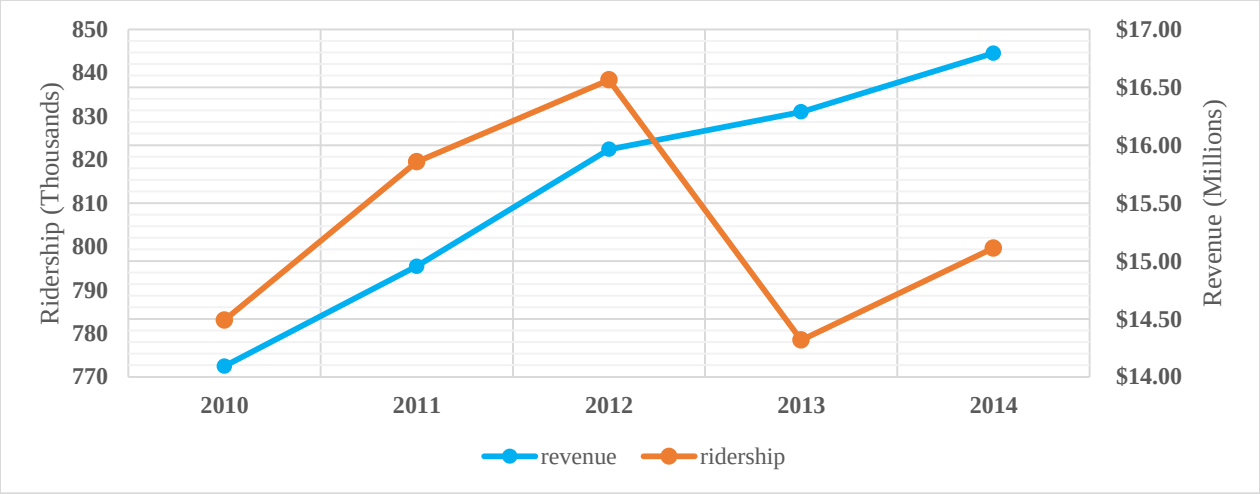

Figure 2.1.30 Ridership vs Revenue for the Hiawatha Service

On-Time Performance

In January 2017, the Hiawatha Service's endpoint on-time performance was 97.4 percent, which was steady for the last 12 months. Train interference (48.7 percent of all delay minutes), other issues (22.0 percent), and track and signal issues (12.3 percent) were the primary causes for delay.[49] In Illinois, Amtrak's Hiawatha Service respectively crosses at grade the Union Pacific at A-2 and Mayfair Junction and the Canadian National at Rondout.

Other Route Characteristics

The Hiawatha Service uses Rondout Yard. This route has a Centralized Traffic Control (CTC) signal system and its track gauge is 4 ft. 8 1⁄2 in (1435 mm). Its average operating speed is 57 mph (92 km/h).

California Zephyr Route

Amtrak daily operates one trip each way on the California Zephyr Route between Chicago (Union Station) and Emeryville, California (near San Francisco). The California Zephyr Route serves 42 cities in Illinois, Iowa, Nebraska, Colorado, Utah, Nevada and California, including Chicago, Naperville, Princeton and Galesburg in Illinois.

This route spans 2,438 miles over tracks that the Burlington Northern Santa Fe and the Union Pacific own. The Burlington Northern Santa Fe owns the tracks between Chicago and Denver and the Union Pacific owns the tracks from Denver to Emeryville.

Travel time between Chicago and Emeryville is approximately 52 hours. Given this route's immense length, Amtrak offers superliner sleepers as well as coach service. This route is shown below:

[49] www.amtrak.com

Figure 2.1.31 California Zephyr Route (Source: www.amtrak.com)

Ridership & Revenue

Between FY2010 and FY2016, overall ridership increased 10.6 percent from 377,836 passengers to 417,322 passengers. Ridership during this time rose and declined several times during this period with ridership dipping in FY2011 and FY2014 and rebounding in subsequent years.

Fare revenues between FY2010 and FY2015 increased 11.5 percent to almost $48.8 million. (No fare revenue was available at the time of this report for FY2016.) The figure below depicts these trends in ridership and revenue on the California Zephyr Route.

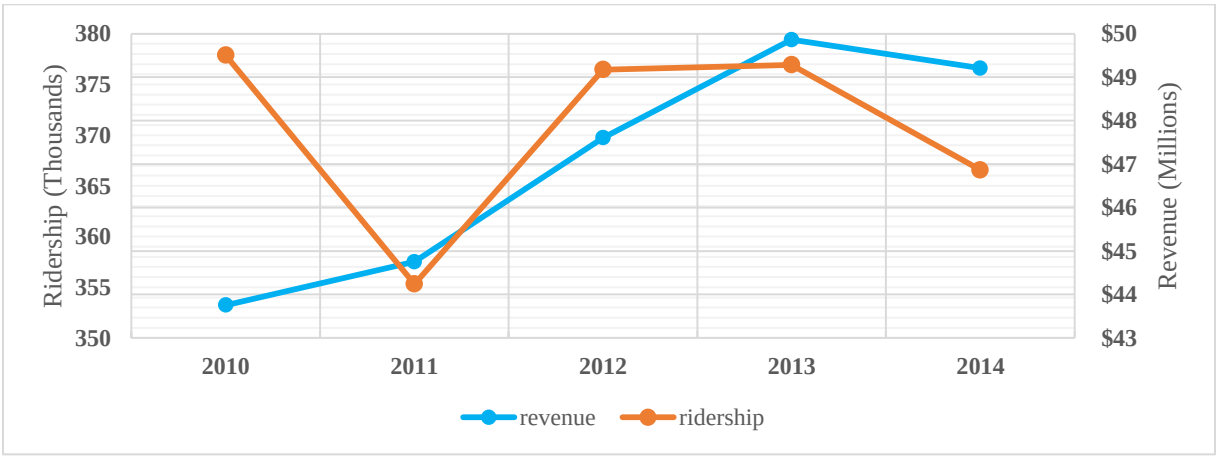

Figure 2.1.32 Ridership vs Revenue for the California Zephyr Route

On-Time Performance

In January 2017, the California Zephyr Route's endpoint on-time performance was 25.8 percent, which is steady for the last 12 months. Train interference (28.6 percent of all delay minutes), track and signal operating issues (21.4 percent), and the weather (20.3 percent) were the primary causes

for delay.[50] Amtrak's California Zephyr Route crosses the Union Pacific Railroad at grade at Earlville. It also crosses the Mississippi River using a movable span bridge.

Other Route Characteristics

The California Zephyr Route uses three railyards in Illinois, which are Cicero, Aurora-Eola and Galesburg. It has Centralized Traffic Control (CTC). The track gauge is 4 feet, 8 1⁄2 inches (1435 mm).

Capitol Limited Route

Amtrak offers daily service on its Capitol Limited Route between Chicago (Union Station) and Washington, D.C. The Capitol Limited Route serves 16 cities in Illinois, Indiana, Ohio, Pennsylvania, West Virginia, Maryland and Washington, D.C.

This route spans 780 miles respectively over Norfolk Southern tracks from Chicago to Pittsburgh and over CSX tracks from Pittsburgh to Washington, DC.

Travel time on the Capital Limited Route from Chicago to Washington, D.C., is approximately 18 hours. Given this route's length, Amtrak offers coach and first-class seating. This route is shown below:

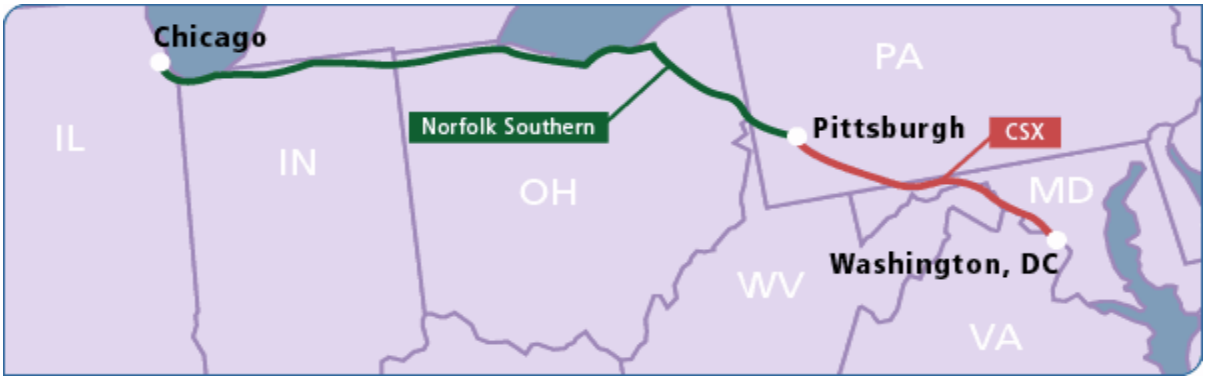

Figure 2.1.33 Capitol Limited Route (Source: www.amtrak.com)

Ridership & Revenue

Between FY2010 and FY2016, overall ridership increased 4.3 percent to 228,444 passengers. Although ridership was rising steadily during this period to FY2015, it fell 4.1 percent in FY2016 and recovered a little the following year.

Fare revenues between FY2010 and FY2015 increased 9.2 percent from almost $18.6 million to over $19.1 million. (No fare revenue was available at the time of this report for FY2016.) The figure below depicts these trends in ridership and revenue on the Capitol Limited.

[50] www.amtrak.com

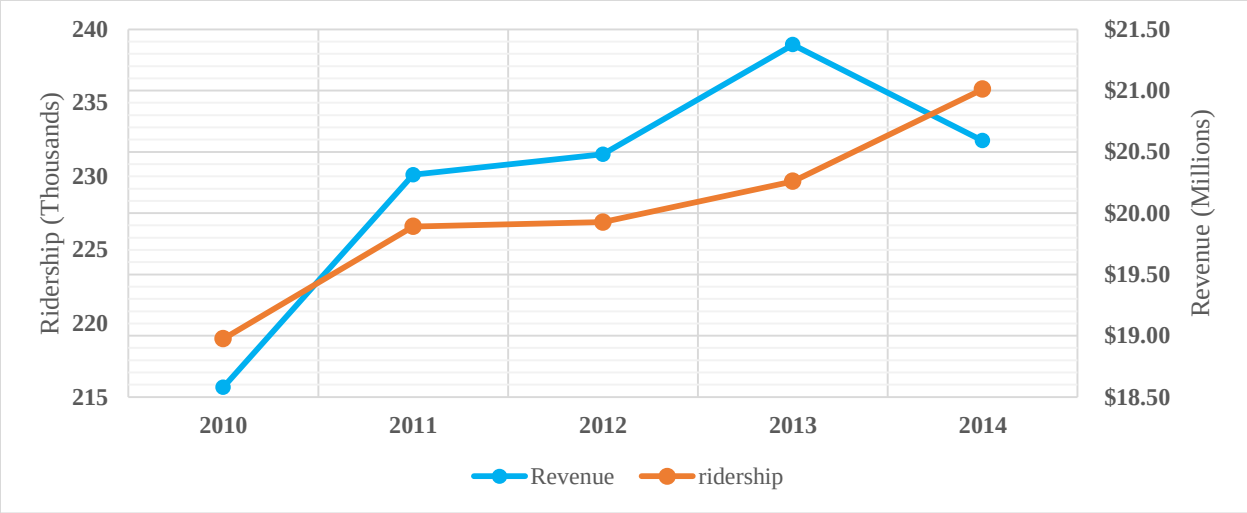

Figure 2.1.34 Ridership vs Revenue for the Capitol Limited Route

On-Time Performance

In January 2017, the Capitol Limited Route's endpoint on-time performance was 66.1 percent, which is steady for the last 12 months. Train interference (55.5 percent of all delay minutes), operational issues (20.2 percent), and track and signal issues (15.3 percent) were the primary causes for delay.[51] Amtrak's Capitol Limited Route crosses the Canadian National at 21st Street and Metra at Englewood Junction. It also crosses the Chicago and Calumet Rivers on movable span bridges. These crossings are in Chicago.

Other Route Characteristics

The California Zephyr Route uses the Park Manor Yard and has a Centralized Traffic Control (CTC) signal system. The track gauge is 4 ft. 8 1⁄2 in (1435 mm).

Cardinal Route

Amtrak operates three trains in each direction on its Cardinal Route between Chicago (Union Station) and New York City. The Cardinal Route serves 32 cities in Illinois, Indiana, Kentucky, West Virginia, Virginia, Washington, D.C., Maryland, Delaware, Pennsylvania, New Jersey and New York.

This route spans 1,147 miles from Chicago to New York City over tracks that the Norfolk Southern, CSX, Buckingham Branch Railroad and Amtrak own. Each of these rail segments are shown in the figure below.

Cardinal Route trains leave Chicago Union Station on Tuesdays, Thursdays, and Saturdays and arrive in New York City on Wednesdays, Fridays, and Sundays. These trains depart New York City on Sundays, Wednesdays, and Fridays and arrive at Chicago Union Station on Mondays, Thursdays, and Saturdays. The Cardinal's travel time from Chicago to New York City is approximately 26.5 hours. Given this route's duration, Amtrak offers first-class sleeper, reserved business class and reserved coach class services. The following figure shows the Cardinal Route:

[51] www.amtrak.com

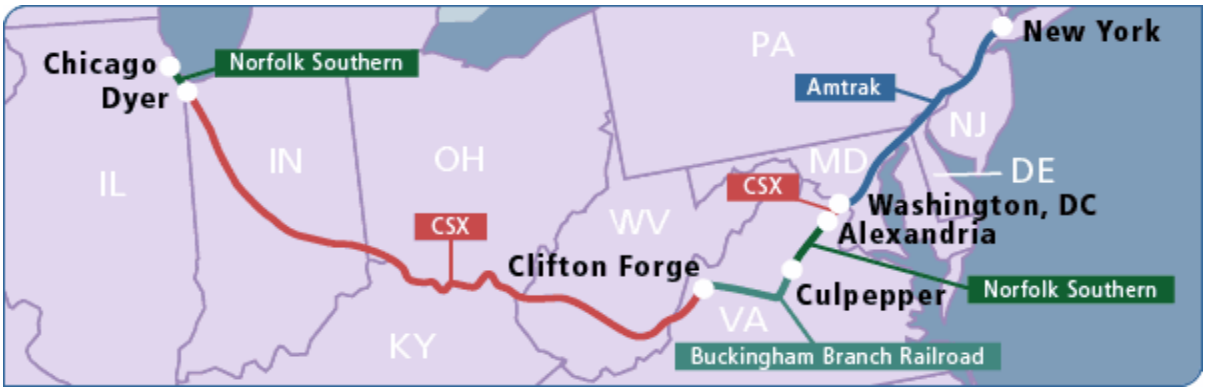

Figure 2.1.35 Cardinal Route (Source: www.amtrak.com)

Ridership & Revenue

Between FY2010 and FY2012, overall ridership rose 8.7 percent from 107,053 passengers to 116,373 passengers. Since that time, overall ridership dropped 9.9 percent to 116,373 passengers (FY2016).

Fare revenues continued to grow from FY2010 to FY2014. It grew 21.8 percent from approximately $6.4 million to almost $7.8 million. The following fiscal year, fare revenues dipped 1.5 percent. (No fare revenue was available at the time of this report for FY2016.) The figure below depicts these trends in ridership and revenue on the Cardinal Route.

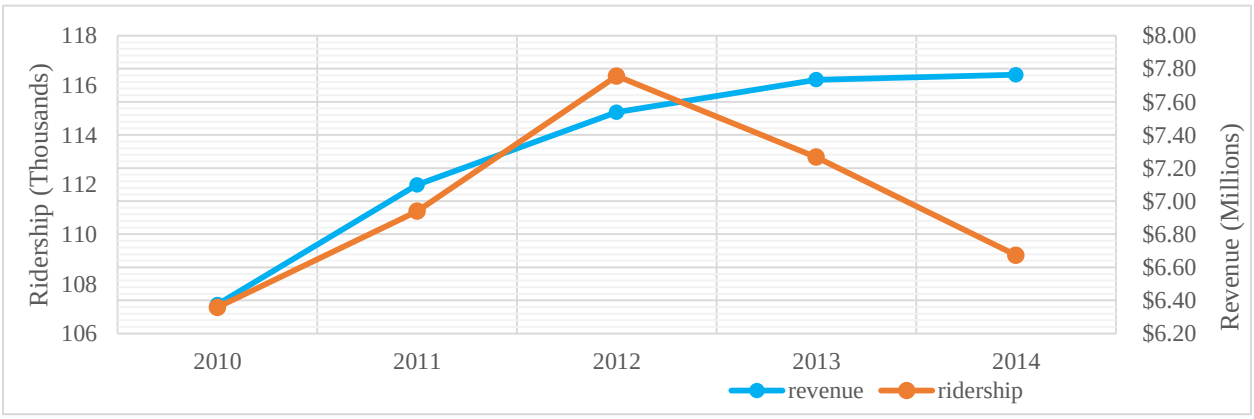

Figure 2.1.36 Ridership vs Revenue for the Cardinal Route

On-Time Performance

In January 2017, the Cardinal Route's endpoint on-time performance was 73.1 percent, which is the average over the last 12 months. Operational issues (28.3 percent of all delay minutes), train interference (27.3 percent), and track and signal issues (23.8 percent) were the primary causes for delay.[52] Amtrak's Cardinal Route respectively crosses the CSX, Indiana Harbor Belt and Norfolk Southern in Dolton. It also crosses the Chicago River on a movable span bridge.

Other Route Characteristics

[52] www.amtrak.com

The Cardinal Route uses Canal Street and 47th Street Yards in Chicago and Yard Center in Dolton and South Holland. This route has a Centralized Traffic Control (CTC) signal system and its track gauge is 4 ft. 8 1⁄2 in (1435 mm).

City of New Orleans Route

Amtrak operates the City of New Orleans once daily in each direction from Chicago (Union Station) to New Orleans. This route serves 19 cities along the route through Illinois, Kentucky, Tennessee, Mississippi and Louisiana, including the other Illinois cities of Homewood, Kankakee, Champaign-Urbana, Mattoon, Effingham, Centralia and Carbondale. This route spans 934 miles respectively over Canadian National tracks from Chicago to New Orleans.

Travel time on the City of New Orleans Route from Chicago to New Orleans is approximately 19 hours. Given this route's length, Amtrak offers coach and first-class sleeper accommodations. This route is shown in Figure 2.1.37.

Figure 2.1.37 City of New Orleans Route (Source: www.amtrak.com)

Ridership & Revenue

Overall ridership increased 12 percent from 229,270 passengers in FY2010 to 256,816 passengers in FY2013. Since that time, overall ridership fell 3 percent to 248,960 passengers in FY2016.

Fare revenues steadily increased 24.3 percent from approximately $17.2 million in FY2010 to approximately $21.4 million in FY2013. Since that time, fare revenue decreased 9.4 percent to approximately $19.4 million in FY2015. (No fare revenue was available at the time of this report for FY2016.) The figure below depicts these trends in ridership and revenue on the City of New Orleans Route.

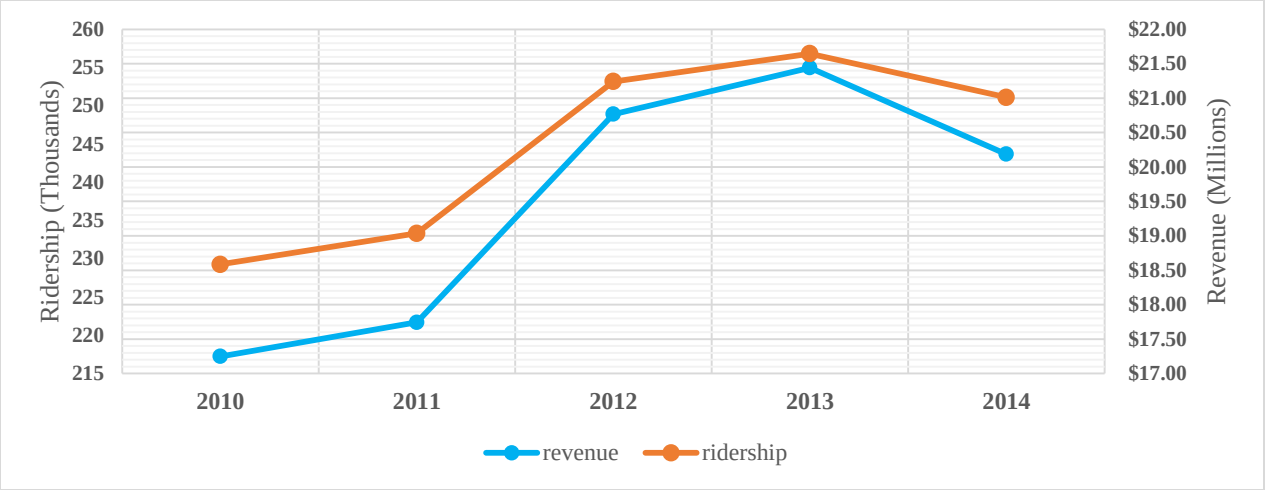

Figure 2.1.38 Ridership vs Revenue for the City of New Orleans Route

On-Time Performance

In January 2017, the City of New Orleans Route's endpoint on-time performance was 72.6 percent, which was steady for the last 12 months. Train interference (54.2 percent of all delay minutes), track and signal operating issues (15.2 percent), and operating issues (8.2 percent) were the primary causes for delay.[53] Amtrak's City of New Orleans respectively crosses Metra at grade at 12th Street and the Canadian National at 21st Street in Chicago; the Norfolk Southern at Kankakee; the Toledo, Peoria & Western Railway in Gilman; the Norfolk Southern in Tolono; a shared track between the CSX, Norfolk Southern and Union Pacific in Tuscola; the CSX in Effingham; the Union Pacific in Kinmundy; the CSX in Odin; a shared track between the Norfolk Southern and Burlington Northern Santa Fe in Centralia; the Evansville Western Railway in Ashley; the Union Pacific in Tamaroa; and the Union Pacific in DeSoto. It also crosses the Chicago River on a movable span bridge.

Other Route Characteristics

The City of New Orleans Route uses Homewood, Kankakee, Champaign, Effingham, Centralia, Aurora-Eola and Galesburg Yards. This route has a Centralized Traffic Control (CTC) signal system and its track gauge is 4 ft. 8 1⁄2 in (1435 mm).

Empire Builder Route

Amtrak operates the Empire Builder Route once daily in each direction from Chicago (Union Station) to Portland and Seattle. Trains on this route split in Spokane, Washington, and either terminate in Seattle or Portland, Oregon. This route serves 46 cities along both routes through Illinois, Wisconsin, Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Besides Chicago Union Station, this route serves Glenview in Illinois.

The Chicago-Seattle route spans 2,206 miles and the Chicago-Portland route spans over 2,257 miles. The Empire Builder uses Metra tracks to Glenview, Canadian Pacific tracks from Glenview to St. Paul- Minneapolis, and Burlington Northern Santa Fe tracks for the remainder or the route.

Travel time on the Empire Builder Route from Chicago to Seattle is approximately 46 hours and 10 minutes, and from Chicago to Portland, Oregon, is approximately 45 hours and 55 minutes. Given

[53] www.amtrak.com

this route's immense length, Amtrak offers Superliner Sleeper and coach accommodations. This route is shown below:

Figure 2.1.39 Empire Builder Route (Source: www.amtrak.com)

Ridership & Revenue

Overall ridership declined 14.8 percent from 533,493 passengers in FY2010 to 454,625 passengers in FY2016. However, this decline has not been steady. Overall ridership increased 15.7 percent (73,905 passengers) in FY2011 and 3.7 percent (16,249 passengers) in FY2016.

Fare revenues declined 13.6 percent from almost $58.5 million in FY2010 to more than $50.5 million in FY2015. Like overall ridership, this decline has not been steady. Fare revenues increased 24 percent (or almost $12.9 million) in FY2012 and 1.1 percent (or $739,626) in FY2013. (No fare revenue was available at the time of this report for FY2016.) The figure below depicts these trends in ridership and revenue on the Empire Builder Route.

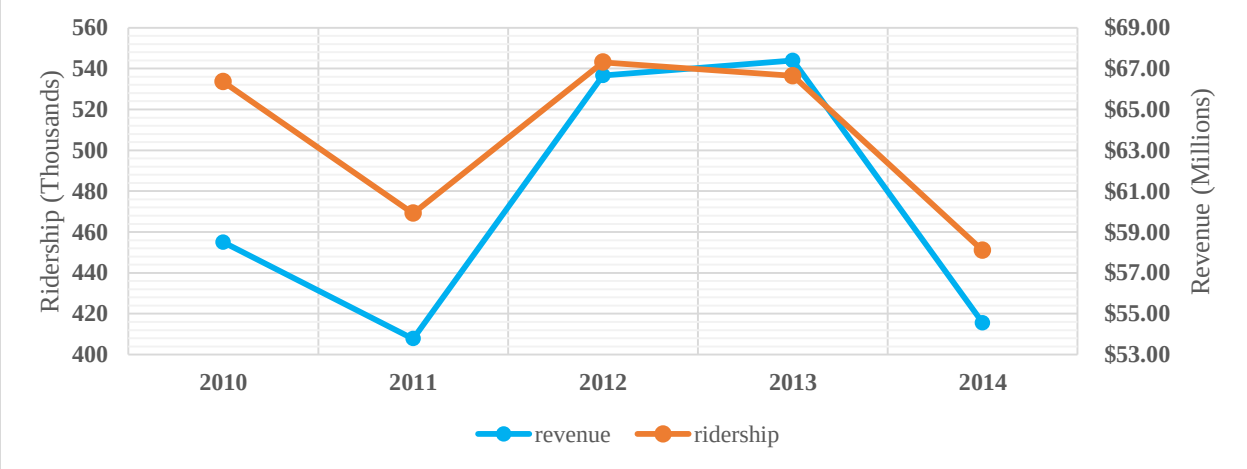

Figure 2.1.40 Ridership vs Revenue for the Empire Builder Route

On-Time Performance

In January 2017, the Empire Builder Route's endpoint on-time performance was 27.0 percent, which was an average over 12 months. Train interference (42.7 percent of all delay minutes), track and signal operating issues (17.6 percent), and passenger issues (14.1 percent) were the primary causes for delay.[54] In Illinois, Amtrak's Empire Builder crosses at grade the Union Pacific at A-2 and Mayfair Junction and the Canadian National at Rondout.

Other Route Characteristics

The Empire Builder Route uses Rondout Yard. This route has a Centralized Traffic Control (CTC) signal system and its track gauge is 4 ft. 8 1⁄2 in (1435 mm). Its average operating speed is 50 mph (80 km/h) and its maximum operating speed is 79 mph (127 km/h).

Lake Shore Limited Route

Amtrak operates one train daily in each direction on the Lake Shore Limited between Chicago (Union Station) and New York City or Boston. These trains either merge together or split into two smaller trains at Albany, New York. One of these smaller trains originates or terminates in Boston (1.017 miles from Chicago) and the other one originates or terminates in New York City (959 miles from Chicago).

Trains take approximately 22 hours and 40 minutes to travel between Chicago and Boston and approximately 20 hours to travel between Chicago and New York City. Given this route's immense length, Amtrak offers Heritage or Viewliner diner cars, Amfleet coaches and lounges, and Viewliner sleeper cars.

Lake Shore Limited trains serve 24 stations in Illinois, Indiana, Ohio, Pennsylvania, New York and Massachusetts. The following figure depicts the Lake Shore Limited Route:

Figure 2.1.41 Lake Shore Limited Route (Source: www.amtrak.com)

The Norfolk Southern owns the tracks between Chicago and Cleveland. The CSXT owns the tracks between Cleveland and Boston and between Albany and Poughkeepsie, New York. The Metro North

[54] www.amtrak.com

Railroad owns the tracks between Poughkeepsie and Yonkers, New York. Amtrak owns the tracks between Yonkers and New York City.

Ridership & Revenue

Overall ridership increased 10.8 percent from 364,460 passengers in FY2010 to 403,700 passengers in FY2012. Thereafter, it steadily dropped to 356,898 passengers in FY2015. It rebounded 8.7 percent to 387,853 passengers in FY2016.

Fare revenues increased 19.6 percent from over $27.5 million in FY2010 to almost $33 in FY2013. In subsequent federal fiscal years, fare revenues for the Lake Shore Limited have decreased 10.5 percent to just under $28.5 million. (No fare revenue was available at the time of this report for FY2016.) The figure below depicts these trends in ridership and revenue on the Illini and Saluki Routes.

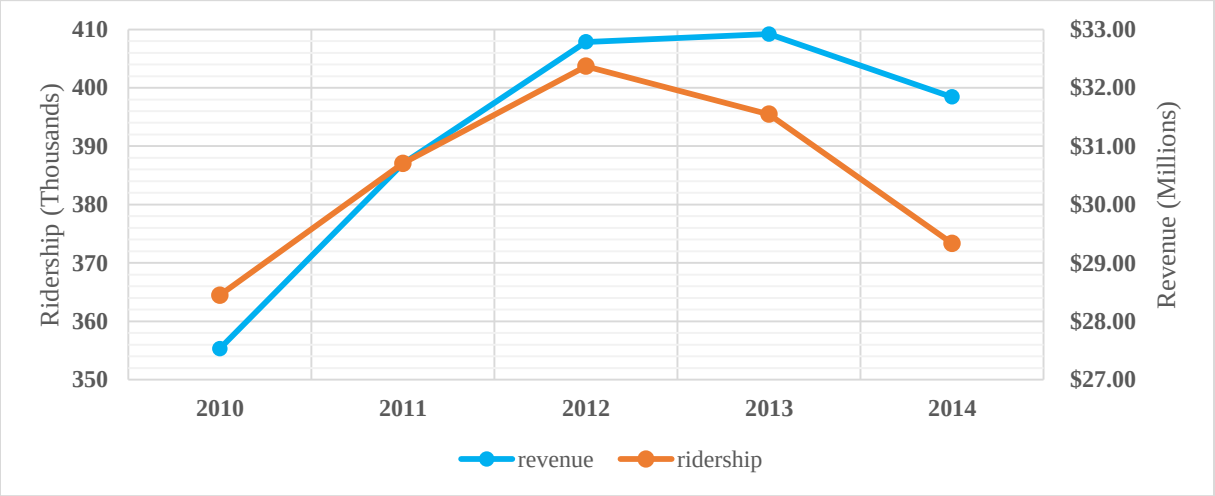

Figure 2.1.42 Ridership vs Revenue for the Lake Shore Limited Route

On-Time Performance

In January 2017, the Lake Shore Limited Route's endpoint on-time performance was 65.3 percent, which was steady for the last 12 months. Train interference (50.5 percent of all delay minutes), passenger issues (14.3 percent) and operational issues (13.9 percent) were the primary causes for delay.[55] In Illinois, Amtrak's Lake Shore Limited Route crosses the Canadian National at grade at 21st Street and Metra at Englewood. The Lake Shore Limited Route also crosses the Chicago and Calumet Rivers using movable span bridges.

Other Route Characteristics

The Lake Shore Limited Route uses the Park Manor Freight Yard in Chicago. This route has a Centralized Traffic Control (CTC) signal system and its track gauge is 4 ft. 8 1⁄2 in (1435 mm).

Southwest Chief Route

Amtrak operates one train daily in each direction on its Southwest Chief Route between Chicago (Union Station) and Los Angeles. The Southwest Chief serves 33 cities in Illinois, Missouri, Kansas,

[55] www.amtrak.com

Colorado, New Mexico, Arizona and California. In Illinois, this route has stops at Naperville, Mendota, Princeton and Galesburg.

This route spans 2,265 miles from Chicago to Los Angeles over tracks that the Burlington Northern Santa Fe Railway owns. The Southwest Chief's travel time from Chicago to Los Angeles is 43 hours and 15 minutes. Given this route's duration, Amtrak offers first-class sleeper, reserved business class and reserved coach class services. The following figure shows the Southwest Chief Route:

Figure 2.1.43 Southwest Chief Route (Source: www.amtrak.com)

Ridership & Revenue

Ridership on the Southwest Chief rose 6.5 percent from 342,403 passengers in FY2010 to 364,748 passengers in FY2016. In FY2013 and FY2016, it decreased less than 1 percent (-0.9 percent in FY2013 and -0.7 percent in FY2016).

Fare revenue increased 7.9 percent from over $41.6 million in 2010 to almost $45 million in 2016. In FY2014, fare revenue had decreased 1.1 percent but rebounded the following year. (No fare revenue was available at the time of this report for FY2016.) The figure below depicts these trends in ridership and revenue on Southwest Chief Route.

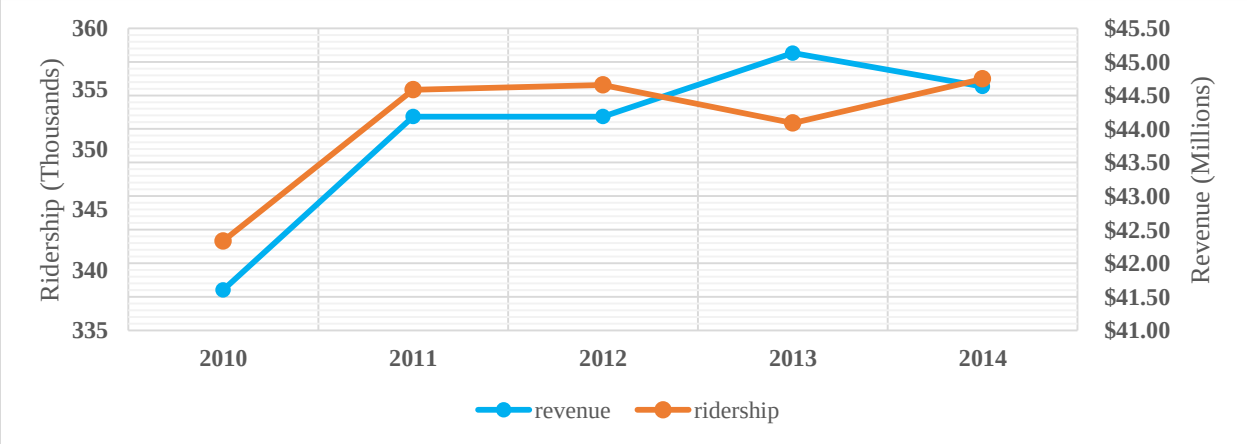

Figure 2.1.44 Ridership vs Revenue for the Southwest Chief Route

On-Time Performance

In January 2017, the Southwest Chief Route's endpoint on-time performance was 72.6 percent, which remained stable over the last 12 months. Track and signal issues (29.3 percent of all delay minutes), operational issues (29.1 percent), and train interference (26.1 percent) were the primary causes for delay.[56] In Illinois, Amtrak's Southwest Chief Route crosses the Union Pacific at grade at Earlville.

Other Route Characteristics

In Illinois, the Southwest Chief Route uses the Cicero, Eola (Aurora) and Galesburg Yards. This route uses a Centralized Traffic Control (CTC) signal system. Its track gauge is 4 ft. 8 1⁄2 in (1435 mm).

Texas Eagle Route

Amtrak operates one train daily in each direction on its Texas Eagle Route between Chicago (Union Station) and San Antonio. Trains on this route continue onto Los Angeles three days a week. Trains depart San Antonio on Tuesday, Thursday, and Saturday and depart Los Angeles on Sunday, Wednesday, and Friday.

Texas Eagle trains serve 41 stations in Illinois, Missouri, Arkansas, Texas, New Mexico, Arizona and California. In Illinois, trains on this route stop at the following intermediate stations: Joliet, Pontiac, Normal-Bloomington, Lincoln, Springfield, Carlinville and Alton.

This route spans 1,306 miles (2,102 km) from Chicago to San Antonio, or 2,265 miles from Chicago to Los Angeles, over tracks that the Canadian National, Union Pacific and Burlington Northern Santa Fe own. The Texas Eagle Route's travel time from Chicago to San Antonio is approximately 32 hours 10 minutes and its travel time from Chicago to Los Angeles is 65 hours 50 minutes. Given this route's duration, Amtrak offers reserved coach service and Superliner roomettes and bedrooms. The following figure shows the Texas Eagle Route:

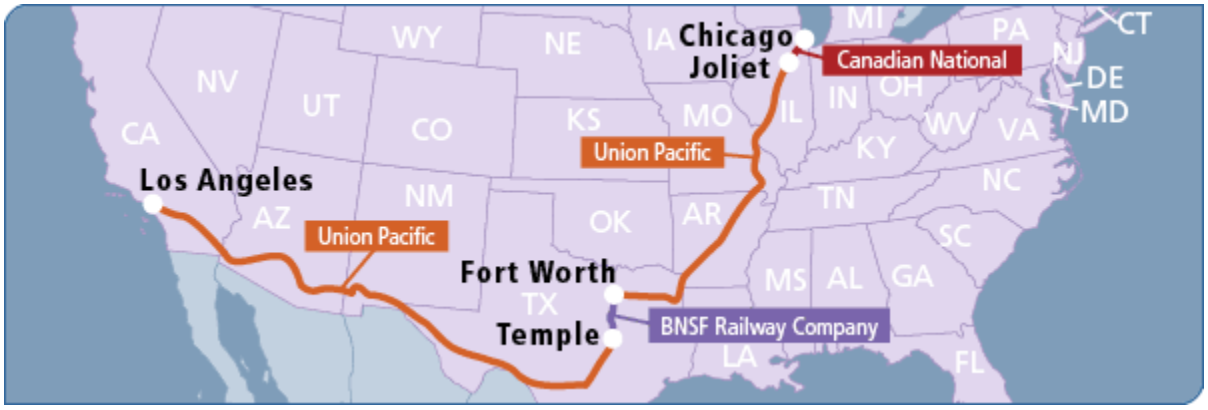

Figure 2.1.45 Texas Eagle Route (Source: www.amtrak.com)

[56] www.amtrak.com

Ridership & Revenue

Ridership on the Texas Eagle Route rose 10.5 percent from 287,164 passengers in FY2010 to 317,282 passengers in FY2016. Ridership climbed upward for all federal fiscal years except FY2015, when ridership dropped 8.8 percent to 317,282 passengers.

Fare revenue increased 2.7 percent from approximately $22.7 million in FY2010 to almost $27.7 million in FY2013. Since that time, fare revenue fell 11.7 percent to approximately $24.4 million in FY2015. (No fare revenue was available at the time of this report for FY2016.) The figure below depicts these trends in ridership and revenue on Texas Eagle Route.

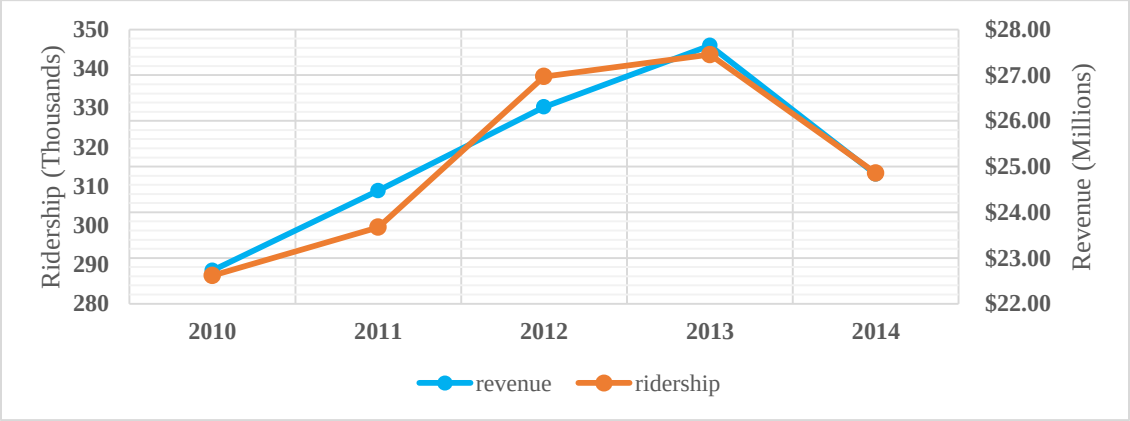

Figure 2.1.46 Ridership vs Revenue for the Texas Eagle Route

On-Time Performance

In January 2017, the Texas Eagle Route's endpoint on-time performance was 72.6 percent, which remained stable over the last 12 months. Train interference (29.8 percent of all delay minutes), operational issues (28.6 percent), and track and signal issues (19.8 percent) were the primary causes for delay.[57] In Illinois, the Texas Eagle Route crosses at grade a track shared between the Norfolk Southern and the CSXT at Brighton Park; a shared track between the Canadian National and the Burlington Northern at Corwith; the Belt Railway of Chicago at Lemoyne; the Indiana Harbor Belt at Canal/Argo; a shared track among Metra, the CSXT and the Iowa Interstate Railroad; the Norfolk Southern at Dwight; the Toledo, Peoria and Western at Chenoa; the Norfolk Southern at Bloomington; the Canadian National at Lincoln (6M 156); the Illinois & Midland Railroad at Springfield (6M183); the Burlington Northern Santa Fe at Girard; and the Norfolk Southern at Wood River, Lenox Tower and WR Tower. The Lincoln Service also crosses the Chicago River using a movable span bridge.

Other Route Characteristics

In Illinois, the Texas Eagle Route uses the Bridgeport, Corwith, Glenn, Argo, Joliet, Global IV, Bloomington, Ridgely, Wood River and Granite City Freight Yards. This route has Automatic Block Signal (ABS) and Centralized Traffic Control (CTC) signal systems. Its track gauge is 4 ft. 8 1⁄2 in (1435 mm).

[57] www.amtrak.com

Commuter Rail

Metra and the Northern Indiana Commuter Transportation District (NICTD) provide commuter rail service within Illinois. Metra oversees all commuter rail operations within Northeastern Illinois (except for the Hegewisch Station, which is on the Northern Indiana Commuter Transportation District's South Shore Line). Metra is responsible for day-to-day operations, fare and service levels, capital improvements, and planning. The Metra system is comprised of 11 separate lines radiating out of Chicago's Loop with 241 stations in more than 100 communities. The figure below shows Metra and the Northern Indiana Commuter Transportation District's rail network. Metra operates these rail lines with 488 route miles. It uses 1,100 miles of track, 800 bridges and 2,000 signals each weekday.[58]

58 https://metrarail.com/sites/default/files/assets/metra_state_of_the_system_2016_reduced.pdf

The Northern Indiana Commuter Transportation District (NICTD) operates the South Shore Line, which serves Chicago's southeast side, northwestern and north central Indiana, and southwestern Michigan.

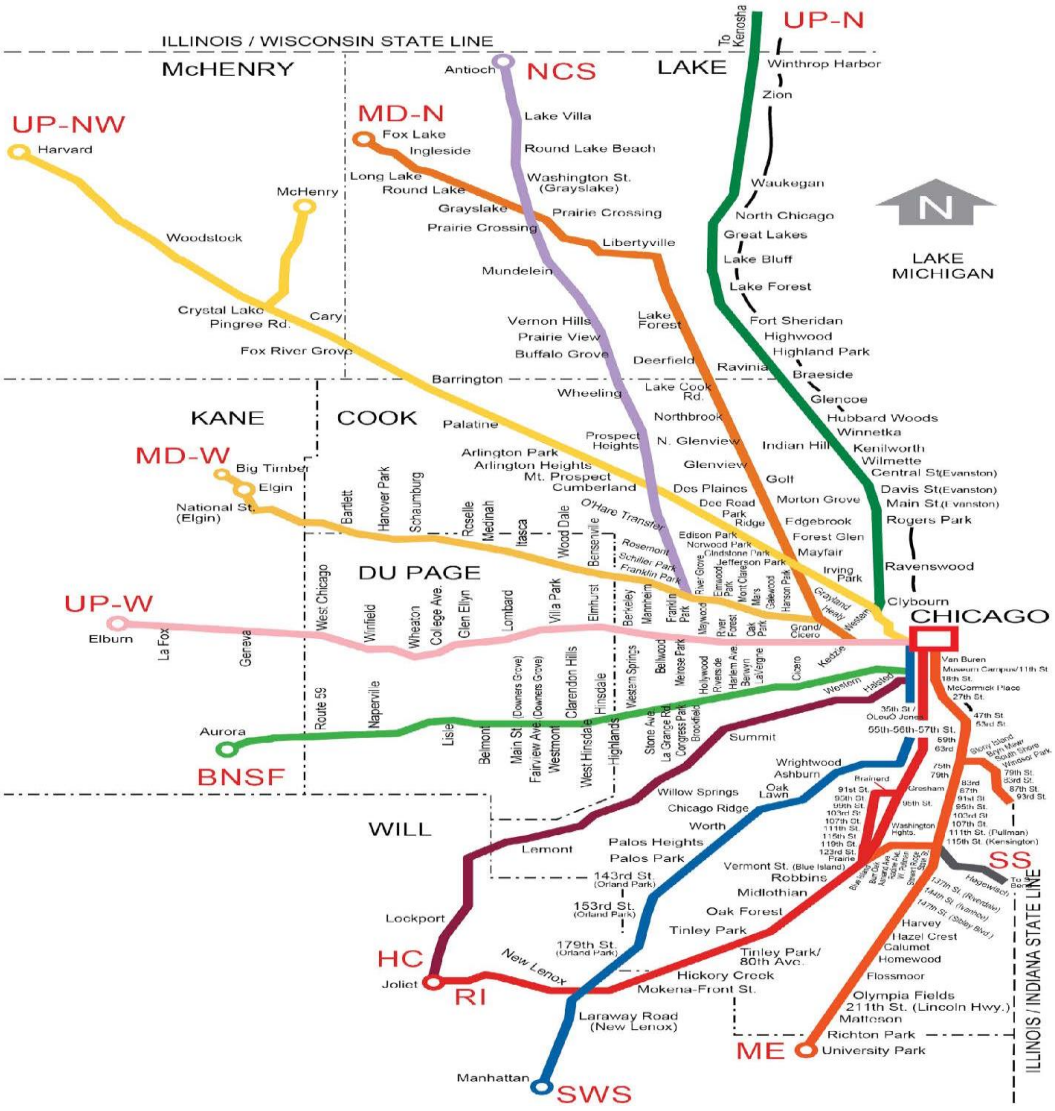

Figure 2.1.47 Metra and Northern Indiana Commuter Transportation District Networks

The Figure below displays each commuter rail line's number of branches, revenue route length, number of stations, number of trains operating, on-time performance, inbound and outbound boarding, number of stations with CTA bus service, number of stations with Pace bus service, average trip length per mile (2014), and average fare for each Metra line and the South Shore.

Table 2.1.7 Metra Physical Description – Part I [59] [60]

Line Name	Total Route Miles	Owning Railroad Name	Signal System	Overhead Traction Power System?	Name of Chicago Terminal	Name of Other Terminal	No. of Commuter Rail Stations in Illinois
Union Pacific North	51.6	UP	CTC, ABS, and ATS	No	Ogilvie Transportation Center	Kenosha (Wisconsin)	26
Milwaukee District North	49.5	Metra, CP and WSR	CTC	No	Chicago Union Station	Fox Lake	22
North Central Service	52.8	Metra (Chicago Union Station to River Grove) and CN (beyond River Grove)	CTC	No	Chicago Union Station	Antioch	18
Union Pacific Northwest	70.5	UP	CTC, CBS, ABS, ATS and No-Signal System	No	Ogilvie Transportation Center	Harvard or McHenry	23
Milwaukee West	39.8	Metra (CP Rail Dispatches)	CTC	No	Chicago Union Station	Big Timber Road	22
Union Pacific West	43.6	UP (Leased to Metra)	CTC and ATC	No	Ogilvie Transportation Center	Elburn	19
Burlington Northern Santa Fe	37.5	BNSF (Leased to Metra)	CTC	No	Chicago Union Station	Aurora	26
Heritage Corridor	37.2	Metra and CN	ABS and CTC	No	Chicago Union Station	Joliet	6
SouthWest Service	40.8	NS (Leased to Metra)	CTC	No	Chicago Union Station	Manhattan	13
Rock Island District	46.8	Metra (LaSalle Station to Blue Island) and CSX (Beyond Blue Island)	CTC/CBS/No Signals	No	LaSalle Street	Joliet	26
Metra Electric District	40.8	Metra	ABS and CTC	Yes	Millennium Station	University Park	49
South Shore Line	89.7	NICTD and Metra	ABS and CTC	Yes	Millennium Station	South Bend Airport (Indiana)	8

[59] https://metrarail.com/sites/default/files/assets/etra_state_of_the_system_2016_reduced.pdf
[60] http://www.rtams.org/rtams/metraRailLines.jsp

Table 2.1.8 Metra Physical Description – Part II

Line Name	Name of Commuter Rail Stations in Illinois	No. Railroads Crossed At Grade	Location(s) of At-Grade Railroad Crossings	Location(s) of Movable Span Bridges	No. of Commuter Rail Yards	Location of Commuter Rail Yards in Illinois	Track Gauge
Union Pacific North	Ogilvie Transportation Center, Clybourn, Ravenswood, Rogers Park, Evanston Main Street, Evanston Davis Street, Evanston Central Street, Wilmette, Kenilworth, Indian Hill, Winnetka, Hubbard Woods, Glencoe, Braeside, Ravinia Park, Ravinia, Highland Park, Highwood, Fort Sheridan, Lake Forest, Lake Bluff, Great Lakes, North Chicago, Waukegan, Zion and Winthrop Harbor	1	CP at Clybourn	Deering at the North Branch of the Chicago River	1	Rondout	4 ft. 8 1/2 inches
Milwaukee District North	Chicago Union Station, Western Avenue, Healy, Grayland, Mayfair, Forest Glen, Edgebrook, Morton Grove, Golf, Glenview, Northbrook, Lake Cook Road, Deerfield, Lake Forest, Libertyville, Prairie Crossing, Grayslake, Round Lake, Long Lake, Ingleside and Fox Lake	4	UP at A-2 and Mayfair and CN at Rondout and Prairie Crossing	None	1	Rondout	4 ft. 8 1/2 inches
North Central Service	Chicago Union Station, Western Avenue, River Grove, Belmont Avenue, Schiller Park, Rosemont, O'Hare Transfer, Prospect Heights, Wheeling, Buffalo Grove, Prairie View, Vernon Hills, Mundelein, Prairie Crossing, Washington Street, Round Lake Beach, Lake Villa and Antioch	4	UP at A-2 and Deval, Metra at Prairie Crossing, and CN at Leithon	None	2	Galewood and Schiller Park	4 ft. 8 1/2 inches
Union Pacific Northwest	Ogilvie Transportation Center, Clybourn, Irving Park, Jefferson Park, Gladstone Park, Norwood Park, Edison Park, Park Ridge, Dee Road, Des Plaines, Cumberland, Mount Prospect, Arlington Heights, Arlington Park, Palatine, Barrington, Fox River Grove, Cary, Pingree Road, Crystal Lake, Woodstock, McHenry and Harvard	5	CP at Clybourn, Metra at Mayfair, CN at Deval, Shared Track Between UP and CP at Deval, and CN at Barrington	None	1	North Avenue	4 ft. 8 1/2 inches
Milwaukee West	Chicago Union Station, Western Avenue, Grand/Cicero, Mars, Mont Clare, Elmwood Park, River Grove, Franklin Park, Mannheim, Bensenville, Wood Dale, Itasca, Medinah, Roselle, Schaumburg, Hanover Park, Bartlett, National Street, Elgin and Big Timber Road	3	UP at A-2 and CN at B-12 and Spaulding	None	2	Galewood and Bensenville	4 ft. 8 1/2 inches
Union Pacific West	Ogilvie Transportation Center, Kedzie, Oak Park, River Forest, Maywood, Melrose Park, Bellwood, Berkeley, Elmhurst, Villa Park, Lombard, Glen Ellyn, College Avenue, Wheaton, Winfield, West Chicago, Geneva, LaFox and Elburn	2	Metra at A-2 and CN at West Chicago	None	3	California Avenue, Proviso, and West Chicago	4 ft. 8 1/2 inches

Table 2.1.8 Metra Physical Description – Part II (Continued)

Line Name	Name of Commuter Rail Stations in Illinois	No. Railroads Crossed At Grade	Location(s) of At-Grade Railroad Crossings	Location(s) of Movable Span Bridges	No. of Commuter Rail Yards	Location of Commuter Rail Yards in Illinois	Track Gauge
Burlington Northern Santa Fe	Chicago Union Station, Halsted, Western Avenue, Cicero, Berwyn, Harlem Avenue, Riverside, Hollywood, Brookfield, Congress Park, LaGrange Road, LaGrange Stone Avenue, Western Springs, Highlands, Hinsdale, West Hinsdale, Clarendon Hills, Westmont, Fairview Avenue, Downers Grove Main Street, Belmont, Lisle, Naperville, Route 59 and Aurora	None	None	None	2	Cicero and Eola-Aurora	4 ft. 8 1/2 inches
Heritage Corridor	Chicago Union Station, Summit, Willow Springs, Lemont, Lockport and Joliet	5	Shared Track Between NS and CSX at Brighton Park, Shared Track Between CN and BNSF at Corwith, BRC at Lemoyne, IHB at Canal/Argo, and Shared Track Among Metra, CSX, and IAIS at Joliet	21st Street at the Chicago River	5	Bridgeport, Corwith, Glenn, Argo, and Joliet	4 ft. 8 1/2 inches
SouthWest Service	Chicago Union Station, Wrightwood, Ashburn, Oak Lawn, Chicago Ridge, Worth, Palos Heights, Palos Park, Orland Park 143rd Street, Orland Park 153rd Street, Oarland Park 179th Street, New Lenox, Laraway Road and Manhattan	5	CN at Chicago, BRC at Belt Junction, CSX at 75th Street, CN at Ashburn, and IHB at Chicago Ridge	21st Street at the Chicago River	4	Canal Street, 47th Street, Rockwell, and Landers	4 ft. 8 1/2 inches
Rock Island District	LaSalle Street, 35th Street, Gresham, 95th Street, 103rd Street, Brainerd, Beverly Hills-91st Street, Beverly Hills-95th Street, Beverly Hills-99th Street, Beverly Hills-103rd Street, Beverly Hills-107th Street, Morgan Park-111th Street, Morgan Park-115th Street, 119th Street, 123rd Street, Prairie Street, Blue Island, Robbins, Midlothian, Oak Forest, Tinley Park, Tinley Park-80th Avenue, Hickory Creek, Mokena, New Lenox and Joliet	3	St. Charles Airline at 16th Street, Shared Track Between CSX and NS at Englewood, and Shared Track Between BNSF and UP at Joliet	None	2	Gresham and Blue Island	4 ft. 8 1/2 inches

Table 2.1.8 Metra Physical Description – Part II (Continued)

Line Name	Name of Commuter Rail Stations in Illinois	No. Railroads Crossed At Grade	Location(s) of At-Grade Railroad Crossings	Location(s) of Movable Span Bridges	No. of Commuter Rail Yards	Location of Commuter Rail Yards in Illinois	Track Gauge
Metra Electric District	Millennium Station; Van Buren Street; Museum Campus/11th Street; 18th Street; McCormick Place; 27th Street; 47th Street; 51st/53rd Street; 55th-56th-57th Street; 59th Street; 63rd Street; 75th Street; 79th Street; 83rd Street; 87th Street; 91st Street; 95th Street; 103rd Street; 107th Street; 111th Street; Kensington/115th Street; Riverdale; Ivanhoe; 147th Street; Harvey; Hazel Crest; Calumet; Homewood; Flossmoor; Olympia Fields; 211th Street; Matteson; Richton Park; University Park; Stony Island; Bryn Mawr; South Shore; Windsor Park; 79th Street (Cheltenham); 83rd Street (South Chicago); 87th Street (South Chicago); 93rd Street (South Chicago); State Street; Stewart Ridge; West Pullman; Racine; Ashland; Burr Oak; and Blue Island	1	South Shore at Kensington	None	None	None	4 ft. 8 1/2 inches
South Shore Line	Millennium Station, Van Buren Street, Museum Campus/11th Street, McCormick Place, 56th Street, 63rd Street, Kensington/115th Street and Hegewisch	5	Metra at Kensington, a Shared Track Between the NS and IHB at Burnham, the NS at Gary and Michigan City, and the CSS at Michigan City	None	1	Burnham	4 ft. 8 1/2 inches

Metra Route Descriptions

In 1974, the Illinois General Assembly created the Regional Transportation Authority to coordinate public transportation throughout Chicago's metropolitan region. The Regional Transportation Authority created the Northeast Illinois Regional Commuter Railroad Corporation (NIRC) in the early 1980s to operate commuter service on rail lines threatened by private carrier bankruptcy and line sales. The Northeast Illinois Regional Commuter Railroad Corporation began operating commuter services on the bankrupt Rock Island Railroad in June 1981 and on the former Milwaukee Road commuter rail lines a year later. In 1983, the Regional Transportation Authority was reorganized to provide three service boards responsible for day-to-day operations of system-wide bus, rapid transit and commuter rail service. In 1984, the Commuter Rail Service Board introduced "Metra" as the service mark for their commuter rail system.

Today, Metra directly operates seven of its lines and contracts with two freight carriers, the Burlington Northern Santa Fe Railway and the Union Pacific Railroad, to run four others. Under Purchase of Service Agreements (PSAs), the freight carriers use their employees and own or control the rights of way and most of the other facilities required for operations. Metra owns the rolling stock and controls fares, service and staffing levels.

Before the Regional Transportation Authority was created, communities along four of the Chicago area's commuter lines formed "Suburban Mass Transit Districts" to get federal and state funding for

new equipment and other improvements. The North and Northwest Suburban Mass Transit Districts were dissolved, but the West Suburban Mass Transit District and the Chicago South Suburban Mass Transit District still exist. They participate in planning activities for the Burlington Northern Santa Fe Line and Metra Electric District Line, respectively.

In November 2011, Metra's Board of Directors approved a fare increase across all ticket types and various other changes to Metra's fare policies. Monthly passes increased an average of 29.4 percent, 10-ride tickets increased an average of 30 percent, and one-way tickets increased an average of 15.7 percent across all fare zones. This fare increase began February 1, 2012. System-wide ridership has increased overall since then. The following sections provide a general description of Metra's lines and the South Shore; more detailed information is available on Metra's website www.metrarail.com.

Union Pacific North Line

The Union Pacific North Line extends 51.6 route miles from Chicago's Ogilvie Transportation Center to Kenosha, Wisconsin. Figure 2.1.48 shows this line's 27 stations, which are the following: Ogilvie Transportation Center, Clybourn, Ravenswood, Rogers Park, Evanston Main Street, Evanston Davis Street, Evanston Central Street, Wilmette, Kenilworth, Indian Hill, Winnetka, Hubbard Woods, Glencoe, Braeside, Ravinia Park, Ravinia, Highland Park, Highwood, Fort Sheridan, Lake Forest, Lake Bluff, Great Lakes, North Chicago, Waukegan, Zion and Winthrop Harbor. These stations are within two miles of Lake Michigan.

The Union Pacific Railroad owns and operates the Union Pacific North Line under a purchase of service agreement with Metra. It operates 35 trains on this line in each direction on weekdays, 13-14 trains on this line on Saturdays, and 9-10 trains on this line on Sundays. The additional northbound train on Saturdays and Sundays primarily serves people from Chicago and its close-in suburbs to concerts at Ravinia.

The frequent weekday service reflects recently added peak-period service designed to accommodate dramatic ridership increases among traditional and reverse commuters. Growth within Chicago's northern lakefront neighborhoods and Evanston has likely bolstered traditional ridership. Growing enrollments at the area's colleges, a robust market for domestic help and vibrant commercial districts surrounding many of these stations likely increase this line's reverse commute ridership. Many of these picturesque commercial districts are over a century old.

The Metra Union Pacific North Line only has freight service from Waukegan north to Kenosha.

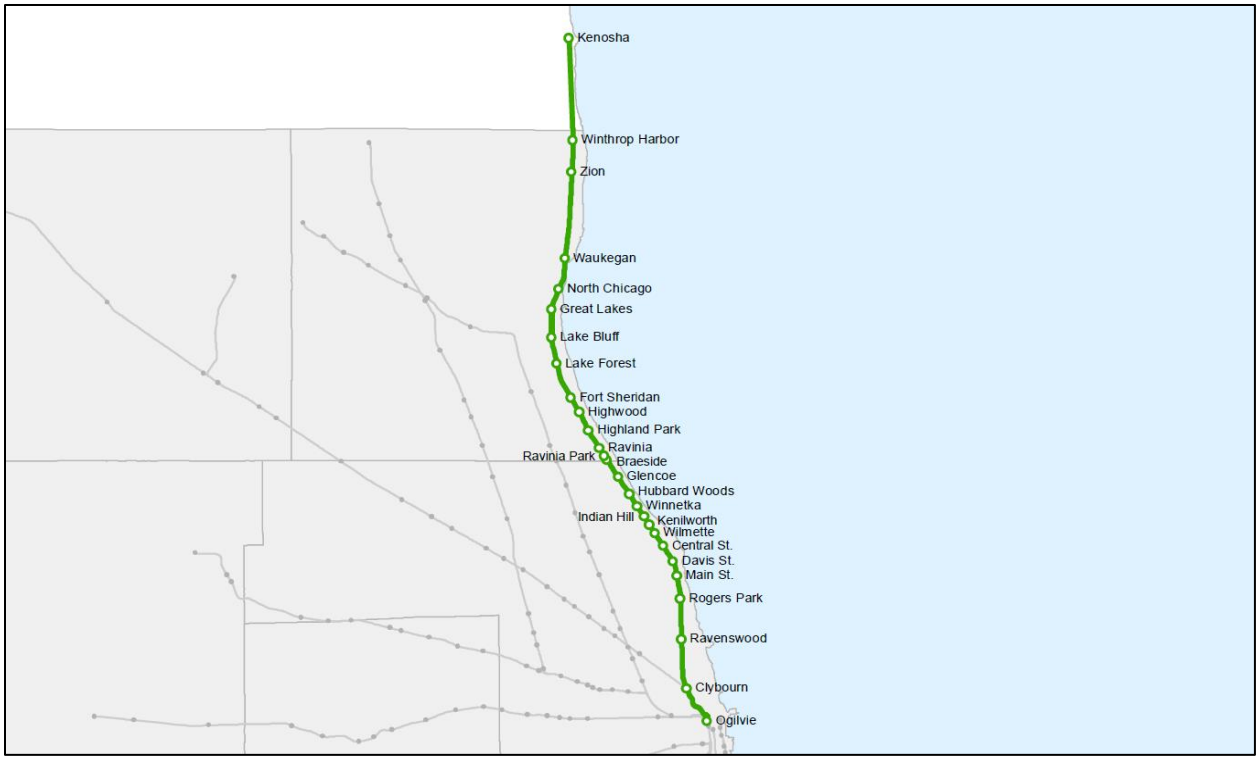

Figure 2.1.48 Metra Stations on the Union Pacific North Line

Ridership

In 2009, ridership on the Union Pacific North Line peaked at 9,839,792 riders and then dropped off during and shortly after the Great Recession. Between 2012 and 2016, ridership on the Union Pacific North Line has remained steady. The following figure depicts ridership trends on the Union Pacific North Line between 2002 and 2016.

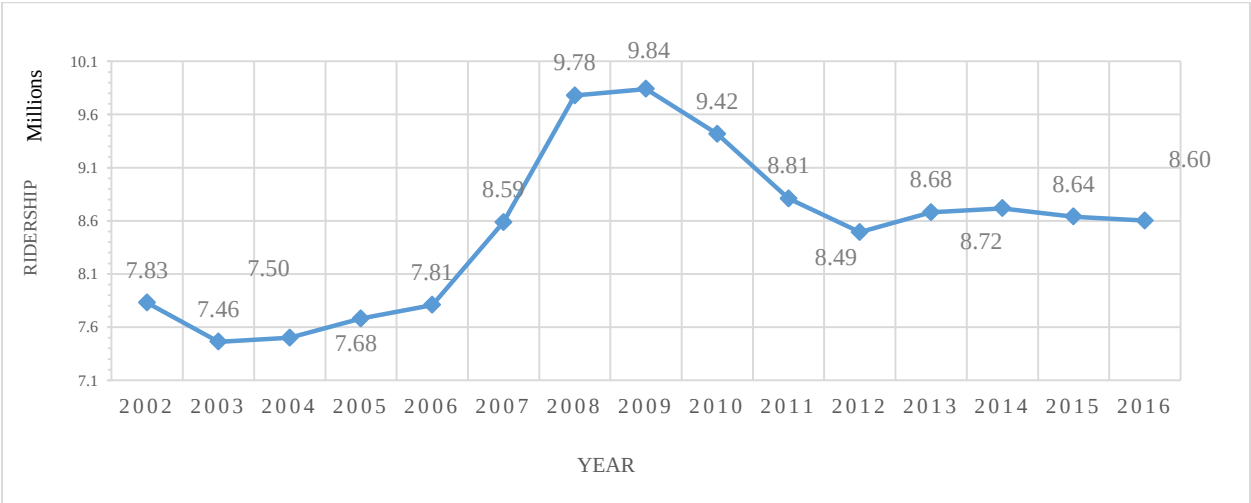

Figure 2.1.49 Ridership Trends on Union Pacific North Line

On-Time Performance

In 2016, the Union Pacific North Line's average on-time performance was 97.8 percent. The lack of freight on most of this line likely helped the Union Pacific achieve and maintain this high level of on-time performance. The figure below shows average on-time performance over the previous five-year period.

Mechanical failure (84.2), weather (123.4) and passenger loading issues (168) were the primary causes for delay between 2011 and 2015 (average frequency of train delays over previous five years between for period: January – November). The Union Pacific North Line crosses the Canadian Pacific at grade at Clybourn. It also uses a movable span bridge at Deering across the Chicago River's North Branch.

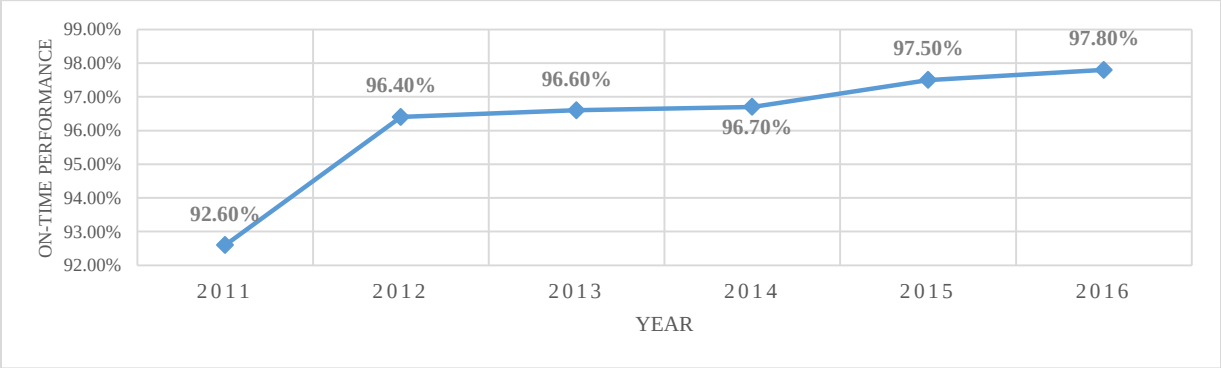

Figure 2.1.50 Average On-time Performance of Union Pacific North Line

Other Route Characteristics

The Union Pacific North Line uses the North Avenue, Waukegan and Kenosha (Wisconsin) Freight Yards. This line uses Centralized Traffic Control (CTC), Automatic Block Signal (ABS) and Automatic Train Stop (ATS) systems. Its track gauge is 4 feet 8 1⁄2 inches (1435 mm).

Milwaukee District North Line

The Milwaukee District North Line extends 51.6 route miles from Chicago's Union Station to Fox Lake, near the Wisconsin border. The map on the left shows this line's 22 stations, which are the following: Chicago Union Station, Western Avenue, Healy, Grayland, Mayfair, Forest Glen, Edgebrook, Morton Grove, Golf, Glenview, North Glenview, Northbrook, Lake-Cook Road, Deerfield, Lake Forest, Libertyville, Prairie Crossing/Libertyville, Grayslake, Round Lake, Long Lake, Ingleside and Fox Lake.

Metra owns and operates the Milwaukee District North Line. It runs 30 northbound trains and 31 southbound trains each weekday, 12 trains in each direction on Saturdays, and 10 trains in each direction on Sundays.

The Canadian Pacific operates their freight services on this line from approximately Western Avenue to Fox Lake and Amtrak operates their Hiawatha and Empire Builder Routes on this line from Union Station to Rondout Junction (just before Metra trains would turn west to Libertyville Station). The Wisconsin and Southern Railway also has trackage rights from Fox Lake into Chicago. Given these

operations, limited crossovers between tracks, and the single-track branch line, Metra faces many obstacles to adding peak-period or reverse-commute services on this line.

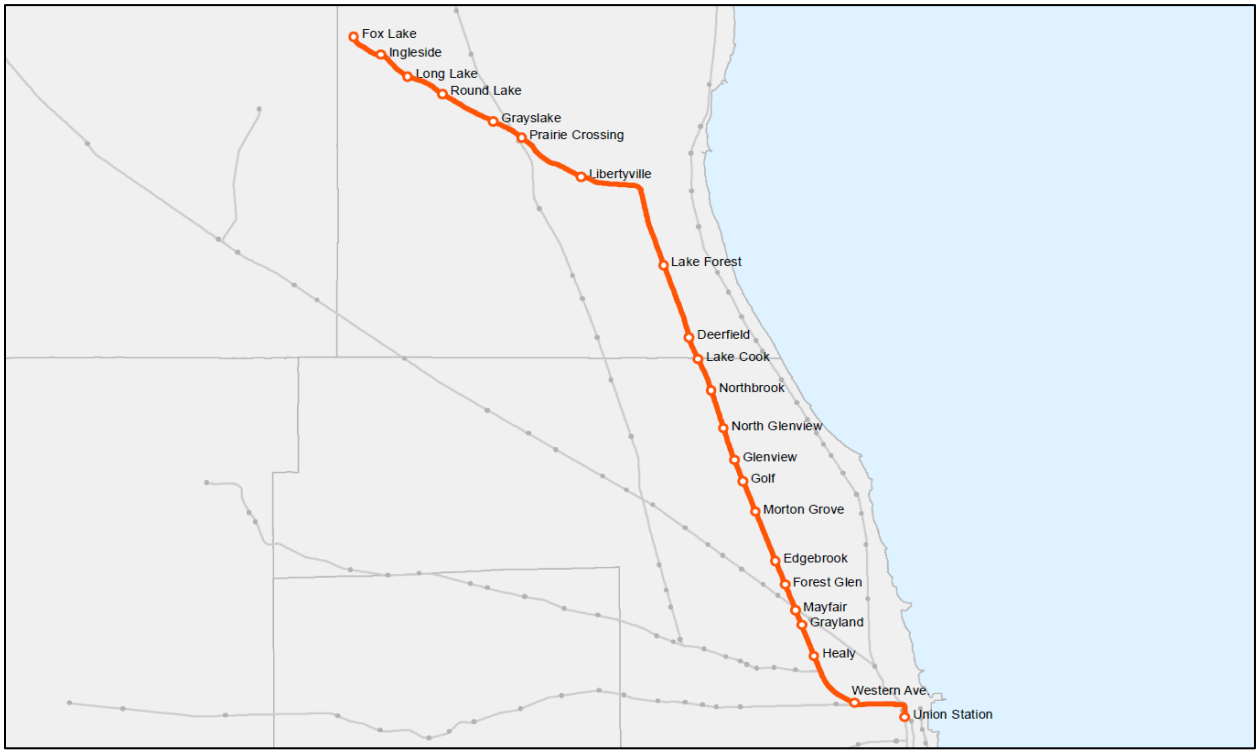

Figure 2.1.51 Metra Stations on the Milwaukee District North Line

Ridership

In 2008, ridership on the Milwaukee District North Line peaked at 7,773,837 riders and then dropped off during and shortly after the Great Recession. Between 2012 and 2016, ridership on the Union Pacific North Line has remained steady. The following figure depicts ridership trends on the Milwaukee District North Line between 2002 and 2016.

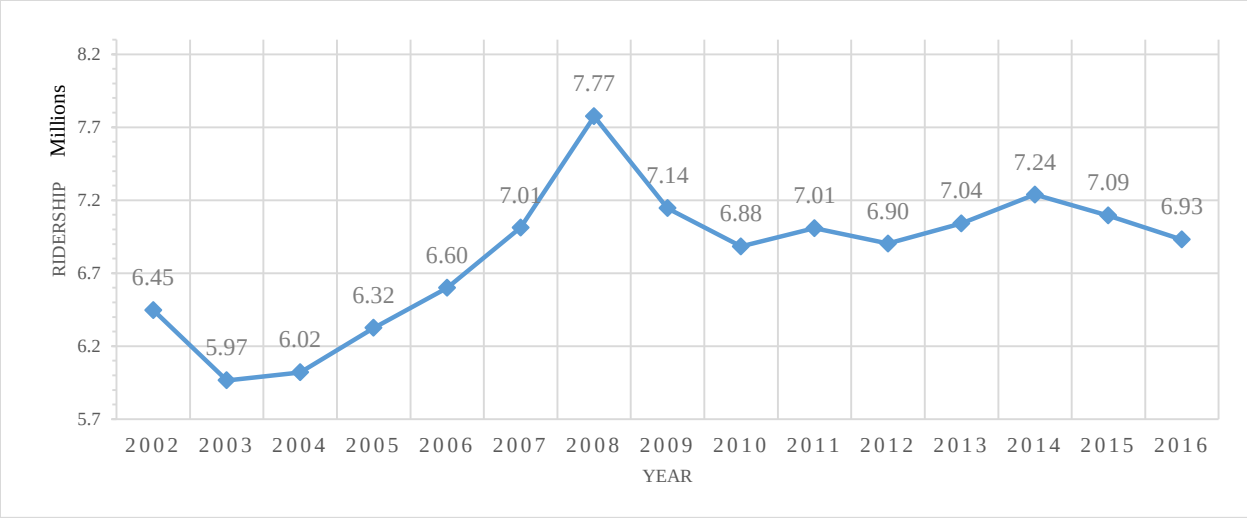

Figure 2.1.52 Ridership Trends on the Milwaukee District North Line

On-Time Performance

In 2016, the Milwaukee District North Line's average on-time performance was 94.7 percent. The figure below shows average on-time performance over the previous five-year period.

Freight interference (159.6), mechanical failure (125) and weather (138.8) were the primary causes for delay between 2011 and 2015 (average frequency of train delays over previous five years between for period: January – November). The Milwaukee District North Line crosses the Union Pacific at grade at A-2 Junction and Mayfair in Chicago and the Canadian National at Rondout and Prairie Crossing.

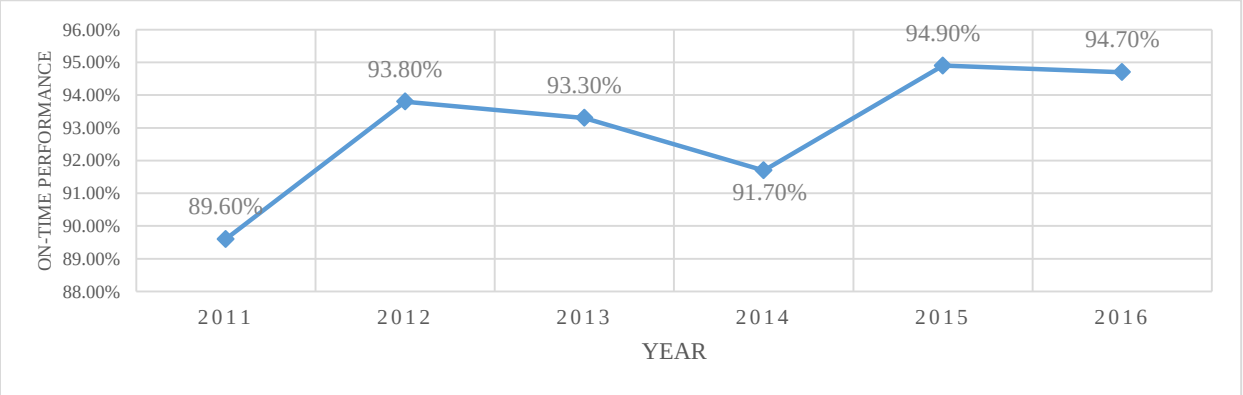

Figure 2.1.53 Average On-time Performance of the Milwaukee District North Line

Other Route Characteristics

The Milwaukee District North Line uses the freight yard at Rondout. This line uses Centralized Traffic Control (CTC). Its track gauge is 4 feet 8 1⁄2 inches (1435 mm).

North Central Service

Metra's North Central Service (NCS) Line extends 52.8 route miles north from Chicago's Union Station to Antioch, near the Wisconsin border. It operates on Metra's Milwaukee District through River Grove and then onto 40 miles of Canadian National (CN) track north of River Grove. The map on the left shows this line's 18 stations, which are the following: Chicago Union Station, Western Avenue, River Grove, Belmont Avenue, Schiller Park, Rosemont, O'Hare, Prospect Heights, Wheeling, Buffalo Grove, Prairie View, Vernon Hills, Mundelein, Prairie Crossing/Libertyville, Washington Street, Round Lake Beach, Lake Villa and Antioch.

Metra owns and operates the North Central Service, which began operations in 1996. It was the region's first new commuter rail line in 70 years. Riders can transfer onto the Milwaukee District West Line at the River Grove Station to reach Chicago's northwest side neighborhoods or northwest suburbs.

Metra operates 11 trains in each direction on weekdays with no service on weekends.

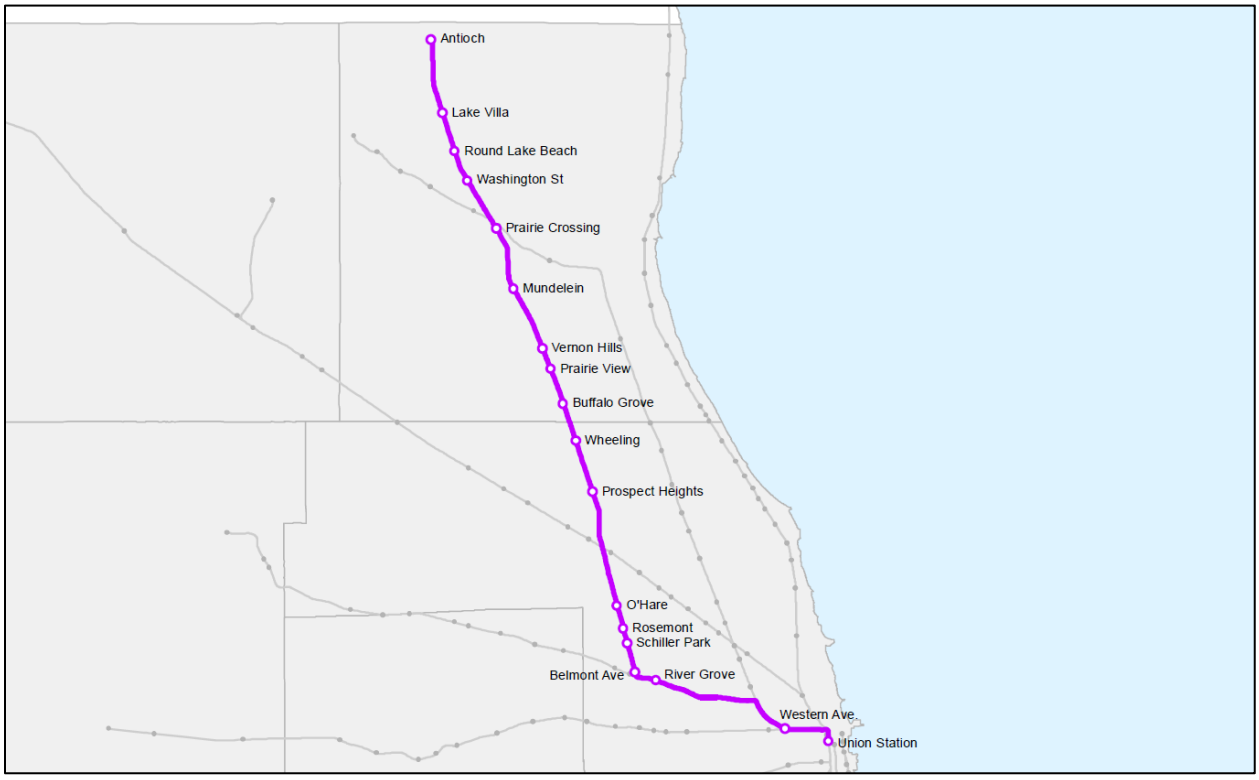

Figure 2.1.54 Metra Stations on the North Central Service

Ridership

In 2014, ridership steadily increased on the North Central Service since its inauguration and peaked at 1,656,847 riders. Since that time, ridership dropped 4.8 percent to 1,577,783 in 2016.

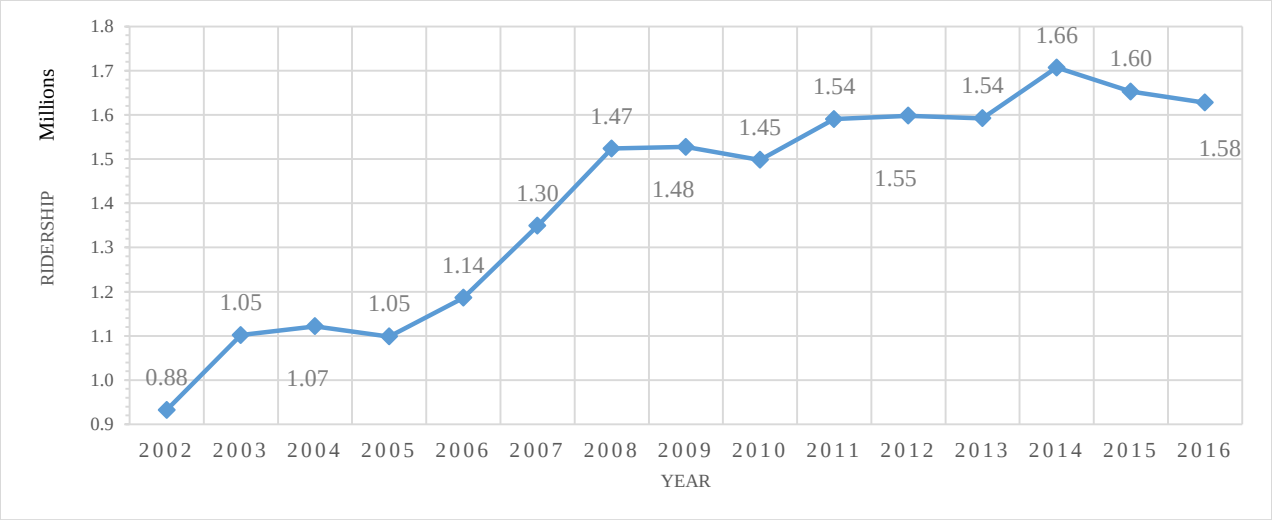

Figure 2.1.55 Ridership Trends on the North Central Service

On-Time Performance

In 2016, the North Central Service's average on-time performance was 94.7 percent. The figure below shows average on-time performance over the previous five-year period.

Freight interference (145.6), signal/switch failure (86.6) and weather (43.6) were the primary causes for delay between 2011 and 2015. The North Central Service crosses the Union Pacific at grade at A-2 and Deval Junctions, Metra's Milwaukee District North Line at Prairie Crossing, and the Canadian National at Leithon Junction.

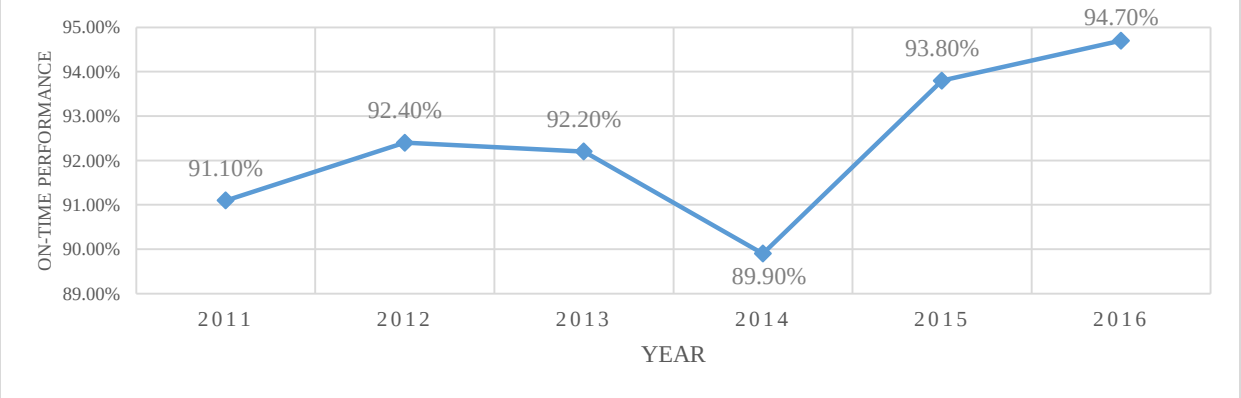

Figure 2.1.56 Average On-time Performance of the North Central Service

Other Route Characteristics

The North Central Service uses freight yards at Galewood and Schiller Park. This line uses Centralized Traffic Control (CTC). Its track gauge is 4 feet 8 1⁄2 inches (1435 mm).

Union Pacific Northwest Line

Metra's Union Pacific Northwest Line extends 61.3 route miles from Ogilvie Station to Harvard or 55.7 miles to McHenry using the McHenry Branch. This is Metra's longest line. The map below shows

this line's 22 stations, which are the following: Ogilvie Transportation Center, Clybourn, Irving Park, Jefferson Park, Gladstone Park, Norwood Park, Edison Park, Park Ridge, Dee Road, Des Plaines, Cumberland, Mount Prospect, Arlington Heights, Arlington Park, Palatine, Barrington, Fox River Grove, Cary, Pingree Road, Crystal Lake, Woodstock, Harvard and McHenry.

The Union Pacific Railroad owns and operates the Union Pacific Northwest Line under a purchase of service agreement with Metra. It operates 33 trains northwest from and 32 trains southeast to Ogilvie Station on weekdays. Most of these trains do not serve either northern terminus, but stop in Crystal Lake. Harvard has 11 trains and McHenry has three trains in each direction on weekdays. These areas still maintain a rural character.

On Saturdays, the Union Pacific runs 12 trains in each direction with nine trains stopping in Harvard and no trains stopping in McHenry. On Sundays, it runs eight trains northwest and seven trains southeast to Ogilvie Station. Seven of these trains run to and from Harvard with no trains running to McHenry.

The Union Pacific Northwest Line has limited freight traffic. However, its signaling system and few crossovers between tracks limit train speeds and operating flexibility.

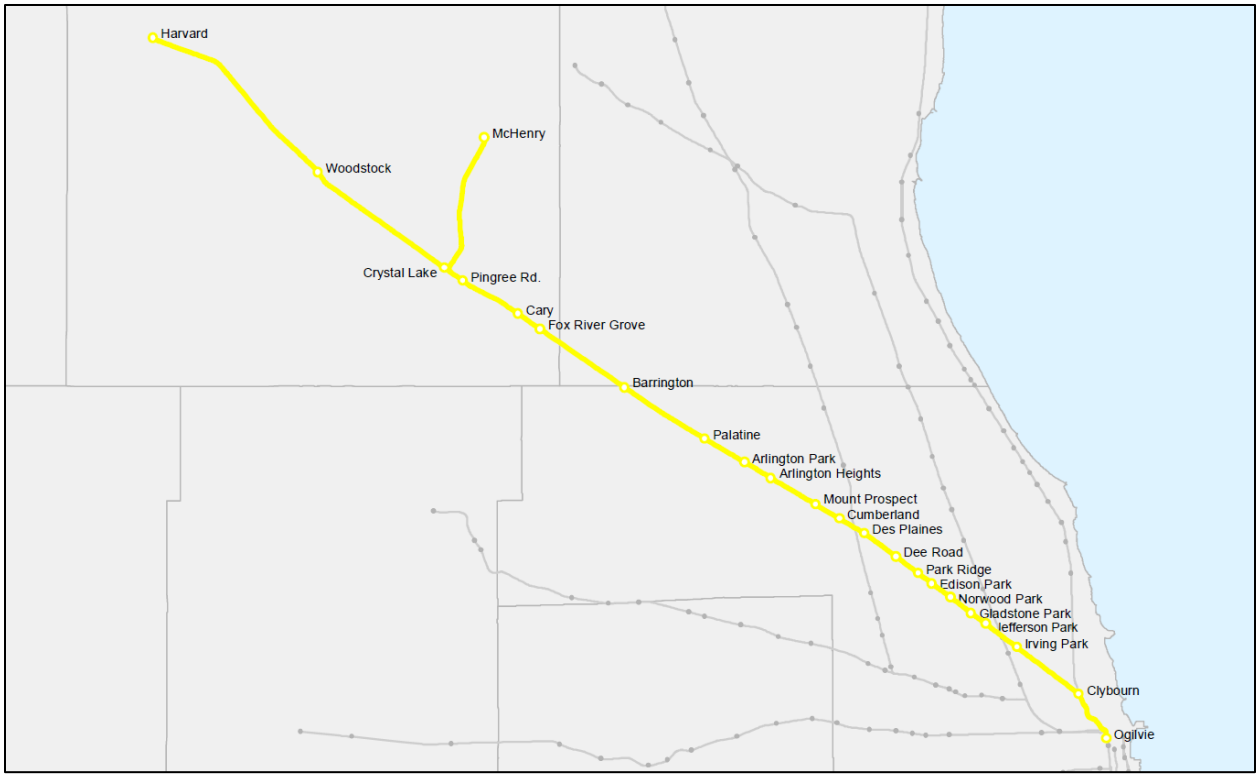

Figure 2.1.57 Metra Stations on the UP-Northwest Line

Ridership

Between 2002 and 2008, ridership on the Union Pacific Northwest Line steadily grew 17 percent to 10,613,388 riders. It then dipped 4.7 percent to 10,110,572 riders in 2009 and rebounded 12.8 percent to 11,409,453 riders five years later. Ridership since that time dipped 3.5 percent to 11,009,423 riders in 2016.

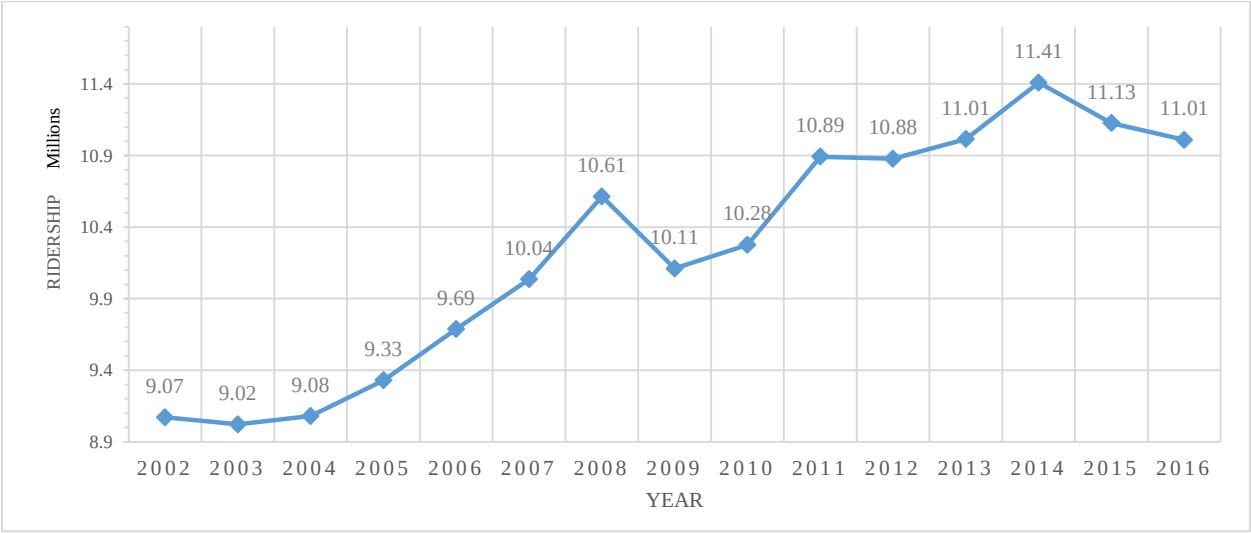

Figure 2.1.58 Ridership Trends on the Union Pacific Northwest Line

On-Time Performance

In 2016, the Union Pacific Northwest Line's average on-time performance was 96.5 percent. The figure below shows average on-time performance over the previous five-year period.

Mechanical failure (93), weather (143.6) and passenger loading (100) were the primary causes for delay between 2011 and 2015. The Union Pacific Northwest Line crosses the Canadian Pacific at grade at Clybourn, Metra at Mayfair, the Canadian National and another track shared between the Union Pacific and the Canadian Pacific at Deval, and the Canadian National at Barrington.

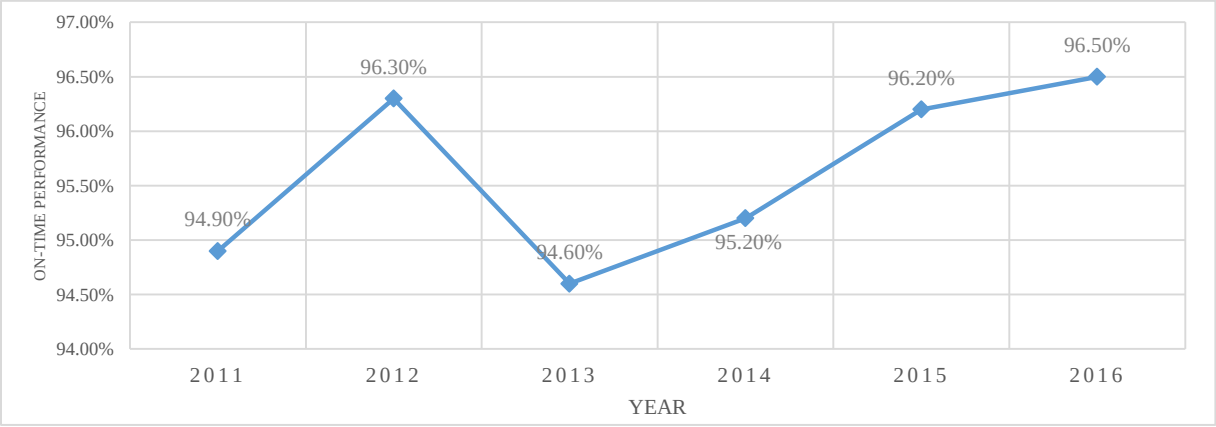

Figure 2.1.59 Average On-time Performance of the Union Pacific Northwest Line

Other Route Characteristics

The Union Pacific Northwest Line uses a freight yard on North Avenue. This line uses Centralized Traffic Control (CTC), Centralized Block Signal (CBS), Automatic Block Signal (ABS) and Automatic Train Stop (ATS) systems. A portion of the track is also not signalized. The Union Pacific Northwest Line's track gauge is 4 feet 8 1⁄2 inches (1435 mm).

Milwaukee District West Line

The Milwaukee District West Line extends 39.8 route miles from Chicago's Union Station to Big Timber (Elgin). The map below shows this line's 21 stations, which are the following: Chicago Union Station, Western Avenue, Grand-Cicero, Hanson Park, Galewood, Mars, Mont Clare, Elmwood Park, River Grove, Franklin Park, Mannheim, Bensenville, Wood Dale, Itasca, Medinah, Roselle, Schaumburg, Hanover Park, Bartlett, National Street, Elgin and Big Timber.

Figure 2.1.60 Metra Stations on the Milwaukee District West Line

Metra owns and operates the Milwaukee District West Line. It runs 29 trains in each direction on weekdays, 12 trains in each direction on Saturdays and nine trains in each direction on Sundays. On Saturdays and Sundays, Grand Cicero, Hanson Park, Mars, Mannheim and Big Timber Road (Elgin) have no service.

Several freight companies operate on this line, including the Canadian Pacific, which is this line's dispatcher. Metra has secured funding to replace a bridge across the Fox River that serves as a choke point, limiting peak-period and reverse-commute operations.

Ridership

Ridership on the Milwaukee District West Line grew 6.3 percent from 6,222,152 riders in 2002 to 6,612,092 riders in 2016. During this period there were several sizeable gains and losses. Significant ridership growth occurred between 2004 and 2008, when ridership grew 20.7 percent from 5,722,329 riders in 2004 to 6,901,670 riders in 2008. Significant ridership loss occurred between 2002 and 2004 with an 8 percent decrease from 6,222,152 riders to 5,722,329 riders.

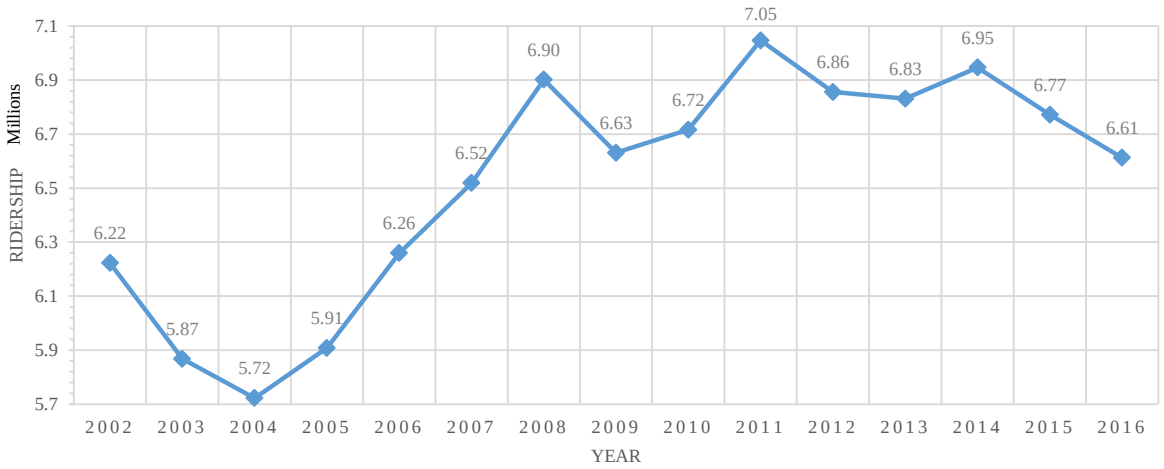

Figure 2.1.61 Ridership Trends on Milwaukee District West Line

On-Time Performance

In 2016, the Milwaukee District West Line's average on-time performance was 95 percent. The figure below shows average on-time performance over the previous five-year period.

Freight interference (150.2), signal/switch failure (143.6) and weather (122.4) were the primary causes for delay between 2011 and 2015. The Milwaukee District West Line crosses the Union Pacific at A-2 Junction and the Canadian National at B-12 Junction and Spaulding.

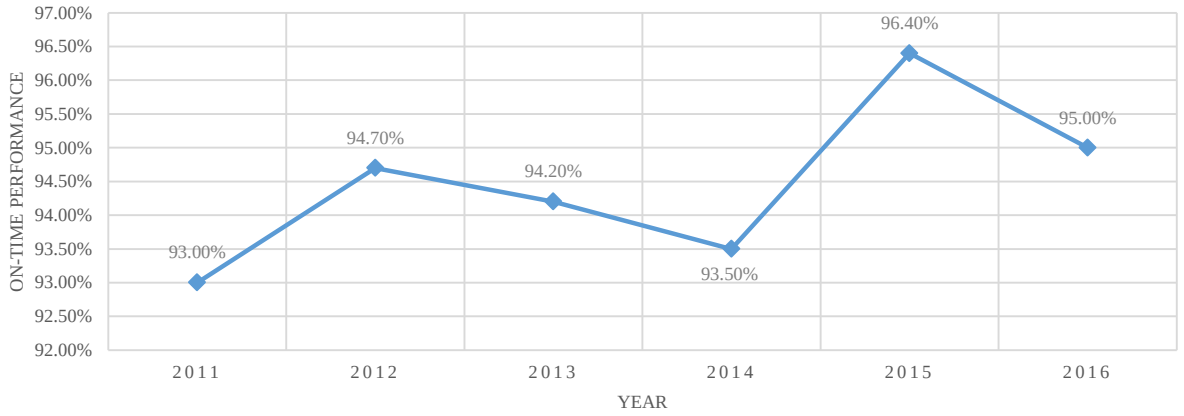

Figure 2.1.62 Average On-time Performance of the Milwaukee District West Line

Other Route Characteristics

The Milwaukee District West Line uses the Galewood and Bensenville Yards. This line uses a Centralized Traffic Control (CTC) system. The Milwaukee District West Line's track gauge is 4 feet 8 1⁄2 inches (1435 mm).

Union Pacific West Line

Metra's Union Pacific West Line extends 43.6 route miles from Ogilvie Station to Elburn. The map below shows this line's 18 stations, which are the following: Ogilvie Transportation Center, Kedzie, Oak Park, River Forest, Maywood, Melrose Park, Bellwood, Berkeley, Elmhurst, Villa Park, Lombard, Glen Ellyn, College Avenue, Wheaton, Winfield, West Chicago, Geneva, La Fox and Elburn.

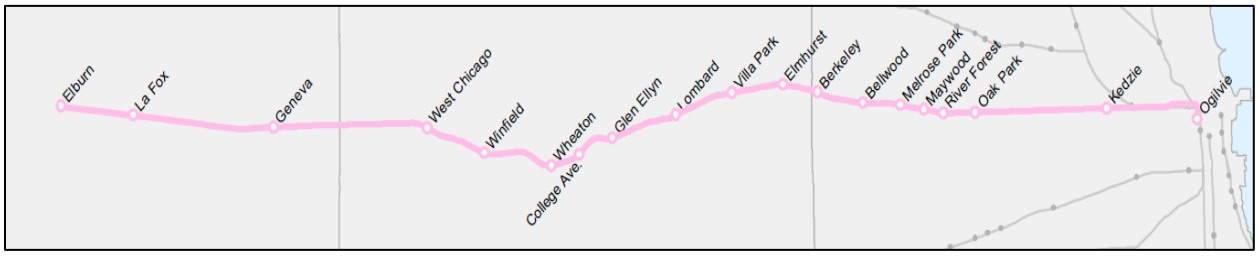

Figure 2.1.63 Metra Stations on the Union Pacific West Line

The Union Pacific Railroad owns and operates the Union Pacific West Line under a purchase of service agreement with Metra. It operates 30 trains west from and 29 trains east to Ogilvie Station on weekdays.

The Union Pacific runs 10 trains in each direction on Saturdays and nine trains in each direction on Sundays. However, it does not provide any service to Kedzie on weekends, possibly because of its relatively low ridership and proximity to the Chicago Transit Authority's Green Line Kedzie Station.

The Union Pacific West Line from Chicago to West Chicago is the first railroad built in Illinois. The Galena & Chicago Union built this segment in 1848 and later extended it to Freeport, Illinois, in 1855. During this time, the Galena & Chicago Union merged with the Chicago & Northwestern and took its name. The Chicago & Northwestern became the Union Pacific when it merged with it in 1995.

The Union Pacific West Line is the Union Pacific's main freight line into Chicago. It carries up to 70 freight trains per day.

Ridership

Between 2002 and 2008, ridership on the Union Pacific West Line grew 23.5percent from 6,792,991 riders to 8,392,658 riders. During the Great Recession in 2008/2009, ridership fell 7.2 percent to 7,788,603 riders. Between 2009 and 2014, ridership on the UP-W Line steadily increased to 8,711,220 riders in 2014, an 11.8 percent increase. In 2015 and 2016, this line had several slight ridership declines.

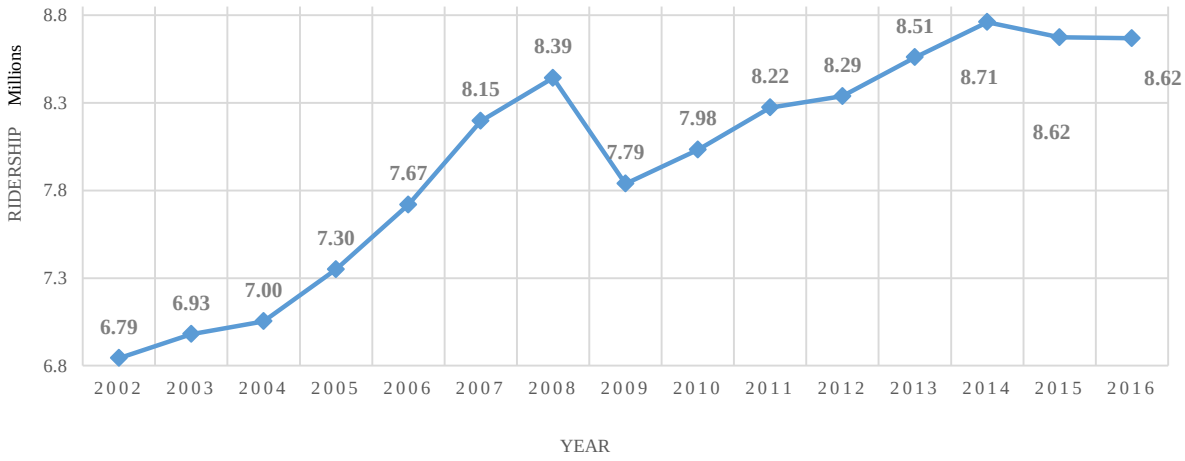

Figure 2.1.64 Ridership Trends on the Union Pacific West Line

On-Time Performance

In 2016, the Union Pacific West Line's average on-time performance was 95.3 percent. The figure below shows average on-time performance over the previous five-year period.

Freight interference (222.2), signal/switch failure (102.4) and weather (111.2) were the primary causes for delay between 2011 and 2015. The Union Pacific West Line crosses Metra's Milwaukee District West Line at A-2 Junction and the Canadian National at West Chicago.

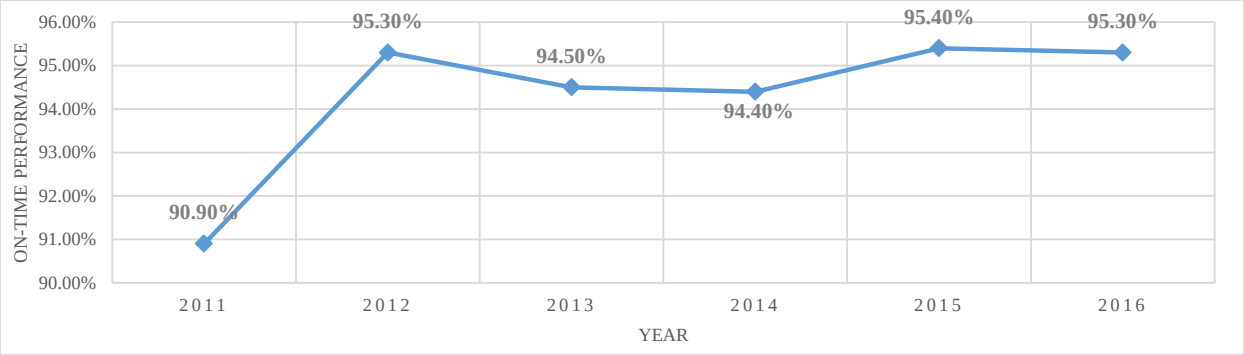

Figure 2.1.65 Average On-time Performance of the Union Pacific West Line

Other Route Characteristics

The Union Pacific West Line uses the California Avenue, Proviso and West Chicago Yards. This line uses the Centralized Traffic Control (CTC) and Automated Train Control (ATC) systems. The Union Pacific West Line's track gauge is 4 feet 8 1⁄2 inches (1435 mm).

Burlington Northern Santa Fe Line

Metra's Burlington Northern Santa Fe Line extends 37.5 route miles from Chicago's Union Station to Aurora. The map below shows this line's 26 stations, which are the following: Chicago Union Station, Halsted Street, Western Avenue, Cicero, LaVergne, Berwyn, Harlem Avenue, Riverside, Hollywood, Brookfield, Congress Park, LaGrange Road, LaGrange Stone Avenue, Western Springs, Highlands, Hinsdale, West Hinsdale, Clarendon Hills, Westmont, Fairview Avenue, Downers Grove Main Street, Belmont, Lisle, Naperville, Route 59 and Aurora.

Figure 2.1.66 Metra Stations on the Burlington Northern Santa Fe Line

The Burlington Northern Santa Fe Railway owns this line and operates commuter rail services under a purchase of service agreement with Metra. It operates 47 trains in each direction on weekdays, 14 trains in each direction on Saturdays and nine trains in each direction on Sundays. However, it does not provide any service to Halsted Street, LaVergne, Congress Park, Highlands and West Hinsdale on weekends.

The Burlington Northern Santa Fe Line has the highest ridership of any line in the Metra system. Its efficient track and signal infrastructure allow high peak-period capacity and frequent express services. It serves rapidly growing communities in the Illinois Technology and Research Corridor, including the Naperville/Aurora area.

Ridership

Ridership on the Burlington Northern Santa Fe Line grew 16 percent from 14,684,612 riders in 2002 to 17,043,293 riders in 2008. During the Great Recession of 2008/2009, ridership dropped 4.9 percent to 16,204,947 riders and then rose 2.3 percent the following year to 16,570,305 riders. Since that time ridership has remained relatively stable with fluctuations between 1.5 percent and 1 percent.

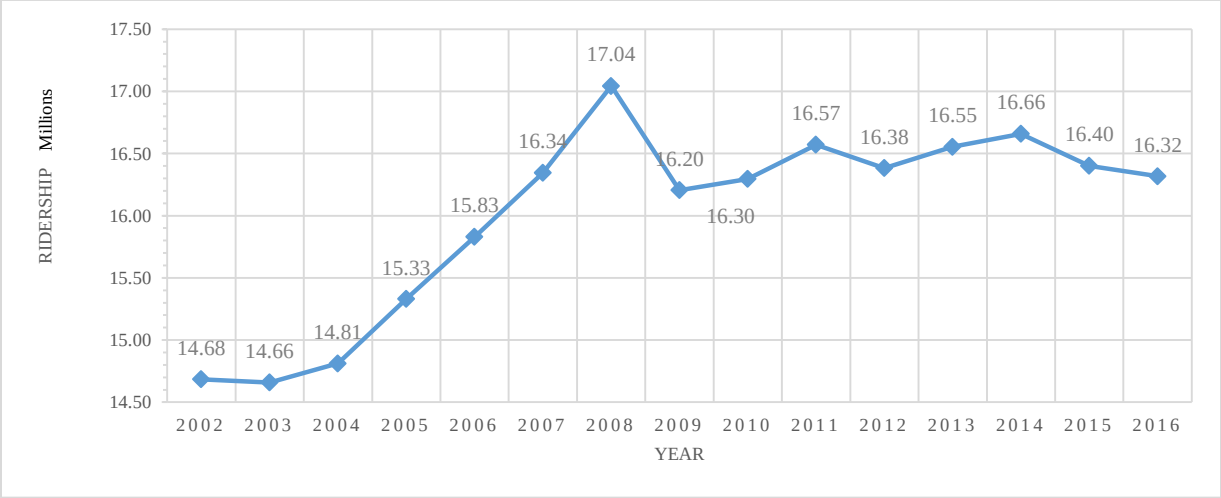

Figure 2.1.67 Ridership Trends on the Burlington Northern Santa Fe Line

On-Time Performance

In 2016, the Burlington Northern Santa Fe Line's average on-time performance was 94 percent. The figure below shows average on-time performance over the previous five-year period.

Freight interference (212.2), signal/switch failure (193.8) and track work (247.6) were the primary causes for delay between 2011 and 2015. The Burlington Northern Santa Fe Line does not cross any other rail line at grade or use any moveable span bridges.

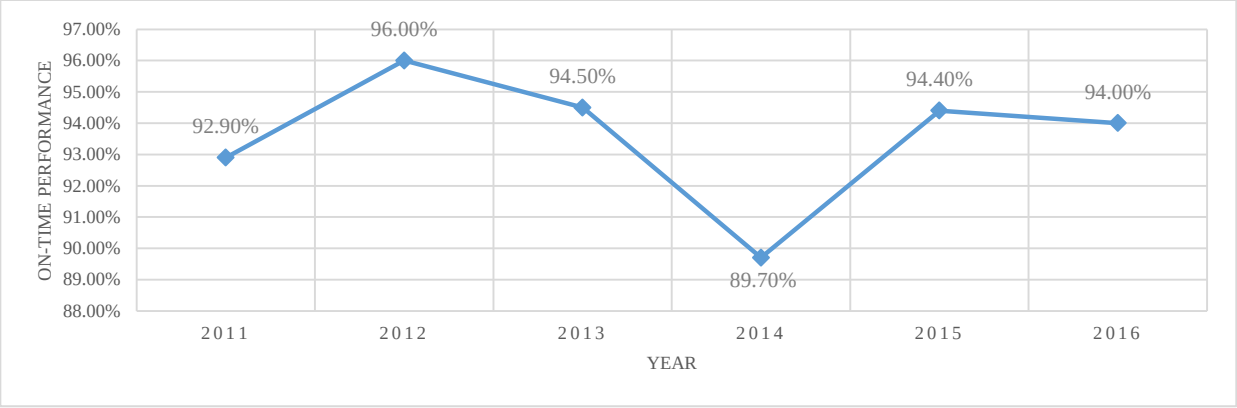

Figure 2.1.68 On-time Performance of the Burlington Northern Santa Fe Line

Other Route Characteristics

The Burlington Northern Santa Fe Line uses the Cicero and Eola-Aurora Yards. This line uses a Centralized Traffic Control (CTC) system. The Burlington Northern Santa Fe Line's track gauge is 4 feet 8 1⁄2 inches (1435 mm).

Heritage Corridor Line

Metra's Heritage Corridor Line extends 37.2 route miles from Chicago's Union Station to Joliet. The map below shows this line's six stations, which are Chicago Union Station, Summit, Willow Springs, Lemont, Lockport and Joliet.

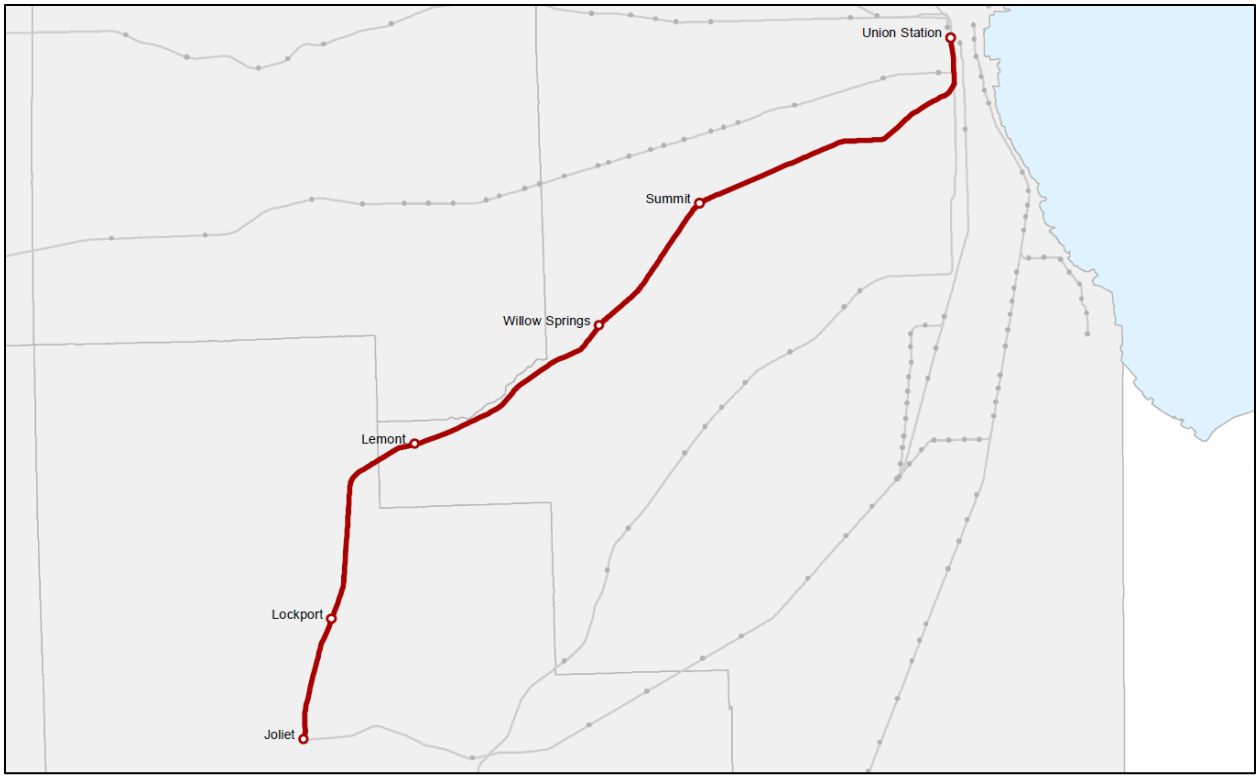

Figure 2.1.69 Metra Stations on the Heritage Corridor Line

Metra runs the Heritage Corridor mostly on tracks the Canadian National owns. Metra operates three northbound trains from Joliet and four southbound trains from Chicago Union Station. All trains make all stops on this line. There is no weekend service.

Ridership

Ridership on the Heritage Corridor Line steadily grew 33.3 percent from 560,000 riders in 2002 to 746,369 riders in 2008. During and shortly after the Great Recession in 2008/2009, ridership dropped 6.8 percent to 695,484 riders in 2010. It recovered somewhat in 2011 with a 1.7 percent increase to 707,304 riders before falling 3.3 percent to 684,019 riders in 2012. In 2014, it rose 6.6 percent to 729,139 riders. Since that time, ridership has decreased slightly with less than 1 percent decreases over each of the following two years.

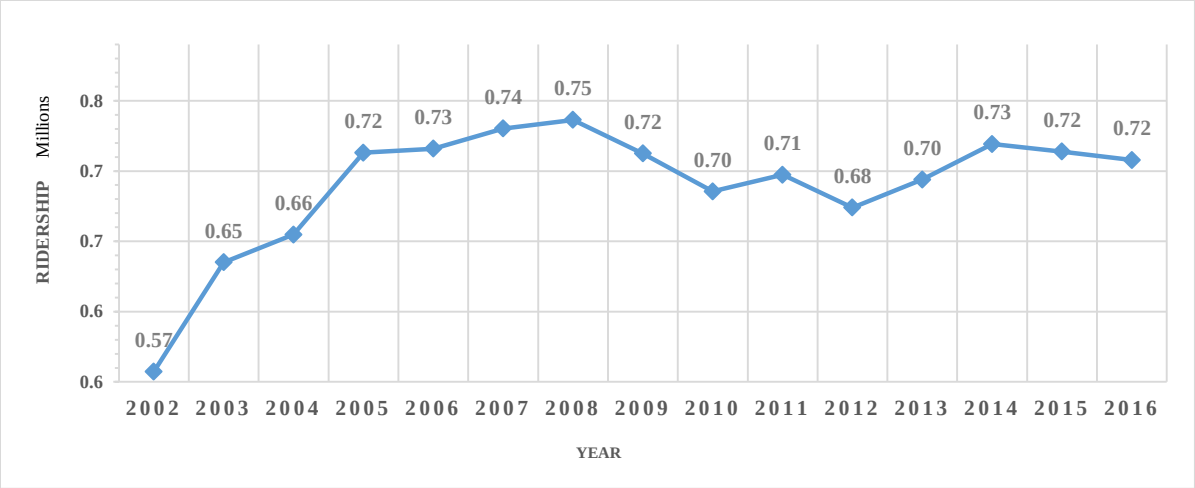

Figure 2.1.70 Ridership Trends on the Heritage Corridor Line

On-Time Performance

In 2016, the Heritage Corridor Line's average on-time performance was 94.4 percent. The figure below shows average on-time performance over the previous five-year period.

Freight interference (38), signal/switch failure (250) and human error (15.8) were the primary causes for delay. As mentioned earlier, numerical values in the parenthesis are average frequency of train delays over previous five years between 2011 and 2015 (for period January-November). The Heritage Corridor crosses the following at grade: a shared track between the Norfolk Southern and the CSX at Brighton Park; a shared track between the Canadian National and the Burlington Northern Santa Fe at Corwith; the Belt Railway of Chicago at Lemoyne; the Indiana Harbor Belt at Canal/Argo; and a shared track among Metra, the CSX and the Iowa Interstate Railroad at Joliet. The Heritage Corridor also uses a moveable span bridge over the South Branch of the Chicago River at 21st Street.

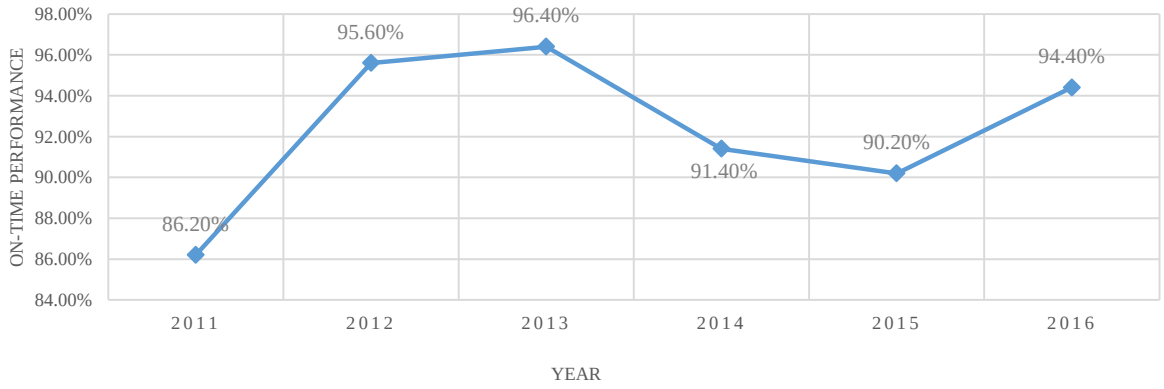

Figure 2.1.71 On-time Performance of the Burlington Northern Santa Fe Line

Southwest Service Line

Metra's Southwest Service Line extends 40.8 route miles from Chicago's Union Station to Manhattan in Will County. Figure 2.1.72 shows this line's 13 stations, which are the following: Chicago Union

Station, Wrightwood, Ashburn, Oak Lawn, Chicago Ridge, Worth, Palos Heights, Palos Park, 143rd Street, 153rd Street, 179th Street, Laraway Road and Manhattan.

Metra runs the Southwest Service Line mostly on tracks the Norfolk Southern Railway owns. Metra operates 15 trains in each direction with three of them serving Laraway Road and Manhattan. On Saturdays, Metra operates three trains in each direction that serve all the stations on this line.

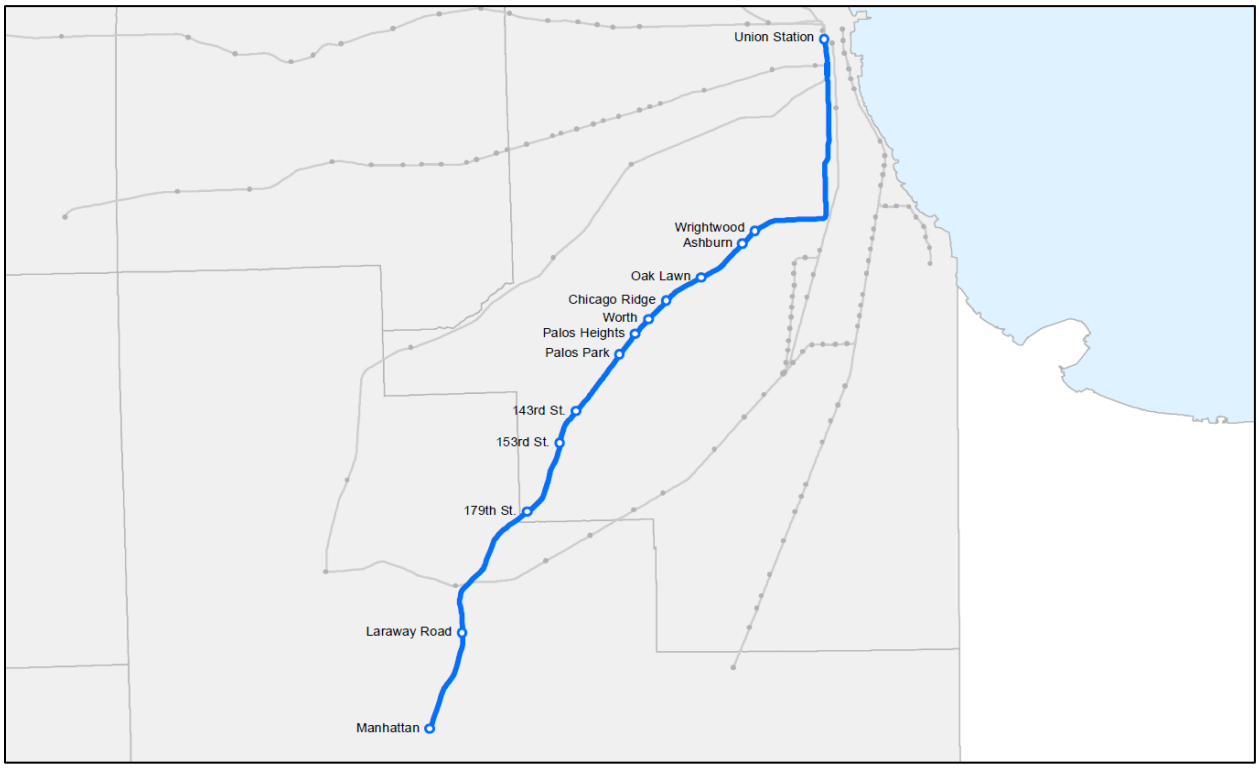

Figure 2.1.72 Metra Stations on the Southwest Service

Ridership

Ridership on the Southwest Service Line steadily grew 45.2 percent from 2,176,381 riders in 2002 to 3,159,758 riders in 2008. Some of this increase is likely due to this line's extension into Will County with the opening of the Laraway Road and Manhattan Stations in 2006. Since that time, ridership has remained stable on this line with more modest increases and decreases. The figure below includes more information on ridership trends on the Southwest Service Line.

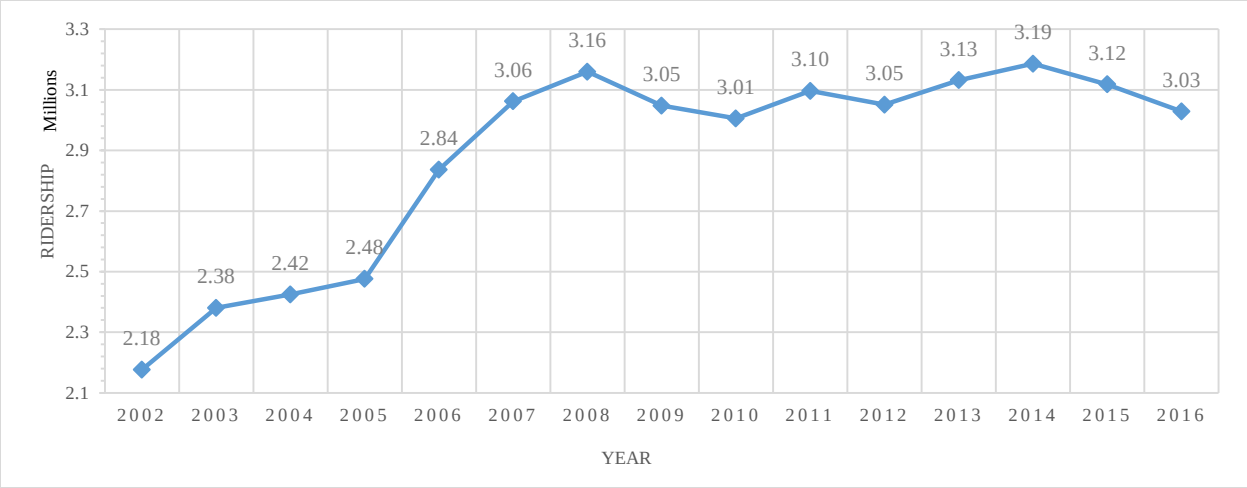

Figure 2.1.73 Ridership Trends on the Southwest Service Line

On-Time Performance

In 2016, the Southwest Service Line's average on-time performance was 95.1 percent. The Figure below shows average on-time performance over the previous five-year period.

Freight interference (168.2), signal/switch failure (102), and human error (38.4) were the primary causes for delay between 2011 and 2016. The Southwest Service Line crosses the following at-grade: the Canadian National at Chicago, the Belt Railway at Belt Junction, the CSX at 75th Street, the Canadian National in Ashburn, and the Indiana Harbor Belt in Chicago Ridge. The Southwest Service Line also uses a moveable span bridge over the South Branch of the Chicago River at 21st Street.

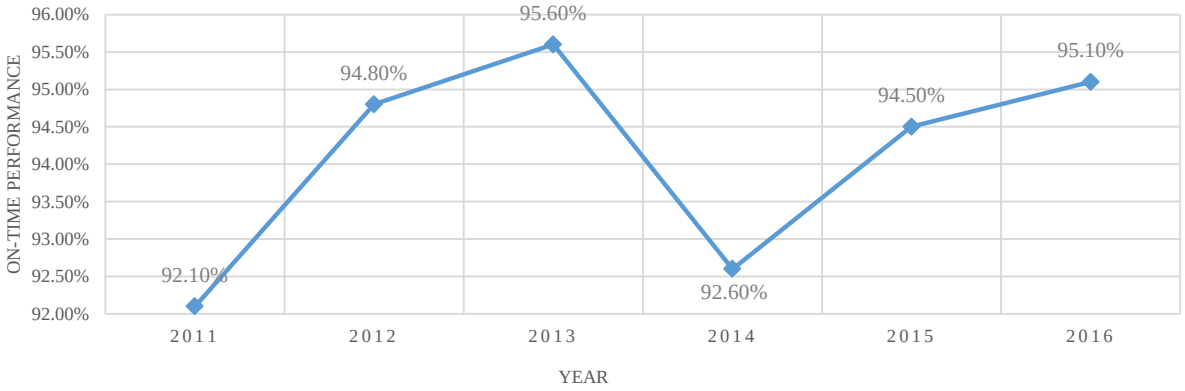

Figure 2.1.74 On-time Performance of the Southwest Service Line

Other Route Characteristics

The Southwest Service Line uses the Canal Street, 47th Street, Rockwell, and Landers Yards. This line uses a Centralized Traffic Control (CTC) system. The Southwest Service Line's track gauge is 4 feet 8 1⁄2 inches (1435 mm).

Rock Island District Line

Metra's Rock Island District Line has an express main line and a local branch that collectively span 46.8 route miles. The express main line serves a few of Chicago's south side neighborhoods and the southwest suburbs as far as Joliet. The stations are spread apart, which allow for higher train speeds. Trains on the local Beverly Branch make many closely spaced local stops on Chicago's far southwest side and near southwest suburbs. These trains typically end in suburban Blue Island. The following 26 stations are on the Rock Island District Line: LaSalle Street Station, 35th Street, Gresham, 95th Street Longwood, 103rd Street Washington Heights, Brainerd, Beverly Hills–91st Street, Beverly Hills–95th Street, Beverly Hills–99th Street, Beverly Hills–103rd Street, Beverly Hills–107th Street, Morgan Park-111th Street, Morgan Park–115th Street, 119th Street, 123rd Street, Prairie Street, Blue Island, Robbins, Midlothian, Oak Forest, Tinley Park, Tinley Park–80th Avenue, Hickory Creek, Mokena, New Lenox, and Joliet.

Metra runs Rock Island District Line trains on tracks it owns from LaSalle Street to Blue Island and on CSX tracks south of Blue Island. Metra operates 36 trains in each direction on weekdays. Sixteen of these trains run express to the southwest suburbs, 14 of them run on the Beverly Branch, and six of them make all stops, except 95th Street Longwood and 103rd Street Washington Heights. On Saturdays and Sundays, Metra runs 20 trains in each direction. Six of these trains run express to the southwest suburbs, six trains run on the Beverly Branch, and four trains make all stops, except 95th Street Longwood and 103rd Street Washington Heights.

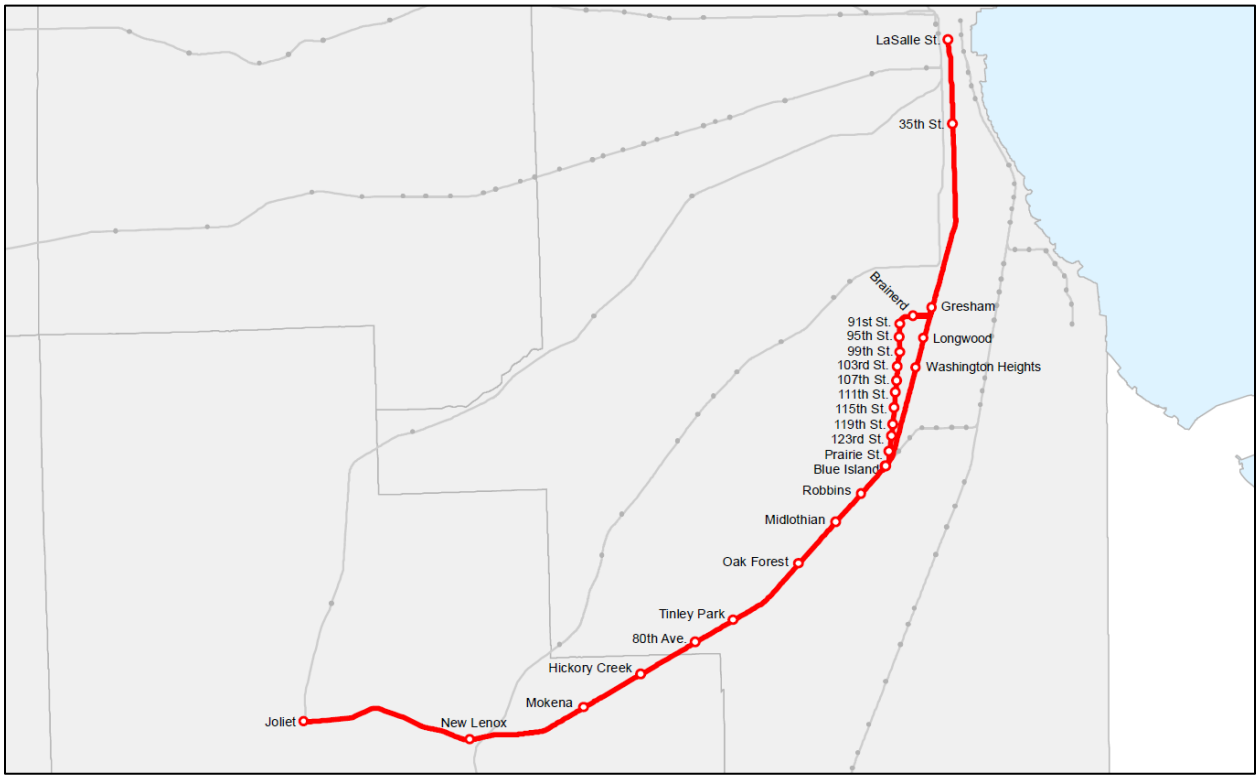

Figure 2.1.75 Metra Stations on the Rock Island District Line

Ridership

Ridership on the Rock Island District Line fell 1.9 percent from 8,705,707 riders in 2002 to 8,540,351 riders in 2004. It rebounded from that time to 2007, when it peaked at 9,179,344 riders. During and shortly after the Great Recession of 2008/2009, ridership plummeted 13.6 percent to 7,926,649 riders. This makes sense since a significant number of financial traders and bankers lived along this line. From 2010 to 2014, ridership remained stable, but has since declined 5 percent in the last two years.

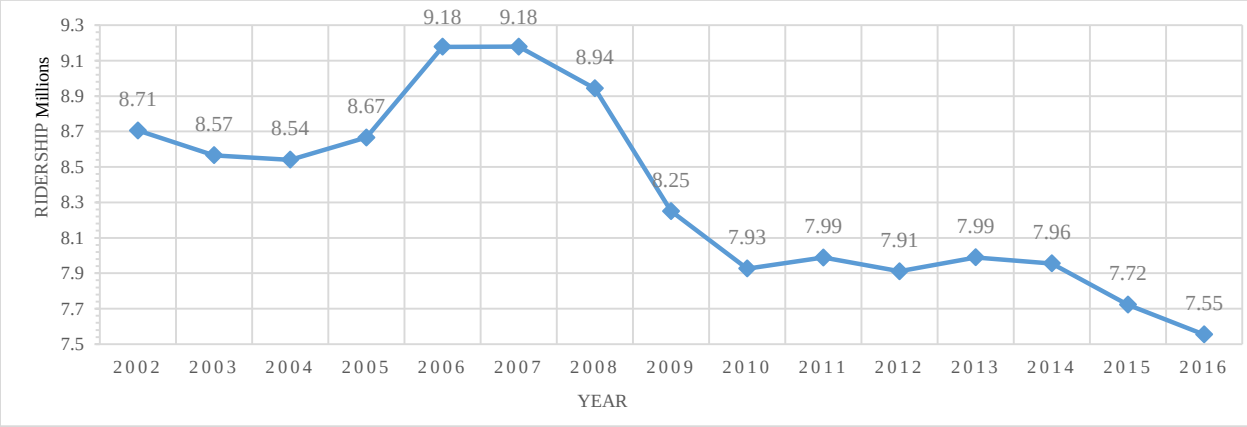

Figure 2.1.76 Ridership Trends on the Rock Island District Line

On-Time Performance

In 2016, the Rock Island District Line's average on-time performance was 96.1 percent. The figure below shows average on-time performance during the previous five-year period.

Mechanical failure (111.2), weather (135.2), and passenger loading (162) were the primary causes for delay between 2011 and 2015 (average frequency of train delays over previous five years between for period: January – November). The Rock Island District Line crosses the following at-grade: the St. Charles Air Line at 16th Street, a shared track between the CSX and the Norfolk Southern in Englewood, and a shared track between the Burlington Northern Santa Fe and the Union Pacific in Joliet.

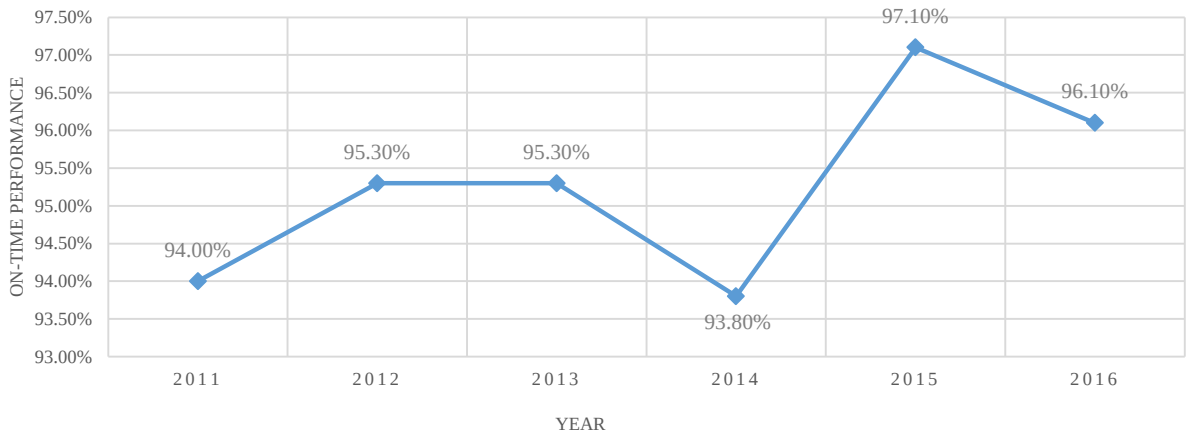

Figure 2.1.77 Average On-time Performance of the Rock Island District Line

Other Route Characteristics

The Rock Island District uses the Gresham and Blue Island Yards. This line uses Centralized Traffic Control (CTC) and Consolidated Block systems. A portion of this line is also not signaled. The Rock Island District's track gauge is 4 feet 8 1⁄2 inches (1435 mm).

Metra Electric District Line

The Metra Electric District Line has a mainline and two branches that collectively span 40.6 route miles. The mainline extends from Millennium Station, through Chicago's southeast side and south suburbs to University Park. The South Chicago Branch splits off from the mainline south of 69th Street and continues east and southeast through Chicago's far southeast side to 93rd Street. The Blue Island Branch splits off the mainline around 117th Street and continues west and southwest through Chicago's far southwest side to southwest suburban Blue Island. It comes within one block of the Rock Island District's Blue Island Station.

The Metra Electric District Line is the only Metra line that uses an overhead catenary wire system rather than diesel locomotives. The South Shore Line also operates on Metra Electric District tracks from Millennium Station to 115th Street and boards and alights its riders at six Metra Electric District Line stations.

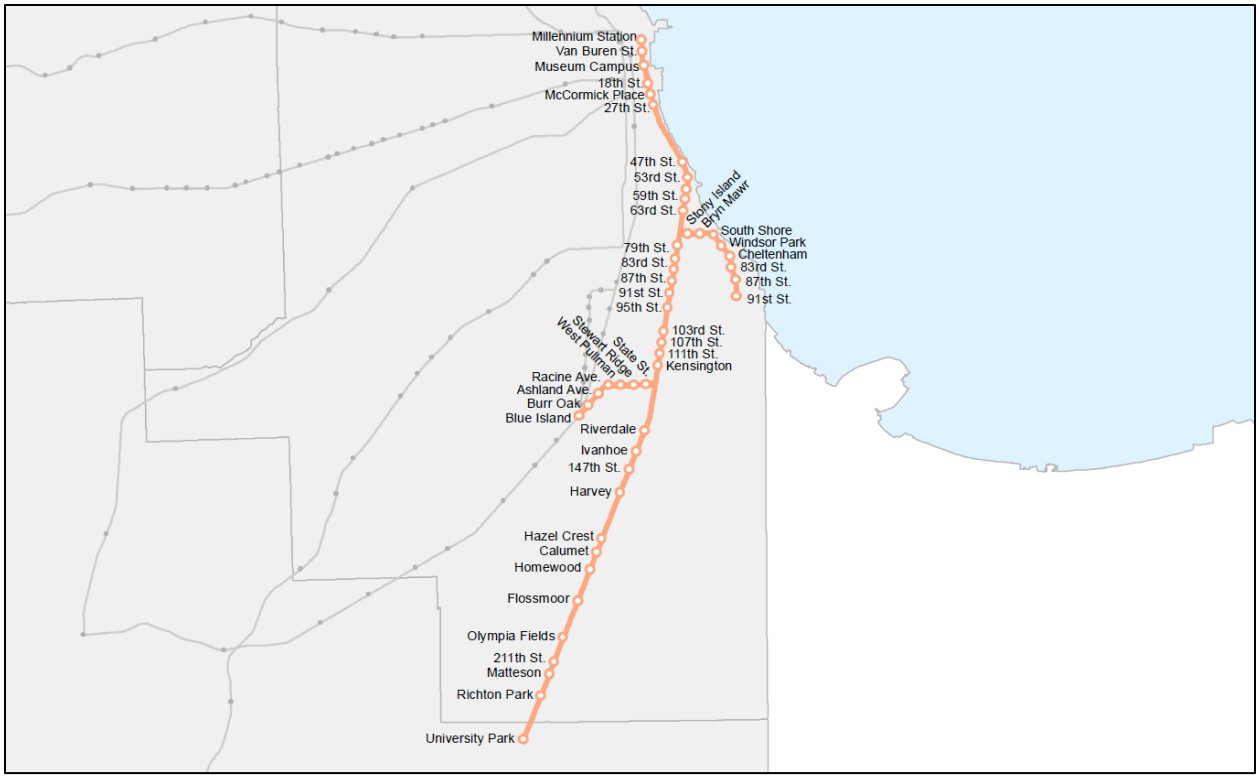

Figure 2.1.78 Metra Stations on the Metra Electric District Line

The following 49 stations are on the Metra Electric District Line: Millennium Station, Van Buren Street, Museum Campus/11th Street, 18th Street, McCormick Place, 27th Street, 47th Street, 51st/53rd Street, 55th-56th-57th Street, 59th Street, 63rd Street, 75th Street, 79th Street, 83rd Street, 87th Street, 91st Street, 95th Street, 103rd Street, 107th Street, 111th Street, Kensington/115th Street, Riverdale, Ivanhoe, 147th Street, Harvey, Hazel Crest, Calumet, Homewood, Flossmoor, Olympia Fields, 211th Street, Matteson, Richton Park, University Park, Stony Island, Bryn Mawr, South Shore, Windsor Park, 79th Street Cheltenham, 83rd Street Windsor Park, 87th Street (South Chicago), 93rd St. (South Chicago), State Street, Stewart Ridge, West Pullman, Racine, Ashland, Burr Oak, and Blue Island.

Metra runs Electric District Line trains on its own tracks. It operates 36 southbound mainline trains (26 to University Park, five to Flossmoor, and five to Harvey), 28 southbound South Chicago Branch trains, and 17 southbound Blue Island trains. It also operates 40 northbound mainline trains (28 from University Park, five from Flossmoor, one from Calumet, and six from Harvey), 26 northbound South Chicago Branch trains, and 20 Blue Island Branch trains.

On Saturdays, Metra operates 23 southbound mainline trains to University Park, 23 southbound trains to South Chicago, and 14 southbound trains to Blue Island. It also operates 23 northbound mainline trains from University Park, 24 northbound trains from South Chicago, and 16 northbound trains from Blue Island.

On Sundays, Metra operates 10 trains from University Park and 10 trains from South Chicago in each direction. Metra does not provide any service to or from Blue Island on Sundays.

Ridership

Ridership decreased 8.5 percent from 10,091,448 riders in 2002 to 9,235,975 riders in 2004. It steadily grew back to previous levels and peaked at 10,541,257 riders. Ridership since that time has steadily declined 27.9 percent to 7,601,345 riders in 2016.

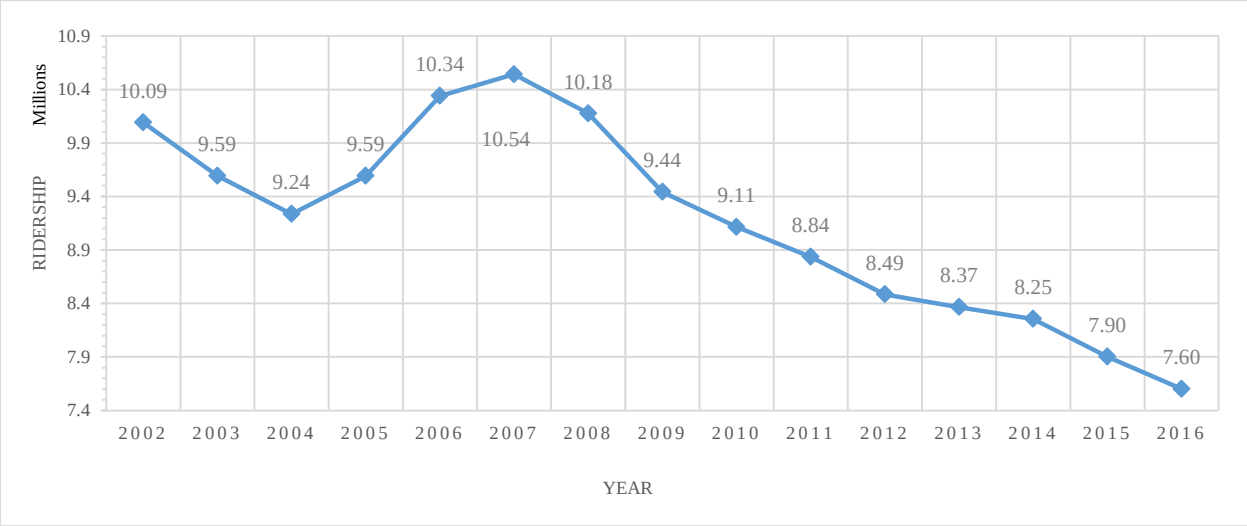

Figure 2.1.79 Ridership Trends on the Metra Electric District Line

On-Time Performance

In 2016, the Metra Electric District Line's average on-time performance was 98.1 percent. The figure below shows average on-time performance during the previous five-year period.

Signal/switch failure (87.4), weather (130), and passenger loading (160.2) were the primary causes for delay between 2011 and 2015 (average frequency of train delays over previous five years between for period: January – November). The Metra Electric District Line crosses the South Shore Line at Kensington Junction.

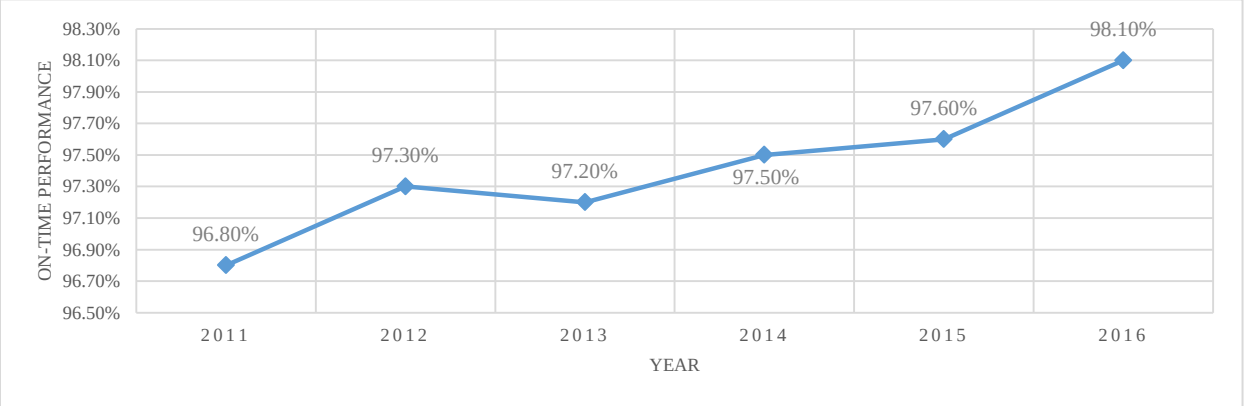

Figure 2.1.80 On-time Performance of the Metra Electric District Line

Other Route Characteristics

The Metra Electric District uses Centralized Traffic Control (CTC) and Automatic Block Signal (ABS) systems. The Metra Electric District's track gauge is 4 feet 8 1⁄2 inches (1435 mm).

Metra and the South Shore Line

The Northern Indiana Commuter Transportation District runs the South Shore Line on tracks that they own along with Metra. The South Shore Line uses an overhead catenary wire system rather than diesel locomotives. The Northern Indiana Commuter Transportation District operates 21 westbound and 22 eastbound trains on weekdays. Two of these trains travel only between Carroll Avenue and the South Bend Airport. On weekends, the Northern Indiana Commuter Transportation District operates nine westbound and 11 eastbound trains. Two of the eastbound trains travel only between Carroll Avenue and the South Bend Airport.

The South Shore Line spans 89.7 miles from Millennium Station in Chicago to the South Bend International Airport in Indiana. It assumed ownership of this line when the South Shore Line's private operator went bankrupt in 1989. The map below shows this line's 19 stations: Millennium Station, Van Buren Street, Museum Campus/11th Street, McCormick Place, 57th Street, 63rd Street and Hegewisch in Illinois, and Hammond, East Chicago, Gary/Chicago Airport (Clark Road), Gary Metro Center, Miller, Portage/Ogden Dunes, Dune Park, Beverly Shores, 11th Street/Michigan City, Carroll Avenue, Hudson Lake, and South Bend Airport in Indiana. People boarding or alighting this train can only use the South Shore Line if they are traveling to or from Chicago's Hegewisch Station or stations within Indiana. This train cannot serve commuter trips that Metra can make.

A board of trustees governs this railroad and represents the four Indiana counties this railroad has stations in.[61]

[61] http://www.mysouthshoreline.com/about/nictd

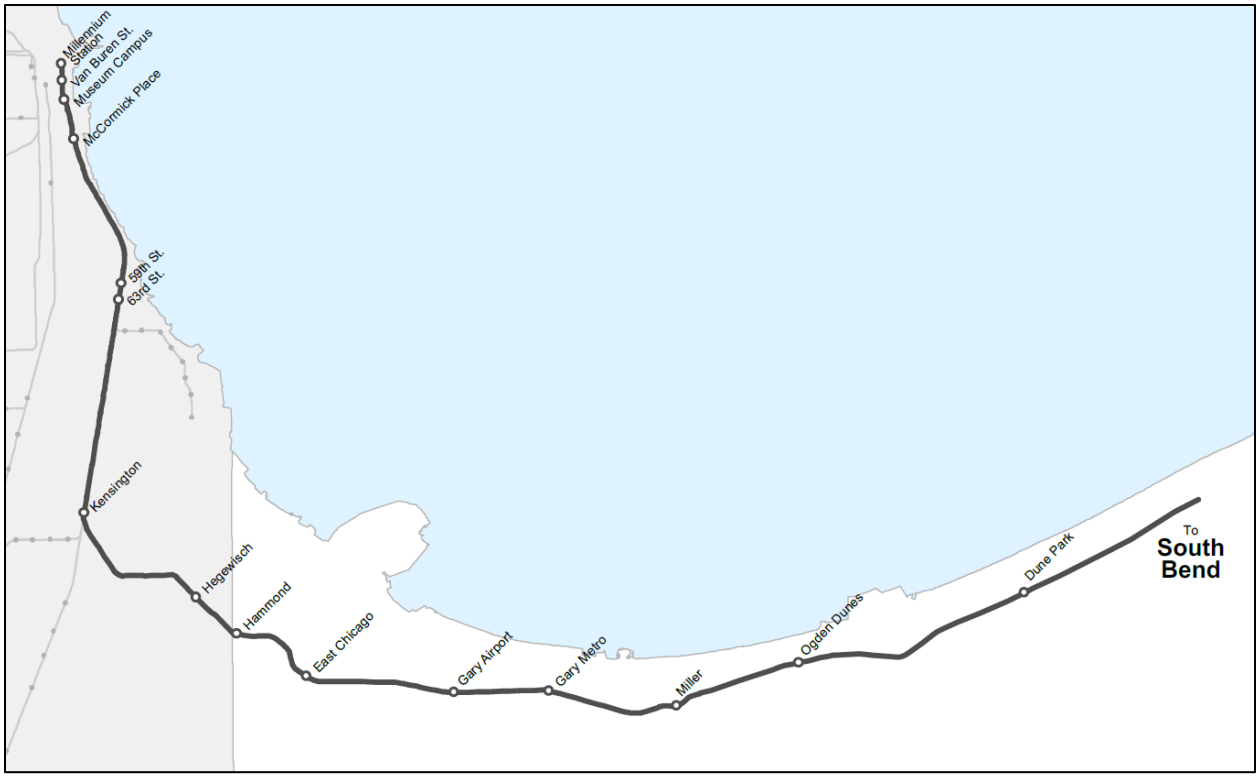

Figure 2.1.81 South Shore Line Stations

Operating Characteristics

The South Shore Line crosses the following railroads at-grade: the Metra Electric District Line at Kensington Junction, a track that the Norfolk Southern and Indiana Harbor Belt share at Burnham, the Norfolk Southern in Gary and Michigan City, Ind., and the Chicago South Shore and South Bend Railroad in Michigan City,

The South Shore Line uses a railyard in Burnham.

Other Route Characteristics

The South Shore Line uses Centralized Traffic Control (CTC) and Automatic Block Signal (ABS) systems. The South Shore Line's track gauge is 4 feet 8 1⁄2 inches (1435 mm).

2.1.2 Intermodal Connections

Intermodal connections are key to providing efficient transportation options to users. They are defined here as an intercity passenger rail service facility's ability to let passengers conveniently connect with other transportation modes.[62] This section profiles existing intermodal connections at intercity passenger rail stations in Illinois. Chicago Union Station (CUS), Glenview, Homewood, La Grange, Naperville, Joliet, and Summit are intercity passenger rail stations that have connections to Metra commuter rail.

62 http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Reports/OP&P/Plans/Illinois%20State%20Rail%20Plan%202012.pdf

Chicago Union Station

Chicago Union Station is located at 225 S. Canal St. in Chicago, just west of Chicago's Central Business District. It is one of the West Loop's major transportation assets and has housed all of Amtrak's intercity passenger train operations since 1971. Metra runs many commuter trains there and is Chicago Union Station's biggest tenant. Chicago Union Station serves more than 31 million passengers annually on 300 daily Amtrak and Metra trains. It also has connections to the Chicago Transit Authority's rail and bus lines, Amtrak Thruway Motorcoach services, Megabus and the Interstate Highway System.

Amtrak

Chicago Union Station is the hub of Amtrak's Midwest train network. It is the terminal station for eight long-distance routes, four corridor services, and four in-state Amtrak routes listed below:

- Blue Water (Chicago-Port Huron, Michigan)
- California Zephyr (Chicago-Galesburg-Emeryville, California)
- Capitol Limited (Chicago-Cleveland-Washington D.C.)
- Cardinal (Chicago-Cincinnati-New York)
- Carl Sandburg and Illinois Zephyr Services (Chicago-Galesburg-Quincy)
- City of New Orleans (Chicago-Champaign-New Orleans)
- Empire Builder (Chicago-St. Paul/Minneapolis-Seattle, Washington/Portland, Oregon)
- Hiawatha Service (Chicago-Glenview-Milwaukee)
- Hoosier State (Chicago-Indianapolis)
- Illini and Saluki Services (Chicago-Champaign-Carbondale)
- Lake Shore Limited (Chicago-Cleveland-New York)
- Lincoln Service (Chicago-Bloomington/Normal-Springfield-St. Louis)
- Pere Marquette (Chicago-Grand Rapids, Michigan)
- Southwest Chief (Chicago-Kansas City-Los Angeles)
- Texas Eagle (Chicago-St. Louis-San Antonio-Los Angeles)
- Wolverine (Chicago-Detroit/Pontiac)[63]

Metra

Chicago Union Station provides access to the six following Metra routes that connect to Chicago's north, west, and south suburbs:

- North Central Service
- Milwaukee District North Line
- Milwaukee District West Line
- Burlington Northern Santa Fe Line
- Heritage Corridor Line
- Southwest Service Line

CTA Trains

Chicago Union Station is within walking distance of the following five CTA rapid transit lines:

- Brown Line (3 blocks east)
- Orange Line (3 blocks east)
- Pink Line (3 blocks east)

63 https://www.amtrak.com/servlet/ContentServer?c=AM_Content_C&pagename=am%2FLayout&cid=1241267290796

- Purple Line (3 blocks east)
- Blue Line (2 blocks south)[64]

CTA Bus

The following Chicago Transit Authority bus routes stop at or near Chicago Union Station's Canal or Madison Street entrances:

- #1 Indiana/Hyde Park
- #7 Harrison
- #14 Jeffery Express (Madison Entrance)
- #19 United Center Express (Madison Entrance)
- #X20 Madison Express (Madison Entrance)
- #56 Milwaukee
- #60 Blue Island/26th (Owl Service)
- #120 Ogilvie/Wacker Express (Madison Entrance)
- #121 Union/Wacker Express
- #124 Navy Pier
- #125 Water Tower Express
- #126 Jackson
- #128 Soldier Field Express (Game Day Only)
- #130 Museum Campus (Summer Service Only)
- #151 Sheridan (Owl Service)
- #156 LaSalle
- #157 Streeterville/Taylor
- #192 University of Chicago Hospitals Express[65]

Megabus

Megabus provides service from Chicago on Routes M1, M2, M3, M5, M6, or M7 to the following cities: Ann Arbor, Mich.; Champaign; Cincinnati; Cleveland; Columbia, Mo.; Columbus, Ohio; Des Moines; Detroit; Indianapolis; Iowa City, Iowa; Kansas City, Mo.; Louisville, Ky.; Milwaukee ; Minneapolis; Nashville, Tenn.; Normal; Omaha, Neb.; and St. Louis.

The Megabus bus stop is located on the east side of Canal Street south of Jackson Boulevard.

Amtrak Thruway Motorcoach

Amtrak also provides Thruway Motorcoach bus service to and from Chicago Union Station via Greyhound Bus Lines and the Van Galder Bus Company. These routes are as follows:

- Chicago-Champaign-St. Louis (operated by Greyhound)
- Chicago-Indianapolis-Louisville (operated by Greyhound)
- Chicago-Indianapolis-Cincinnati (operated by Greyhound)
- Chicago-Cleveland-Pittsburgh-Washington, D.C. (operated by Greyhound)
- Chicago-Detroit (operated by Greyhound)
- Chicago-Des Moines-Omaha (operated by Greyhound)
- Chicago-Rockford-Madison (operated by Van Galder Bus Co., whose bus stop is on the east side of Canal Street, north of Jackson Boulevard.)
- Chicago-Milwaukee-Madison-Minneapolis (operated by Greyhound)[66]

64 http://www.transitchicago.com/riding_cta/systemguide/default.aspx
65 http://www.transitchicago.com/default.aspx

Highway Network

Chicago Union Station is near I-55, I-90/94, I-290, U.S. 41.

Glenview Station

The Glenview Station is located at 1116 Depot Street. This intermodal station provides access to Amtrak and Metra trains, Pace buses, and the Illinois highway network.

Amtrak

All seven Hiawatha trains operating in each direction from Monday to Saturday and all six Hiawatha trains operating on Sunday in each direction stop at this station. Both of Amtrak's daily Empire Builder trains also stop here. Amtrak had 55,340 passengers board or alight at this station in 2016, which is down 16.9 percent from 66,629 boardings and alightings in 2010.

The top origins or destinations for people boarding or alighting at this station were Milwaukee; Mitchell Field (in Milwaukee); Chicago (to transfer to or from another Amtrak train outside of northeastern Illinois); Sturtevant, Wis,; St. Paul, Minn.; Winona, Minn.; La Crosse, Wis.; Wisconsin Dells; and Tomah, Wis.

Metra

On weekdays, 84 percent of all southbound (26 out of 31 trains) and 97 percent of all northbound Milwaukee District North Line trains (29 out of 30 trains) stop at the Glenview Station. All the weekend trains also stop here.

In 2014, Metra had 1,444 boardings at this station, which is 10.4 percent fewer than the 1,611 boardings in 2006.

Pace Bus

Routes 210 (Lincoln Avenue), 422 (Linden CTA/Glenview/Northbrook Court), and 423 (Linden CTA/The Glen/Harlem CTA) serve the Glenview Station. These routes generally operate between the train station and shopping centers, other Metra stations, and Glenbrook Hospital.

Highway Network

The Glenview Station has convenient access to Illinois 43.

Homewood Station

The Homewood Station is located at Ridge Road and Harwood Avenue. This intermodal station provides access to Amtrak and Metra trains, Pace buses, and the Illinois highway network.

Amtrak

Amtrak daily operates one Illini and Saluki train in each direction between Chicago and Carbondale and one City of New Orleans train in each direction between Chicago and New Orleans. Each of these trains stops at Homewood Station. Amtrak had 36,709 passengers board or alight at this station in 2016, which is up 8.4 percent from 33,879 boardings and alightings in 2010.

66 http://extranet.greyhound.com/Revsup/schedules/sa-50.pdf

The top origins or destinations for people boarding or alighting at this station were Carbondale; Champaign; Jackson, Miss.; Mattoon; Memphis; Greenwood, Miss.; Centralia; Effingham; and New Orleans.

Metra

On weekdays, 72 percent of all southbound (26 out of 36 trains) and 70 percent of all northbound Metra Electric District mainline trains (28 out of 40 trains) stop at the Homewood Station. All the weekend trains also stop here.

In 2014, Metra had 1,244 boardings at this station, which is 14.6 percent lower than the 1,456 boardings in 2006.

Pace Bus

Routes 352 (Halsted), 356 (Harvey-Homewood-Tinley Park), 359 (Robbins/South Kedzie Avenue), and 372 (Dixie Highway) serve the Homewood Station.

Highway Network

The Homewood Station has convenient access to I-57, I-80, I-94, and Illinois 1.

Joliet Station

The Joliet Station is located at 50 E. Jefferson Street. This intermodal station provides access to Amtrak and Metra trains, Pace buses, and the Illinois highway network.

Amtrak

All four Lincoln Service trains and the one Texas Eagle train operating in each direction stop daily at this station. Amtrak had 57,528 passengers board or alight at this station in 2016, which is up 9.3 percent from 52,631 boardings and alightings in 2010.

The top origins or destinations for people boarding or alighting at this station were Normal, St. Louis , Springfield, Chicago (to transfer to or from another Amtrak train outside of northeastern Illinois), Alton, Lincoln, Pontiac, Carlinville, and Dwight.

Metra

On weekdays, 96 percent of all southbound (24 out of 25 trains) and all northbound Rock Island District Line trains stop at the Joliet Station. All of the weekend trains Rock Island District Line trains also stop here.

On weekdays, all of the Heritage Corridor Line trains stop at the Joliet Station. There is no Heritage Corridor Line service on the weekends.

In 2014, Metra had 1,057 boardings at this station, which is 2.8 percent higher than the 1,028 boardings in 2006. This includes boardings on the Rock Island District mainline and the Heritage Corridor Line.

Pace Bus

Routes 501 (West Jefferson), 504 (South Joliet), 505 (West Joliet Loop), 507 (Plainfield), 511 (Joliet-Elwood-CenterPoint), 512 (Joliet-CenterPoint), 832 (Joliet-Orland Square), and 834 (Joliet-Downers Grove) serve Joliet Station.

Highway Network

The Joliet Station has convenient access to I-55, I-80, US 6, US 30, IL-52, IL-53.

La Grange Road Station

The La Grange Station is located at 25 W. Burlington Ave.. This intermodal station provides access to Amtrak and Metra trains, Pace buses, and the Illinois highway network.

Amtrak

The Carl Sandburg and the Illinois Zephyr trains operating in each direction stop daily at this station. Amtrak had 12,045 passengers board or alight at this station in 2016, which is down 14 percent from 14,001 boardings and alightings in 2010.

The top origins or destinations for people boarding or alighting at this station were Macomb, Galesburg, Quincy, Kewanee, Princeton, Mendota, Chicago (to transfer to or from another Amtrak train outside of Northeastern Illinois), Plano, and Naperville (to transfer to or from another Amtrak train outside of Northeastern Illinois).

Metra

On weekdays, 51 percent of all westbound (25 out of 47) and 53 percent of all eastbound (24 out of 47) Burlington Northern Santa Fe Line trains stop at LaGrange Station. On Saturdays, 93 percent of all trains in each direction stop at this station. All trains stop here on Sundays.

In 2014, Metra had 1,468 boardings at this station, which is 8.6 percent higher than the 1,352 boardings in 2006.

Pace Bus

Routes 302 (Ogden-Stanley), 304 (North Riverside-La Grange), 330 (Mannheim-La Grange Roads) serve La Grange Road Station.

Highway Network

The La Grange Road Station has convenient access to I-55, I-80, I-88, I-290, I-294, U.S. 20, U.S. 34, IL-171.

Naperville Station

The Naperville Station is located at 105 E. Fourth Ave.. This intermodal station provides access to Amtrak and Metra trains, Pace buses, and the Illinois highway network.

Amtrak

The Carl Sandburg, California Zephyr, Illinois Zephyr and Southwest Chief trains operating in each direction stop daily at this station. Amtrak had 46,439 passengers board or alight at this station in 2016, which is down 7.3 percent from 50,123 boardings and alightings in 2010.

The top origins or destinations for people boarding or alighting at this station were Macomb, Galesburg, Quincy, Kansas City (Missouri), Princeton, Denver (Colorado), Kewanee, Mendota, and Chicago (to transfer to or from another Amtrak train outside of northeastern Illinois).

Metra

On weekdays, 66 percent of all westbound (31 out of 47) and 60 percent of all eastbound (28 out of 47) Burlington Northern Santa Fe Line trains stop at Naperville Station. All the weekend trains also stop here.

In 2014, Metra had 4,002 boardings at this station, which is 2.7 percent lower than the 4,112 boardings in 2006.

Pace Bus

Routes 530 (West Galena), 676 (Warrenville-Naperville Metra), 677 (Brighton Ridge-Naperville Metra), 678 (River Woods-Naperville Metra), 680 (Brookwood Trace-Naperville Metra), 681 (Lincoln Park-Naperville Metra), 682 (Brookdale-Naperville Metra), 683 (Ashbury-Naperville Metra), 684 (Winchester Place-Naperville Metra), 685 (Ivy Ridge-Naperville Metra), 687 (Maplebrook East-Naperville Metra), 689 (Century Hill-Naperville Metra), 714 (College of DuPage-Naperville-Wheaton Connector), 722 (Ogden Avenue) serve Naperville Station.

Highway Network

The Naperville Station has convenient access to I-55, I-88, I-294, I-355, U.S. 34, Illinois 53, and Illinois 59.

Summit Station

The Summit Station is located near Archer and Center avenues. This intermodal station provides access to Amtrak and Metra trains, Pace buses and the Illinois highway network.

Amtrak

Three out of the four Lincoln Service trains stop daily at this station. Amtrak had 11,055 passengers board or alight at this station in 2016, which is up 57.7 percent from 7,612 boardings and alightings in 2010.

The top origins or destinations for people boarding or alighting at this station were Normal, St. Louis, Springfield, Alton, Carlinville, Lincoln, Pontiac, Dwight and Chicago (to transfer to or from another Amtrak train outside of northeastern Illinois).

Metra

All the Heritage Corridor Line's three northbound and four southbound trains stop at Summit Station during the week. There is no weekend service on the Heritage Corridor Line.

In 2014, Metra had 86 boardings at this station, which is 34.4 percent higher than the 64 boardings in 2006.

Pace Bus

Route 307 (Harlem) serves Summit Station.

Highway and Aviation Networks

The Summit Station has convenient access to I-55, U.S. 45, IL-43, and IL-171. It is also close to Midway Airport.

2.1.3 Intercity Passenger Rail Service Performance Evaluation

Section 207 of the Passenger Rail Investment and Improvement Act of 2008 (Division B of Pub. L. 110-432) mandated that the Federal Railroad Administration and Amtrak, in consultation with other parties, jointly develop new or improved metrics and minimum standards for measuring the performance and service quality of intercity passenger train operations[67].

These metrics and standards shall include at a minimum the percentage of avoidable and fully allocated operating costs covered by each route's passenger revenues, ridership per train mile operated, and measures of on-time performance and delays that intercity passenger trains incurred on each carrier's rail lines. For long-distance routes, this statute also required metrics to measure connectivity with other routes in all regions currently receiving Amtrak service and to identify the transportation needs of communities and populations where other forms of intercity transportation do not serve them well[68].

Section 207 of PRIIA and the performance measurements that the Federal Railroad Administration and Amtrak developed to implement it create comprehensive new financial, operating, customer service and service quality metrics with aggressive standards that Amtrak services are to achieve by fiscal year 2014. All metrics and standards will be measured and applied on a quarterly basis, except where otherwise noted. Section 207 metrics cover the following:

Financial / Operating Metrics

- Cost Recovery
- Loss per Passenger Mile
- Passenger Miles per Train Mile

On-Time Performance (OTP) and Train Delay Metrics

- Effective Speed
- Endpoint On-Time Performance
- All Stations On-Time Performance
- Host and Amtrak Train Delays

Customer Satisfaction Metrics

- Overall
- Personnel
- Communications
- On-Board
- Station

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67 https://www.google.com/search?q=Section+207+of+the+Passenger+Rail+Investment+and+Improvement+Act+of+2008+%28Division+B+of+Pub.+L.+110-432%29+%28PRIIA%29+mandated+that+the+Federal+Railroad+Administration+%28FRA%29+and+Amtrak%2C+in+consultation+with+other+parties%2C+jointly+develop+new+or+improved+metrics+and+minimum+standards+for+measuring+the+performance+and+service+quality+of+intercity+passenger+train+operations&ie=utf-8&oe=utf-8

68 http://98.139.236.92/search/srpcache?p=DOT+metrics+and+standards+for+intercity+passenger+rail&ei=UTF-8&hspart=mozilla&hsimp=yhs-002&fr=yhs-mozilla-002&u=http://webcache.googleusercontent.com/search?q=cache:I-MyviSUIr8J:https://www.fra.dot.gov/Elib/Document/1511%20DOT%20metrics%20and%20standards%20for%20intercity%20passenger%20rail&icp=1&.intl=us&sig=CvkRRbpwqN_g82syS4yRJg--

- Sleeping Car Experience

Components of financial metrics and on-time performance metrics are listed and defined briefly in the Appendix section.

	Reported by	Standard		Comment
Financial/Operating				
Short-term avoidable operating cost recovery	Route	Continuous Year Over Year Improvement on an 8 quarter moving average		Excludes capital charges Reported with and without State subsidey included in revenue
Fully allocated operating cost recovery	Route			
Long-term avoidable operating loss per passenger-mile	Route			
Adjusted loss per passenger-mile	System			
Passenger-miles per train-mile	Route			
On-Time Performance and Train Delays				
OTP *(All tests must be met to pass OTP standard)*				
Change in "Effective Speed"	Route	Equal to or better than the average effective speed during FY08		Applies for each rolling four-quarter period.
Endpoint OTP*	Route	*FY10*	*FY14*	
Acela		*90%*	*95%*	
Other NEC routes		*85%*	*90%*	
Other corridor routes		*80%*	*90%*	
Long distance		*80%*	*85%*	
All Stations OTP*	Route	*FY10*	*FY14*	Begins FY12, but must be published immediately
Acela		*90%*	*95%*	
Other NEC routes		*85%*	*90%*	
Other corridor routes		*80%*	*90%*	
Long distance		*80%*	*85%*	
Train Delays - Off NEC				
Amtrak-responsible delays per 10,000 train-miles	Route	325 minutes / 10,000 train-miles		
Host-responsible delays per 10,000 train-miles	Route, Host	900 minutes / 10,000 train-miles		
Train Delays - On NEC Only				
Acela	Route, Host	265 minutes / 10,000 train-miles		
Other NEC routes		475 minutes / 10,000 train-miles		
Other Service Quality				
CSI - Percent of Passengers "Very Satisfied" with:		*FY10*	*FY14*	
Overall service	Route	82%	90%	
Amtrak personnel		80%	90%	
Information given				
On-board comfort				
On-board cleanliness				
On-board food service				
Overall station experience		tbd		future metric
Overall sleeping car experience				
For Information Only				
Equipment-caused service Interruptions / 10,000 train-miles	Route	-	-	No standard proposed; Intended to reflect objectively the quality of mechanical maintenance as perceived by the passenger
Passenger comment data by category / business line	Type of Route	-	-	No standard proposed; Presented as supplementary information
Public Benefits				
Connectivity: % of passengers connecting to/from other routes	Long Distance Route	-	-	No standard possible, improvement could require network changes
Availability of other modes: % of passengers-trips to/from underserved communities	Route, System	-	-	No standard possible, improvement could require network changes
Energy-saving and environmental measures	tbd	-	-	Future

	OTP (Maximum Minutes of Delay for "On Time Arrival")					
	Endpoint					All Stations
	<251 miles	251-350 miles	351-450 miles	451-550 miles	>551 miles	All Trip Lengths
All Routes, exc. Acela	10	15	20	25	30	15
Acela	10	na	na	10	na	10

Figure 2.1.3.1 Federal Railroad Administration and Amtrak-Established Set of Metrics and Standards[69]

[69] https://www.amtrak.com/ccurl/676/676/PRIIA-section-210-FY-12-performance-improvement-plan-amtrak,0.pdf

Table 2.1.3-1 Percentage of fully allocated operating costs covered by passenger related revenue[70] (including state revenue)

	Service	Current Period (Oct. 12- Sept. 14)	Prior Period (Oct. 11-Sept. 13)	Prior Report (July 12-June 14)
Non-Northeast Corridor	Hiawatha	90%	89%	91%
	Hoosier State	22%	11%	19%
	Carl Sandburg/Illinois Zephyr	83%	83%	86%
	Illini/Saluki	79%	75%	79%
	Lincoln Service	84%	69%	81%
	Blue Water	86%	81%	88%
	Pere Marquette	75%	86%	77%
	Wolverine	61%	46%	59%
Long-Distance Routes	California Zephyr	44%	42%	43%
	Capitol Limited	47%	48%	47%
	Cardinal	33%	32%	32%
	City of New Orleans	47%	49%	48%
	Empire Builder	53%	54%	54%
	Lake Shore Limited	50%	50%	50%
	Southwest Chief	42%	41%	41%
	Texas Eagle	46%	46%	48%

[70] https://www.fra.dot.gov/eLib/Details/L17085

Table 2.1.3-2 Percentage of Fully Allocated Operating Costs Covered by Passenger Related Revenue (Excluding State Revenue)

	Service	Current Period (Oct. 12- Sept. 14)	Prior Period (Oct. 11- Sept. 13)	Prior Report (July 12- June 14)
Non-Northeast Corridor	Hiawatha	68%	64%	68%
	Hoosier State	10%	11%	10%
	Carl Sandburg/Illinois Zephyr	35%	34%	35%
	Illini/Saluki	47%	45%	48%
	Lincoln Service	46%	40%	45%
	Blue Water	48%	44%	48%
	Pere Marquette	46%	52%	47%
	Wolverine	48%	46%	49%
Long-Distance Routes	California Zephyr	44%	42%	43%
	Capitol Limited	47%	48%	47%
	Cardinal	33%	32%	32%
	City of New Orleans	47%	49%	48%
	Empire Builder	53%	54%	54%
	Lake Shore Limited	50%	50%	50%
	Southwest Chief	42%	41%	41%
	Texas Eagle	46%	46%	48%

Table 2.1.3-3 Passenger-miles per train-mile

	Service	Current Period (Oct. 12- Sept. 14)	Prior Period (Oct. 11-Sept. 13)	Prior Report (July 12- June 14)
Non-Northeast Corridor	Hiawatha	152	156	152
	Hoosier State	68	70	69
	Carl Sandburg/Illinois Zephyr	98	103	100
	Illini/Saluki	132	135	133
	Lincoln Service	138	142	138
	Blue Water	169	168	168
	Pere Marquette	124	130	124
	Wolverine	123	124	123
Long-Distance Routes	California Zephyr	171	175	172
	Capitol Limited	200	200	199
	Cardinal	128	134	129
	City of New Orleans	168	175	169
	Empire Builder	188	211	199
	Lake Shore Limited	234	242	236
	Southwest Chief	188	191	187
	Texas Eagle	190	194	193

Table 2.1.3-4 Adjusted (Loss) per Passenger-Mile (Including State Revenue (In Year 2014 Constant Dollars)

Current Period (Oct. 12- Sept. 14)	Prior Period (Oct. 11-Sept. 13)	Prior Report (July 12-June 14)
$0.044	$0.058	$0.043

Table 2.1.3-5 Adjusted (Loss) per passenger-mile (excluding state revenue (Year 2014) constant dollars)

Current Period (Oct. 12- Sept. 14)	Prior Period (Oct. 11-Sept. 13)	Prior Report (July 12-June 14)
$0.076	$0.086	$0.074

Table 2.1.3-6 On-Time Performance

	Service	Test #1 Change in Effective Speed from FY 2008 Baseline (mph)	Test #2 Endpoint OTP	Test #3 All-Stations OTP
		Last Four Quarters	4th Quarter FY 2014	4th Quarter FY 2014
	Standard	>=0	80.00%	80.00%
Non-Northeast Corridor	Hiawatha	-0.5	93.90%	97.50%
	Hoosier State	0.2	57.10%	61.10%
	Carl Sandburg/Illinois Zephyr	-2.1	84.20%	80.00%
	Illini/Saluki	0.7	59.80%	47.20%
	Lincoln Service	1	46.60%	53.10%
	Blue Water	3.7	37.50%	53.60%
	Pere Marquette	1	22.80%	60.00%
	Wolverine	0.5	27.50%	49.10%
Long-Distance Routes	California Zephyr	1.80	8.70%	17.90%
	Capitol Limited	-0.8	2.70%	20.40%
	Cardinal	0.5	29.10%	33.20%
	City of New Orleans	0.70	82.10%	52.90%
	Empire Builder	-4.3	31.00%	22.60%
	Lake Shore Limited	-2.60	17.90%	15.30%
	Southwest Chief	-0.7	40.80%	28.60%
	Texas Eagle	1.7	42.90%	29.30%

Table 2.1.3-7 OFF-NEC Host Responsible Delays by Service (Minutes of Delays per 10,000 Train-Miles)

	Service	Host Name	OFF-NEC Host Responsible Total Delay	Route Miles
Standard			900	
Non-Northeast Corridor	Hiawatha	CP	236	53
		Metra	1320	29
	Hoosier State	CSX	1493	169
	Carl Sandburg/ Illinois Zephyr	BNSF	1048	257
	Illini/ Saluki	CN	1196	306
	Lincoln Service	CN	1289	37
		UP	1584	231
	Blue Water	Amtrak	1406	99
		CN	908	159
		MIDOT	2935	22
		NS	7394	39
	Pere Marquette	CSX	512	135
		NS	7177	39
	Wolverine	Amtrak	1308	99
		CN	3132	27
		MIDOT	1119	134
		NS	6404	39
Long-Distance Routes	California Zephyr	BNSF	1752	1027
		UP	1202	1431
	Capitol Limited	CSX	1483	307
		NS	4035	481
	Cardinal	BBRR	1244	132
		CSX	1494	698
		NS	1179	79
	City of New Orleans	CN	1197	930
	Empire Builder	BNSF	2026	2147
		CP	1208	384
		Metra	1569	29

Table 2.1.3.7 OFF-NEC Host Responsible Delays by Service (Minutes of Delays per 10,000 Train-Miles) (Continued)

Service	Host Name	OFF-NEC Host Responsible Total Delay	Route miles
Lake Shore Limited	CSX	1871	741
	MNRR	2153	64
	NS	4579	339
Southwest Chief	BNSF	851	2198
	NMDOT	1810	80
Texas Eagle	BNSF	2140	126
	CN	2152	37
	UP	1673	1104

Table 2.1.3-8 OFF-NEC AMTRAK Responsible Delays by Service (Minutes of Delays per 10,000 Train-Miles)

	Service	OFF-NEC AMTRAK Responsible Delay[71](minutes)
	Standard	325
Non-Northeast Corridor	Hiawatha	298
	Hoosier State	723
	Carl Sandburg/Illinois Zephyr	210
	Illini/Saluki	421
	Lincoln Service	193
	Blue Water	480
	Pere Marquette	608
	Wolverine	499
Long-Distance Routes	California Zephyr	451
	Capitol Limited	437
	Cardinal	496
	City of New Orleans	330
	Empire Builder	598
	Lake Shore Limited	562
	Southwest Chief	366
	Texas Eagle	594

[71] A train is considered "late" if it arrives at its endpoint terminal more than 10 minutes after its scheduled arrival time for trips up to 250 miles; 15 minutes for trips 251-350 miles; 20 minutes for trips 351-450 miles; 25 minutes for trips 451-550 miles; and 30 minutes for trips of 551 or more miles. These tolerances are based on former ICC rules.

Table 2.1.3-9 Customer Service Indicator (CSI) Scores

	Service	4th Quarter FY 2014					
		Overall Service	Amtrak Personnel	Information Given	On-Board Comfort	On-Board Cleanliness	On-Board Food Service
	2010 Standard	82	80	80	80	80	80
Non-Northeast Corridor	Hiawatha	93	90	85	93	75	N/A
	Hoosier State	78	86	78	75	70	N/A
	Carl Sandburg/Illinois Zephyr	92	86	81	86	79	73
	Illini/Saluki	83	85	77	83	73	71
	Lincoln Service	82	81	75	80	66	65
	Blue Water	74	79	75	75	63	64
	Pere Marquette	80	83	76	89	80	63
	Wolverine	65	81	71	76	63	60
Long-Distance Routes	California Zephyr	66	78	64	74	57	61
	Capitol Limited	63	79	62	74	63	64
	Cardinal	66	69	59	70	54	53
	City of New Orleans	82	83	78	76	68	75
	Empire Builder	58	74	58	67	49	58
	Lake Shore Limited	47	65	46	62	44	49
	Southwest Chief	74	79	69	72	59	68
	Texas Eagle	71	77	66	78	59	65

2.1.4 Rail Project Public Financing

Governments and agencies have many options for seeking funding or financing for rail-related projects and programs, especially at the federal level. This section details some of these options that are outlined in federal transportation law and other codes.

Project Financing – RRIF & TIFIA

The Railroad Rehabilitation & Improvement Financing program provides direct loans and loan guarantees for the development of railroad infrastructure. Governments or private railroads may receive this funding to acquire, improve, or rehabilitate rail infrastructure, establish new rail or multimodal facilities, or refinance debt. Borrowers may fund up to 100 percent of a project with repayment periods of up to 35 years.

The Transportation Innovation and Finance Credit Program can finance up to 33 percent of total eligible project costs if the project meets the following criteria: 1) It is eligible for federal assistance through existing surface transportation programs; 2) it is included in the Statewide Transportation Improvement Program; 3) it is supported at least in part through user fees or dedicated non-federal funding sources; and 4) it costs at least $50 million. If it is an intelligent transportation system project, it can be eligible if it costs at least $15 million.

Commuter Rail Capital Funding

5309 Capital Investment Grants

The Capital Investment Grant Program under 49 U.S.C. §5309 is the Federal Transit Administration's primary program for funding major capital transit projects. These projects may receive funding through the New Starts and Core Capacity programs after completing project development and engineering or through the Small Starts program after completing project development.

This is a discretionary grant program rather than a competitive one. The Federal Transit Administration evaluates the projects over several years based on justification and local financial commitment and selects projects for funding.

The budget that President Trump proposed on March 16, 2017, severely limits New Starts funding.

5309 Expedited Project Delivery for Capital Investment Grants Pilot

Up to eight projects over the life of this pilot program may receive expedited grant awards if they are supported through a public-private partnership and demonstrate local financial commitment, technical capacity and certification of a state of good repair for the existing system.

CMAQ Flexible Funding Programs

The Congestion Mitigation and Air Quality Improvement Program provides formula funding to non-attainment and maintenance areas with unacceptable levels of ozone, carbon monoxide and/or particulate matter. States with no non-attainment or maintenance areas still receive a minimum amount of funding for air quality projects. These funds may be used for any transit capital expenditures eligible for FTA funding if they have an air quality benefit.

Surface Transportation Block Grant Flexible Funding Programs

Surface Transportation Block Grant Flexible Funding Programs provide funding that may be used for a variety of projects to preserve and improve the conditions and performance of surface transportation, including highways, transit, intercity bus, and bicycle and pedestrian projects. State and local governments are eligible to receive these funds.

Public Transportation Emergency Relief Program

The Public Transportation Emergency Relief Program authorizes Section 5307 and 5311 funds to respond to a declared disaster. These funds may be used to protect, repair or replace facilities and equipment that have suffered or may suffer serious damage because of an emergency, including a natural disaster.

5312 Public Transportation Innovation

The Public Transportation Innovation Grants Program provides funding to develop innovative products and services that help transit agencies better meet their customers' needs. Grantees may use these funds for research, development, demonstration and deployment, or evaluation. Eligible recipients are determined for each grant competition and may include universities, transit agencies, state DOTs, non-profits or private businesses.

5337 State of Good Repair

The State of Good Repair Grants Program provides capital assistance to help transit agencies maintain rolling stock, track, equipment, stations and facilities in a state of good repair. Projects that maintain a fixed guideway or high-intensity bus system are eligible to receive funds, which may cover up to 80 percent of net capital project costs.

TIGER Grants

The Transportation Investment Generating Economy Recovery grant program supports innovative projects, many of them multimodal and multi-jurisdictional that are difficult to fund through traditional federal programs. These funds leverage money from states, local governments, metropolitan planning organizations, transit agencies and the private sector to improve access to safe, reliable and affordable transportation.

The budget that President Trump proposed on March 16, 2017, eliminates TIGER grants.

5307 Urbanized Area Formula Grants

Under the Urbanized Area Formula Funding Program, the federal government provides federal resources for transit capital and operating assistance and planning related to transportation for urban areas with a population of 50,000 or more that the U.S. Census Bureau has designated. Grantees may use these funds to cover up to 80 percent of capital expenditures (90 percent under certain provisions of the Americans with Disabilities Act or the Clean Air Act) or 50 percent of operating expenditures. Eligible activities include planning, engineering and design of transit projects and studies, and capital investments, including vehicles and equipment.

The Federal Transit Administration apportions funds directly to designated recipients for urbanized areas with a population of 200,000 or more. For urbanized areas with populations between 50,000 and 200,000, the Federal Transit Administration apportions funds to each state's governor, who then distributes the funds.

Commuter Rail Operating Funding

Sales and Use Taxes

The state charges various local sales and use taxes on sales conducted in a mass transit district. Illinois has the Regional Transportation Authority in the six-county Chicago metropolitan area and the Metro-East Mass Transit District in the St. Louis metropolitan area within Illinois.

Public Transportation Fund

The Public Transportation Fund is the Chicago metropolitan area's primary state funding source. It is 30 percent of revenue from the Regional Transportation Authority's sales tax and 30 percent of revenue from the Chicago Transit Authority's portion of Chicago's real estate transfer tax.

Likewise, the Downstate Public Transportation Fund is the Illinois part of the St. Louis metropolitan area's primary state funding source. It is a proportion of the sales taxes in the Metro-East Transit District.

Reduced Fare

Illinois offers free rides on all fixed-route public transit systems for seniors and people with disabilities who meet certain income requirements and apply for benefit access.

Amtrak Capital & Operating Funding

Amtrak Capital Grants

The Federal Railroad Administration executes and oversees grant agreements with Amtrak to provide federal funds that Congress appropriates. Amtrak and the United States Department of Transportation annually recommend the amount of this appropriation to Congress. Amtrak uses these funds with state and local funds and operating revenues to pay operating expenses, repay capital debts, maintain its fleet and infrastructure, and plan and implement expansions.

The budget that President Trump proposed on March 16, 2017 eliminates Amtrak's long-distance services while maintaining shorter-distance intercity trips.

High Speed Intercity Passenger Rail Program (HSIPR)

The Federal Railroad Administration provides High Speed Intercity Passenger Rail (HSIPR) grants for Amtrak and the States to plan and develop high-speed intercity passenger rail corridors. These corridors may be upgraded existing routes or new rail routes that connect the nation's mega-regions, especially those that have or will likely have significant population growth.

Freight Rail Capital Funding

CREATE

The Chicago Region Environmental and Transportation Efficiency (CREATE) Program is a partnership of the United States Department of Transportation, the State of Illinois, the City of Chicago, Metra, Amtrak, and the freight railroads. This partnership seeks to implement capital improvements in Northeastern Illinois that increase the efficiency of passenger and freight rail trains. These improvements consist of 70 projects that include track grade separations, viaduct improvements, safety enhancements, equipment upgrades, and integration of regional dispatch information.

CREATE's six Class I railroads have contributed $289 million of their own equity to support this program. Federal, state, and local governments have contributed an additional $1.02 billion and other sources have contributed $286.5 million.

Illinois Rail Freight Loan Program

The Illinois Rail Freight Loan Program provides low-interest loans to freight railroads in Illinois to finance capital projects that improve access to markets and generate transportation cost savings.

Rail Line Relocation & Improvement Capital Grant Program

The Rail Line Relocation & Improvement Capital Grant Program is a federal program intended to help state and local governments mitigate the adverse effects of rail infrastructure in communities. States, counties, and cities may apply for funding that improves a rail line's route or structure and mitigates the adverse effects of rail traffic on safety, vehicle traffic, quality of life, or economic development. Pre-construction activities are also eligible for funding, but planning and feasibility studies are not.

Railroad Rehabilitation & Repair (Disaster Assistance Program)

The Consolidated Security, Disaster Assistance, and Continuing Appropriations Act provides $20 million that the United States Secretary of Transportation can award to States on a competitive, case-by-case basis for repairs and rehabilitation of Class II and Class III railroad infrastructure that was damaged by a natural disaster in an area that the President has declared a major disaster. Grantees may use these funds to cover up to 80 percent of the project cost.

FAST Act and FASTLANE

On December 4, 2015, President Obama signed into law the Fixing America's Surface Transportation (FAST) Act, the newest and current federal transportation funding bill. While the FAST Act established several new transportation funding sources, only the Nationally Significant Freight and Highway Projects (NSFHP) program is applicable to rail. It provides federal assistance for major freight and highway projects.

The FAST Act's grants are called FASTLANE (Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies) grants. They are competitive grants which provide funds for projects addressing critical freight issues on the nation's highways and bridges as well as freight infrastructure, including rail or multimodal.

2.1.5 Rail Transportation Safety and Security

Rail safety has historically been and continues to be a priority for the railroads, the ICC, and IDOT. Safety has potential impacts on the general public and the efficiency of rail operations. Although the major railroads have long had their own police and security forces, the focus of rail safety is more recent, with an emphasis on the potential threat of terrorists using the rail mode to disrupt transportation in general or to harm large numbers of citizens.

A number of federal and Illinois state agencies, in concert with railroads and rail operators, continue to make progress with regard to rail safety and security. The following is a summary of these issues and ongoing activities in Illinois.

Rail Safety in Illinois

Rail safety requirements are provided through a combination of federal and state laws. Most safety-related rules and regulations fall under the jurisdiction of the FRA, as outlined in the Rail Safety Act of 1970 and other legislation, such as the most recent Rail Safety Improvement Act of 2008. Many of FRA's safety regulations may be found in Title 49 Code of Federal Regulations Parts 200-299.

Rail passenger operations are subject to the same FRA safety standards with regard to track safety, operating practices, and other areas, as are freight railroads. In addition, FRA has specific regulations regarding passenger equipment safety standards and passenger train emergency preparedness.

As passenger equipment technology improves, FRA's Railroad Safety Advisory Committee (RSAC) makes recommendations to FRA for proposed improvements to continually upgrade existing safety standards. FRA then issues the final rule at the conclusion of its rule-making process.

Rail safety issues generally fall into the following broad categories:

- Employee safety
- Inspection and maintenance of track, signals, bridges, and infrastructure
- Inspection of locomotives and cars
- Operating rules and practices
- Radio communications
- Control of drug and alcohol use
- Accident reporting
- Rail-highway grade crossing safety
- Passenger equipment safety standards
- Passenger train emergency preparedness
- Movement of hazardous materials
- Development and implementation of new technology
- Other areas specific to the rail industry.

The primary responsibility for enforcement of federal rail safety regulations falls under FRA's jurisdiction. In Illinois, the ICC also actively participates in the enforcement of federal regulations as authorized by 49 CFR Part 212. IDOT is also involved in efforts to improve the safety of the rail system. Rail safety trends in Illinois are shown below, per FRA railroad safety statistics.

Table 2.1.5-1 Total Train Accidents/Incidents in Illinois, 2008-2016[72]

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Incidents	1,160	1,037	1,088	1,013	874	975	1,030	989	831
Fatalities	71	41	61	48	39	34	48	42	45
Injuries	873	821	827	805	665	717	758	728	619
Train Accidents	189	181	175	194	145	184	187	199	132
Fatalities	0	1	0	0	2	0	0	0	0
Injuries	8	20	17	23	10	4	7	1	4
Highway-Rail Incidents	153	106	128	105	109	126	136	142	120
Fatalities	27	18	28	17	17	13	21	21	22
Injuries	74	50	40	73	40	40	54	88	43

[72] FRA Office of Safety Analysis

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Other Incidents	818	750	785	714	620	665	707	648	579

Fatalities	44	22	33	31	20	21	27	21	23
Injuries	791	751	770	709	615	673	697	639	572

Total rail-related incidents are the sum of train accidents, crossing incidents, or other accidents or incidents occurring in Illinois that were reported to FRA. Train accidents include train derailments, collisions, and other events involving on-track rail equipment that results in monetary damage above a threshold set by FRA. Highway-rail incidents are any impact between a rail and highway user at a crossing site. Other incidents include other events that cause fatalities or injuries, including trespassing, as well as employees getting on and off equipment, performing maintenance work, etc.

These numbers show a decrease in the total number of incidents, as well as resulting fatalities and injuries, between 2008 and 2016.

Grade Crossing Safety in Illinois

The rail safety area most visible to the public and the most potential harm to the public is the interface between the rail and highway systems at grade crossings. Currently, there are a total of 7,651 public at-grade crossings in Illinois. There are also 3,469 at-grade crossings on private property (which are not under the jurisdiction of the State) and 320 pedestrian crossings.[73] Illinois has the second-highest number of public highway-rail at-grade crossings in the United States, behind only Texas. Illinois also has the second-most highway-rail crossings per mile of roadway, behind only Indiana, at one crossing every 18 miles.[74]

As noted, the ICC and IDOT have aggressively invested in and improved safety warning devices at highway-rail grade crossings in the State and have worked toward grade separating crossings at the most hazardous locations. IDOT and the Union Pacific Railroad are cooperating in the use of enhanced grade crossing warning devices targeting pedestrians near certain commuter rail stations on the Metra UP West Line in Chicago's western suburbs. IDOT actively pursues the closing of grade crossings, offering local roadway agencies incentives for the voluntary closure of redundant crossings.

IDOT is also interested in eliminating grade crossings, particularly in areas such as the Chicago-St. Louis High Speed Intercity Passenger Rail Corridor now under construction. The ICC is actively involved in the national Operation Lifesaver safety program, which targets both motorists and pedestrians in a continuing effort to reduce train-related incidents in these categories. The number of grade crossing incidents and fatalities/injuries have generally decreased over the period covered. This decrease is at least partly attributed to the State's emphasis on education, especially through the Operation Lifesaver program, enforcement of laws that provide fines to persons crossing railroads tracks after warning signals have activated, and the grade crossing physical and warning signal safety improvements implemented through the State's capital programs.

[73] https://www.icc.illinois.gov/railroad/crossingsafetyimprovement.aspx
[74] http://safetydata.fra.dot.gov/officeofsafety/publicsite/Query/invtab.aspx

Rail Safety Inspection

FRA enforces federal regulations and standards that apply to track, signal, bridges, train control, hours of service, noise, motive power and cars, operating rules and practices, hazardous materials, and several other areas. The federal Rail Safety Act of 1970 authorized states to work with FRA to enforce railroad regulations at their expense. Illinois participates in the FRA-certified inspection programs through the ICC's Rail Safety Section, which exercises oversight of freight railroads. The major areas of rail safety handled by the Rail Safety Section inspectors and typical responsibilities include:

- **Track Safety** – Inspect railroad tracks to determine compliance with FRA and Illinois Track Safety Standards, and investigate complaints of unsafe trackage, excessive train speeds, and improper yard procedures.

- **Hazardous Materials** – Conduct equipment inspections at railroad yards, sidings and interchange tracks, railroad terminals, and along mainlines to observe and note violations in marking, placarding, and the placement of hazardous material cars.

- **Railroad Signals and Train Control** – Inspect railroad signal systems to determine compliance with FRA and State Signal Safety Standards, investigate complaints of unsafe or defective signals, and perform railroad crossing signal inspections.

- **Railroad Operating Practices** – Conduct inspections for the purpose of determining compliance with all sections of the Federal Operating Practice Regulations and Hours of Service Act, and inspection of railroad facilities to determine compliance with standards regarding structural clearances, employee facilities, and sanitary regulations.

Hazardous Materials

Federal common carrier obligations mandate that railroads transport all commodities tendered for transport, including hazardous materials. USDOT received the authority to regulate the transportation of hazardous materials through the Hazardous Materials Act. Federal hazardous material regulations apply to all interstate, intrastate, and foreign carriers by rail, air, motor vehicle, and vessel. The ICC enforces the hazardous materials regulations in Illinois, in cooperation with the FRA.

At the state level, the ICC oversees the Hazardous Materials Safety Program. The ICC's Hazardous Materials Safety Program is comprised of four main components:

- Inspection of railroad equipment and shipper/consignee facilities
- The provision of technical assistance to shippers/consignees and rail carriers
- The inspection and transport of nuclear materials
- Education and outreach activities to shippers/consignees, rail carriers, emergency responders, and the general public

In 2016, ICC Hazardous Materials Inspectors conducted 268 rail hazardous material inspections, which entailed inspecting 16,294 rail cars, and identified 361 defects, a rate of 22 defects per 1,000 units.[75]

[75] Annual Report on Accidents/Incidents Involving Hazardous Materials on Railroads in Illinois 2016, Mar. 29, 2017.

Positive Train Control

Positive train control (PTC) refers to technologies designed to automatically stop or slow a train before certain accidents occur. PTC is designed to prevent collisions between trains and derailments caused by excessive speed, trains operating beyond their limits of authority, incursions by trains on tracks under repair, and by trains moving over switches left in the wrong position. PTC systems are designed to determine the location and speed of trains, warn train operators of potential problems, and take action if operators do not respond to a warning.

The Rail Safety Improvement Act of 2008 required railroads to place PTC systems in service by December 31, 2015 on Class I railroads with over 5 million gross tons per mile and either commuter or intercity passenger operations or any amount of toxic or poison-by-inhalation hazardous materials. PTC requirements currently exclude Class II or Class III railroads that have no passenger service. However, trains of Class II and III railroads that operate on lines that must have PTC are also required to be PTC-equipped.

Because of the immense cost associated with implementing PTC over an estimated 70,000 miles of affected tracks, Congress extended the deadline for PTC implementation to December 31, 2018, with the possibility of an additional two-year extension under some circumstances. As part of the extension, railroads were required to submit a PTC Implementation Plan outlining when and how they would have their PTC system fully installed and activated.

As envisioned for near-term implementation, PTC will be an overlay to the traffic management systems in place on today's railroads, and will be aimed primarily at achieving safety benefits. For example, PTC safeguards will be integrated with existing systems, whereby only one train at a time can be in a train block. PTC also has the potential to offer a wide variety of improvements for safety at at-grade crossings as well as customer service for both cargo and passengers hauled on the rail system.

Rail Security

Rail security is a part of rail safety has been continually evolving in the last 15 years. The following addresses specific rail security issues and Illinois' involvement in rail security procedures.

Federal and State Roles in Rail Security

The primary agencies responsible for security related to transportation modes in Illinois are the U.S. Department of Homeland Security (DHS) and IDOT. These agencies have addressed transportation security largely through identifying critical infrastructure assets, developing protection strategies for these assets, and developing emergency management plans.

DHS addresses rail system security through the following means:

- Training and deploying manpower and assets for high-risk areas
- Developing and testing new security technologies
- Performing security assessments of systems across the country
- Providing funding to state and local partners

The Association of American Railroads (AAR), working with DHS and other federal agencies, has organized the Rail Security Task Force. This task force developed a comprehensive risk analysis and security plan for the rail system that includes:

- A database of critical railroad assets

- Assessments of railroad vulnerabilities
- Analysis of the terrorism threat
- Calculation of risks and identification of countermeasures

The railroad sector maintains communications with the U.S. Department of Defense, DHS, the USDOT, the Federal Bureau of Investigation, and state and local law enforcement agencies on all aspects of rail security.

The lead state agency for rail security in Illinois is the ICC, in coordination with IDOT and the Illinois Terrorism Task Force (ITTF). There are currently five committees that serve the ITTF, and IDOT is the chair of the Critical Infrastructure Committee (CIC). The CIC includes organizations ranging from institutions and industry representatives to emergency responders and labor organizations. The CIC also maintains an affiliation with more than 20 industry stakeholders.

The CIC uses Work Groups to provide guidance on specific topics and areas deemed to be of greatest priority. One such group is the Railroad Safety Subcommittee, which focuses on areas of common interests within the railroad industry to address all aspects of railroad security. The Subcommittee works to provide a common goal of making Illinois a leader in railroad security that other states will easily be able to adopt using combined talents to achieve the maximum assistance from resources available through DHS.

Strategic Rail Corridor Network

The U.S. Military Surface Deployment and Distribution Command's Transportation Engineering Agency has identified the national Strategic Rail Corridor Network (STRACNET), a 32,000-mile interconnected network of rail corridors and associated connector lines most important to national defense. Illinois' STRACNET system consists of several key railroad lines throughout the state, which provide mainline corridor throughput capacity and access to major defense contractors and logistics sites, as well as military facilities critical to American national defense.

2.1.6 Rail Transportation Economic and Environmental Impacts

Congestion mitigation

By directing travelers off highways, passenger rail spares everyone from high automobile and truck volumes which cause pandemic congestion on existing road infrastructure. Similarly, rail represents an appealing alternative for short-and medium-haul travel, thus helping relieve congestion at airports as well as in the airspace. This is particularly important for Illinois, which is at the heart of the national interstate highway system and has two of the country's busiest airports (O'Hare and Midway). The diverted users to rail transportation will enjoy travel time savings, which also benefit the remaining users of highways and air transportation with reduced congestion. The reduction in travel time eventually translates into enhanced economic productivity.

On the freight side, shippers and carriers also receive benefits from congestion mitigation by using rail. Chicago has served as the nation's freight rail hub since the late 1800's, now accommodating 500 freight trains, or 37,500 railcars every day that carry commodities not only originated and destined to the Chicagoland and the state of Illinois but across the entire United States. The very

dense freight rail infrastructure and services save hundreds of thousands of trucks daily that would otherwise clog the interstate highways. The time savings lead to reduced logistics cost and ultimately benefit the US exporters, importers, and consumers.

Safety Impacts

Many studies have already shown that rail is safer than automobile travel. In the US, vehicle travel results in over 30,000 fatalities each year, compared to several hundred per year on trains. The safety impacts of rail can be both localized and non-localized. The most common safety impact is localized property damage resulting from a collision. On the other hand, injuries and fatalities are non-localized because they impact all members of society—not just those living close to crash sites—through their influence on healthcare costs.

Trade and Economic Development

Rail plays a significant role in supporting trade and economic development. Rail movements associated with domestic and international trade includes a vast variety of commodities. Today, the US freight rail system ensures that its network provides cost-effective transportation so that industries can reach consumers with low logistics cost and time. Rail transportation constantly generates jobs in diverse areas including construction, operation, and maintenance. As of 2015, the state of Illinois employed 7.2 percent of the nation's 181,465 employees with an average earning of $106,830 per year.

Furthermore, wages paid to employees in the rail transportation sector and expenditures on rail assets (equipment, facilities, etc.) have indirect and induced impacts which include generating tax revenues and supporting jobs in other industry sectors. The development of rail services also shapes economic geography, enhances market access, and supports the national, state, and local goals of economic competitiveness. A recent study by Towson University for the American Association of Railroads found that freight rail created $274 billion in economic activity, generated nearly $33 billion in state and federal tax revenues, and supported nearly 1.5 million jobs nationally in 2014 alone.

Energy Use, Air Quality, and Climate Change

Rail is widely recognized as a more energy efficient and greener mode – for both passenger and freight movements – than highway and air transportation. In comparison with highway modes, a primary source of its energy use advantage comes from the relatively low rolling resistance of steel wheels on steel rail, which requires a smaller amount of energy to pull passenger or freight cars with greater loading capacity than rubber-tired vehicles. Particularly for freight movements, a gallon of fuel can haul 473 ton-miles, which is four times as much as trucks. Depending on the load factor and vehicle characteristics, the energy efficiency of passenger rail is 1-4 times of air, and about 2-7 times of auto, according to a recent study by the Transportation Research Board of the National Academies.

In line with the energy use advantage, rail also brings insignificant environmental benefits. The emission intensity of passenger rail is only 15-67 percent that of auto or air. A typical container train can haul the same load as 100 trailer trucks, and a unit train takes 120 trucks off the road. By reducing greenhouse gases (GHG) and criteria pollutants (NOx, CO, SOx, etc.) emitted from cars, trucks, and airplanes, rail transportation contributes to reducing the climate impact of transportation overall and improving local air quality. The latter has implications for people's health (for example, the incidence of asthma) and the development of livable communities. However, one should note

that despite a net system-wide gain in air quality, some specific areas such as intermodal yards may suffer from worsening of local air quality due to concentrated truck movements for transloading.

Land use and community impacts

Passenger rail stations have land development impacts because increased human activities and greater accessibility both makes surrounding property locations more desirable as a place to live or work. This can lead to increased attraction of residential investment and business activity into the area –thus generating localized economic (job and income) impacts. The attraction of greater density and a more diverse mix of activity also helps to make surrounding areas become more livable and walkable. On the freight side, the land use impact of rail is mainly through the development and operation of rail and intermodal logistics facilities. Such logistics facilities stimulate the agglomeration of warehousing, manufacturing, and service industries that rely on rail to process and transport their goods and products. In fact, logistics real estate development has become one of the most dynamic and resilient segments of industry property markets in the US. This is particularly relevant in the state of Illinois where many rail-focused or involved logistics facilities are present. Prominent examples include the CenterPoint Intermodal Center in Elmwood and Joliet. It should be note that rail freight movements and related land uses, if not properly planned, have the potential to produce negative environmental impacts including noise and light pollution, unwanted odors, vibrations, safety concerns, and impacts to regional air and water quality. These impacts can be mitigated, however, to a great extent, by careful and smart regional planning, local land use and zoning, site and facility design, and operational considerations as part of a public transportation planning and land use planning, and zoning and permitting processes. If freight planning and land use decision-making activities are well integrated, both the public and private sector will benefit through reduced congestion, improved air quality and safety, enhanced community livability, improved operational efficiency, reduced transportation costs, and greater access to facilities and markets. The freight community can be considered "a good neighbor" when such a balance between economic activity and external impacts is achieved.

2.2 The State's Existing Rail System: Trends and Forecasts

2.2.1 Demographic and economic growth factors

Population

The estimated population by the U.S. Census Bureau for Illinois in 2015 was 12,808,000, which ranked 5th among the U.S. states; California, Texas, Florida, and New York are larger in terms of population. Over the past four years the state's population has increased by 2.34 percent, compared with a 3.9 percent population growth rate for the U.S. as a whole. Between 2000 and 2015, Illinois' population increased by 6.3 percent, which is significantly lower than the country's overall 14 percent growth during the same time period.

The U.S. Census Bureau[76] provides future population projections for public use. Illinois' information is provided to year 2025, while the U.S. Census projects to the year 2060. Population projections in five-year increments were used for both individual state and the country. Based on this information,

[76] https://www.census.gov/prod/2/pop/p25/p25-1131.pdf (last accessed on July 2017); https://www.census.gov/data/tables/2014/demo/popproj/2014-summary-tables.html (last accessed on July 2017)

between 2010 and 2025 the state's population is projected to increase by more than seven percent, reaching a total of more than 13.4 million people. Based on growth projections, an additional 1 million people will reside in Illinois by 2025, which would be about 2.6 percent of the entire country's growth (projected to increase by 38 million people). Figure 2.2.1 shows the projected population estimates for both Illinois and the United States. Compared to the estimated 12 percent growth for the United States as a whole, Illinois' projected population growth is expected to continue growing at a lower rate than the national average. Nonetheless, to support the growing population additional consumer goods and commodities will be required which is transported by rail, truck, and other means. The continued population growth also means increasing demand for intercity passenger rail services.

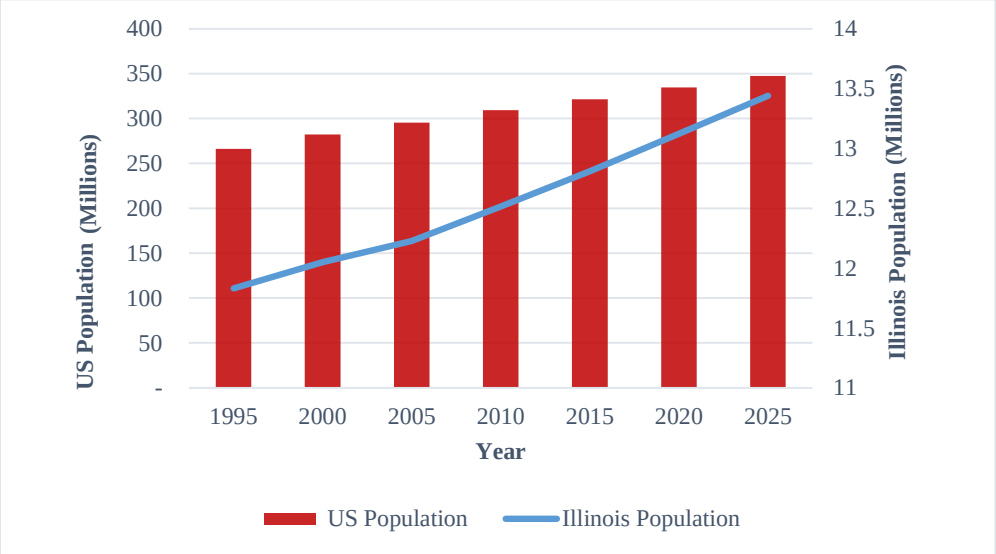

Figure 2.2.1 Projection of Population for Illinois and the United States

Employment

The most current wage and salary employment (i.e. base employment) figures indicate that approximately 6.3 million people were employed in the state as of 2014, based on the information from the Illinois Department of Employment Security (IDES)[77]. This data excludes farm and nonfarm proprietors' employment information. Using this employment growth projection, by 2024 the base employment will increase by about 0.4 million jobs, a 5.9 percent increase compared to the 2014 base employment scenario. Figure 2.2.2 depicts the state of Illinois' employment scenario for 2014 and projected employment for 2024 in different industries.

[77] http://www.ides.illinois.gov/LMI/Pages/Employment_Projections.aspx (last accessed on July, 2017)

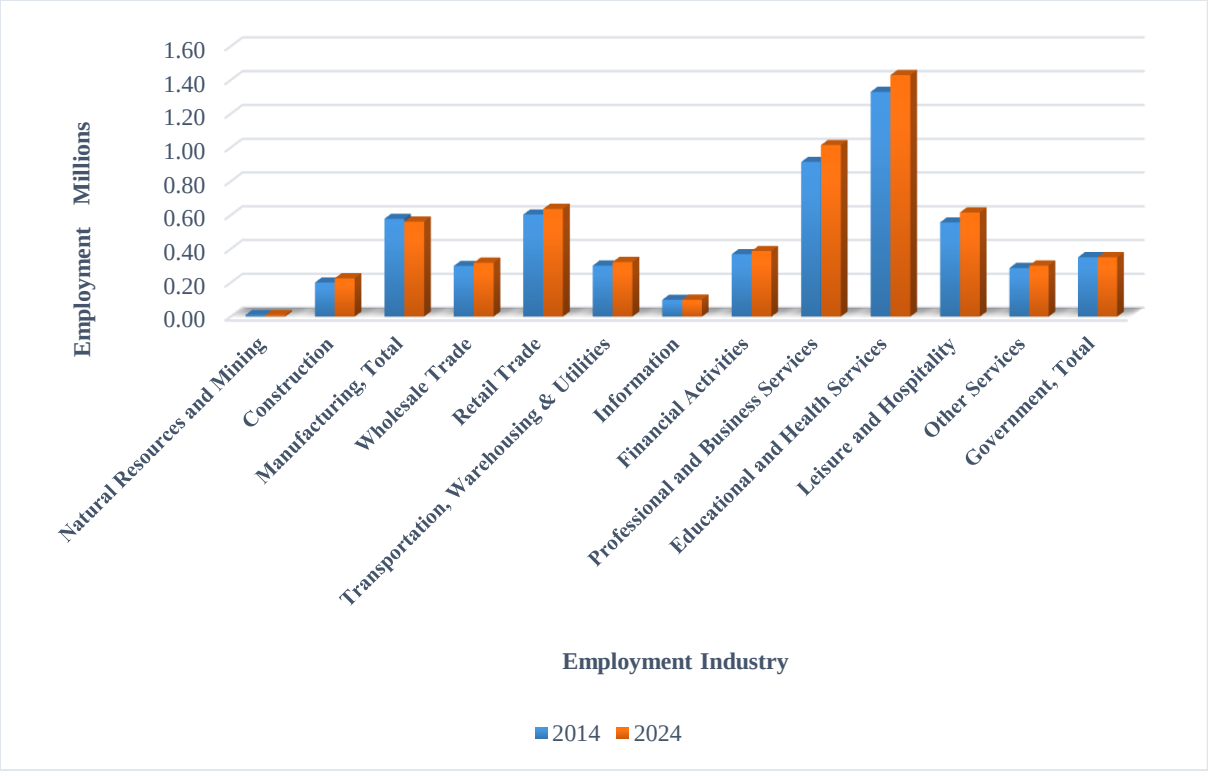

Figure 2.2.2 State of Illinois Industry Employment (2014 and 2024 projection)

Figure 2.2.3 displays the employment change between 2005 and 2013 against the Illinois GDP by employment sector in 2014. The graph highlights sectors with the largest impact on the Illinois economy and the job changes in those sectors. The size of the bubble represents the number of employments in a sector (2014). According to the BEA and the BLS, trade, transportation, and utilities have more than a million jobs, while professional and business services, education and health services, and government are closely behind. Of these sectors with large employments, the professional/business services (7 percent), education and healthcare (17 percent), and Leisure/hospitality (6 percent) industries have seen promising employment growth since 2005. In contrast, the construction, manufacturing, and financial sectors have decreased to different extents, ranging from nine to 30 percent. Since the majority of the dominant sectors in the state are decreasing in employment, this trend needs to be addressed to provide for the need of additional goods, components, commodities and services considering the increasing population trend.

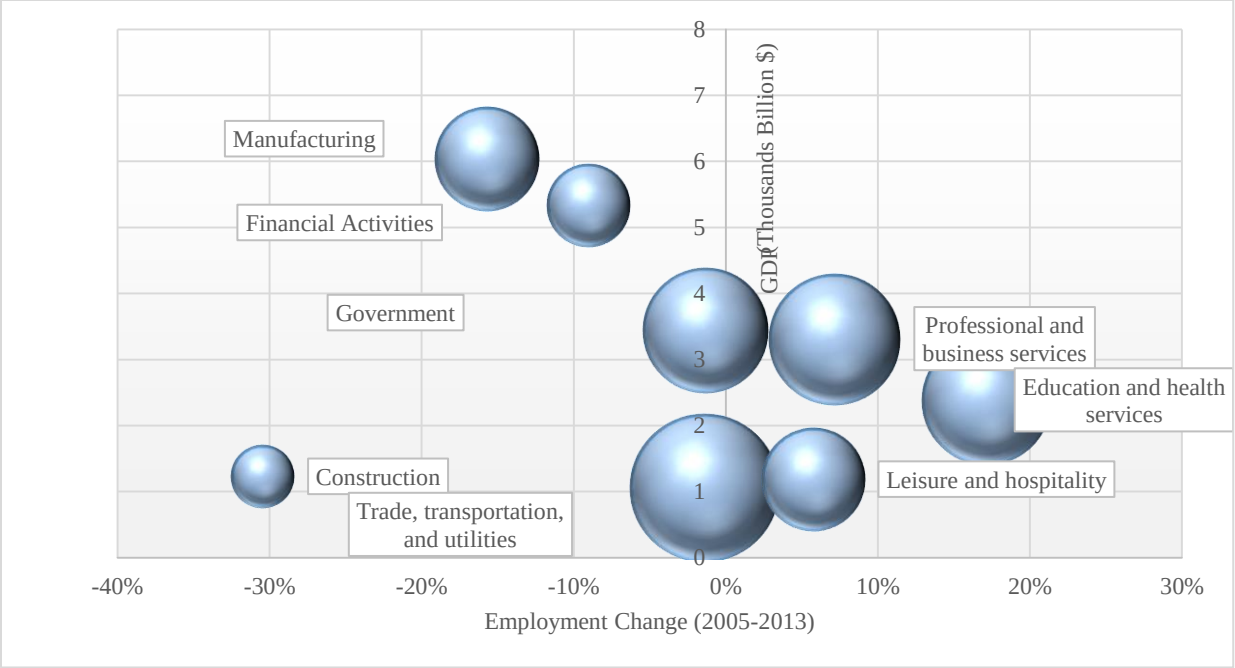

Figure 2.2.3 Employment Growth and GDP by Size of Employment Sector (2014)

Employment Trends in Trade, Transportation and Warehousing

As shown in Figure 2.2.4, in 2016, the BLS states there are over 1.2 million workers in Illinois employed in the broad category of Trade, Transportation and Utilities, which includes North American Industry Classification System (NAICS 42-49): Retail and Wholesale Trade, Transportation and Warehousing. Between 2007 and 2017 this sector recovered back to its 2007 levels after hitting a low point in 2010.

Figure 2.2.4 Employment Trends in Trade, Transportation and Utilities[78][79]

About 20 percent, or 240,000 of this broad sector of employees work in NAICS sector 48-49 representing Transportation and Warehousing. Efforts for exercising further development in this

[78] 2017 Illinois State Freight Plan
[79] BLS, 2007-2017 trends

sector is vital with a view to increasing employment trend and make it consistent with population growth.

Freight Modal Profile in Transportation & Warehousing

Within the Transportation and Warehousing sector, different transportation modes exist. Occupational information was tabulated from the Longitudinal Employer–Household Dynamics (LEHD) data to better understand this breakout; NAICS 48-49[80] was again processed for analysis. The Transportation and Warehousing sector includes industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation. Establishments in these industries use transportation equipment or transportation related facilities as a productive asset. Table 2.2.1 shows the breakdown by mode of transportation and warehousing workers. Truck transportation dominates holding 48 percent in the total. Among the most common occupations in the truck transportation sector are driver/sales workers, laborers, and freight/material movers.

Table 2.2-1 Freight Mode Breakout of Transportation & Warehousing Workers, 2014 [81] [82]

Description	% of Total
Air Transportation	11%
Rail Transportation	5%
Water Transportation	2%
Truck Transportation	48%
Transit and Ground Passenger Transportation	16%
Scenic and Sightseeing Transportation	1%
Support Activities for Transportation	17%
Total	100%

Freight rail employees are highly skilled professionals who are among the best compensated workers in the nation striving to help safely transport raw materials, products, and finished goods that sustain the nation's economy and people. Railroads provide the opportunity to build lifelong careers in fields such as engineering and train dispatching, law enforcement, information technology development, and industrial development. Figure 2.2.5 presents the number of employees in different subsectors in the railroad sector in Illinois.[83]

[80] https://www.bls.gov/iag/tgs/iag48-49.htm (last accessed March 2017)
[81] https://lehd.ces.census.gov/data/ (last accessed March 2017)
[82] 2017 Illinois State Freight Plan
[83] https://www.bls.gov/oes/tables.htm

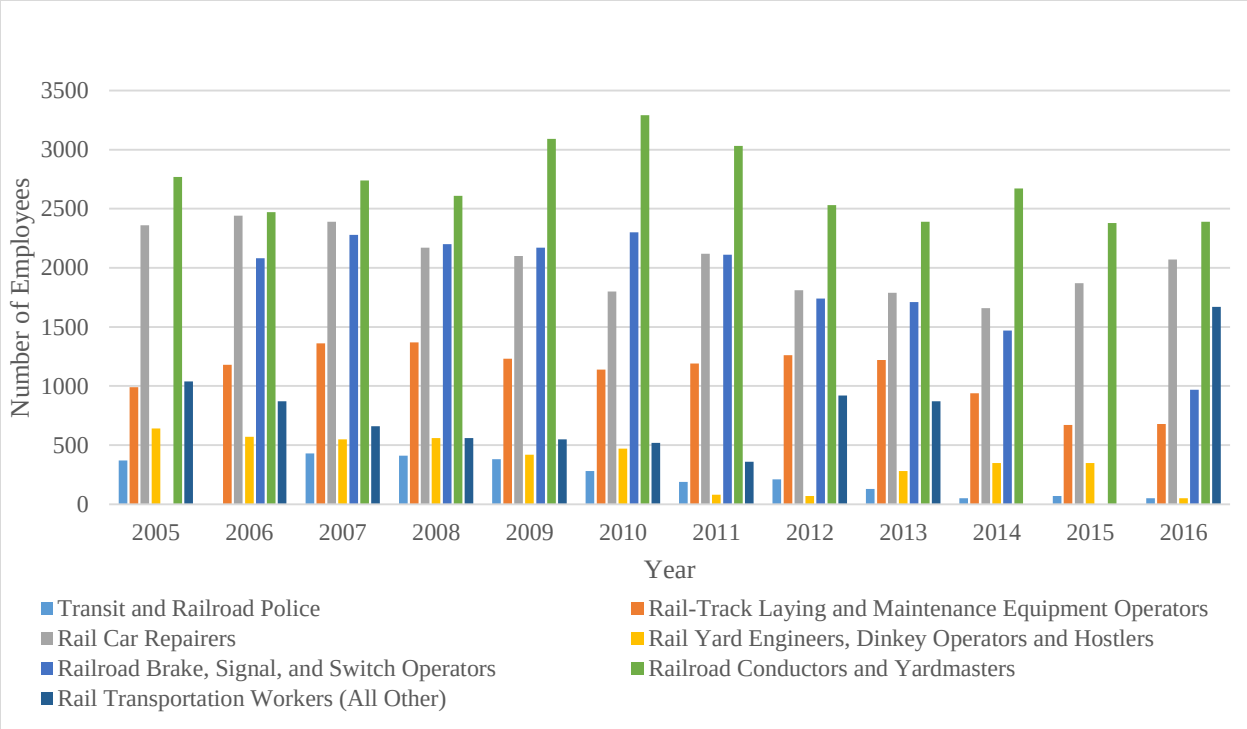

Figure 2.2.5 Number of Employees Trend in Railroad Sector (Illinois)

*Missing column in the above figure represents the data wasn't released

The wages paid to workers in the Transportation & Warehousing sector are of interest as well. Between 2007 and 2016, the average weekly wages show an increase from just under $20 per hour to $23.25 per hour, or 18 percent, according to the BLS (Figure 2.2.6). The hourly average wage yields an annual estimated wage of $48,360 for this employment sector.

Figure 2.2.6 Employment Trends in Transportation and Warehousing [84] [85]

[84] 2017 Illinois State Freight Plan
[85] BLS, 2007-2017 trends

Because wages for most occupations in transportation and warehousing start above minimum wage and increase to average or above average pay in Illinois, these jobs provide an economic boost to workers, their families and local economies. New businesses with job opportunities in the state have promoted economic progress. Clearly, Illinois' unique position in the national transportation and logistics system has contributed further to this growth in wages and a stable number of total workers.

The distribution of transportation and warehouse workers across the state is also of interest for understanding economic growth as well as preparing programs for specialized training and education. Figure 2.2.7 and Table 2.2.2 show that most transportation workers are employed in northeastern Illinois, the East St. Louis area, and in Winnebago, Peoria, and Rock Island counties.

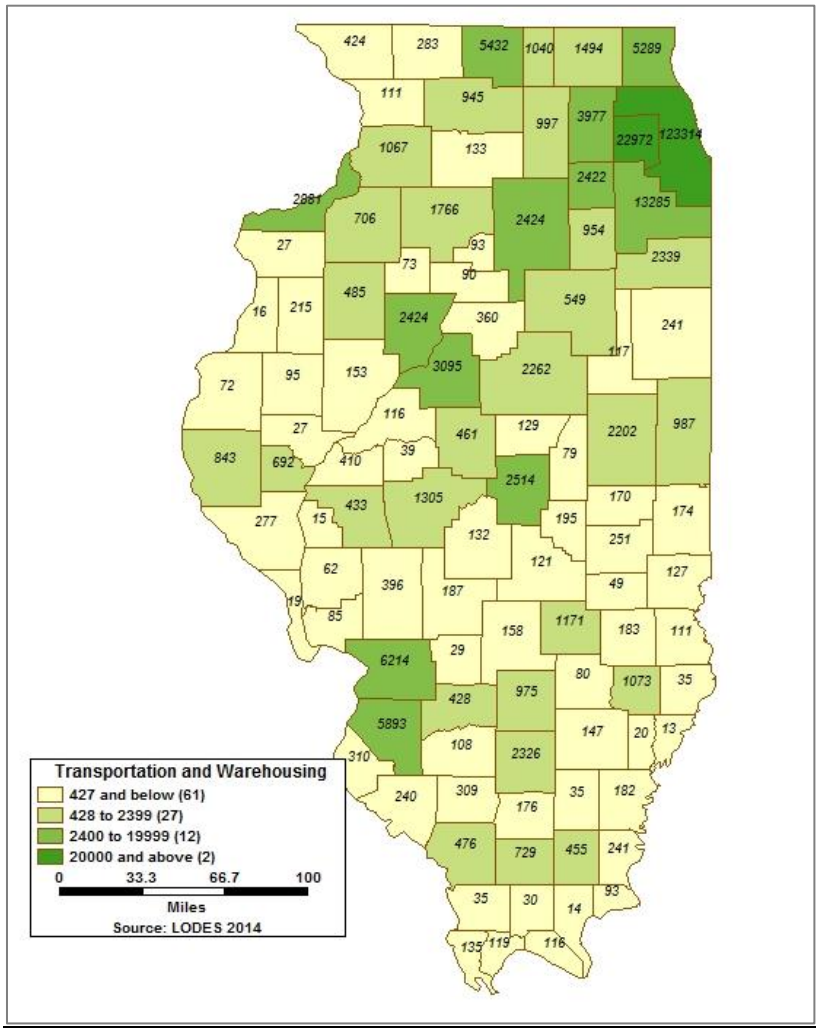

Figure 2.2.7 Geographic Distribution of Transportation and Warehousing Workers in Illinois, 2014[86]

[86] U.S. Census Bureau, LEHD (last accessed March 2017)

Table 2.2-2 Transportation and Warehouse Workers by County, 2014 [87] [88]

County	FIPS ID	Transportation and Warehouse Workers	County	FIPS ID	Transportation and Warehouse Workers
COOK	17031	123,314	IROQUOIS	17075	241
DUPAGE	17043	22,972	RANDOLPH	17157	240
WILL	17197	13,285	WARREN	17187	215
MADISON	17119	6,214	MOULTRIE	17139	195
ST. CLAIR	17163	5,893	MONTGOMERY	17135	187
WINNEBAGO	17201	5,432	JASPER	17079	183
LAKE	17097	5,289	WHITE	17193	182
KANE	17089	3,977	FRANKLIN	17055	176
TAZEWELL	17179	3,095	EDGAR	17045	174
ROCK ISLAND	17161	2,881	DOUGLAS	17041	170
MACON	17115	2,514	FAYETTE	17051	158
LA SALLE	17099	2,424	FULTON	17057	153
PEORIA	17143	2,424	WAYNE	17191	147
KENDALL	17093	2,422	ALEXANDER	17003	135
KANKAKEE	17091	2,339	LEE	17103	133
JEFFERSON	17081	2,326	CHRISTIAN	17021	132
MCLEAN	17113	2,262	DEWITT	17039	129
CHAMPAIGN	17019	2,202	CLARK	17023	127
BUREAU	17011	1,766	SHELBY	17173	121
MCHENRY	17111	1,494	PULASKI	17153	119
SANGAMON	17167	1,305	FORD	17053	117
EFFINGHAM	17049	1,171	MASON	17125	116
RICHLAND	17159	1,073	MASSAC	17127	116
WHITESIDE	17195	1,067	CARROLL	17015	111
BOONE	17007	1,040	CRAWFORD	17033	111
DEKALB	17037	997	WASHINGTON	17189	108
VERMILION	17183	987	MCDONOUGH	17109	95
MARION	17121	975	HARDIN	17069	93
GRUNDY	17063	954	PUTNAM	17155	93
OGLE	17141	945	MARSHALL	17123	90
ADAMS	17001	843	JERSEY	17083	85
WILLIAMSON	17199	729	CLAY	17025	80
HENRY	17073	706	PIATT	17147	79
BROWN	17009	692	STARK	17175	73
LIVINGSTON	17105	549	HANCOCK	17067	72
KNOX	17095	485	GREENE	17061	62
JACKSON	17077	476	CUMBERLAND	17035	49
LOGAN	17107	461	MENARD	17129	39
SALINE	17165	455	HAMILTON	17065	35
MORGAN	17137	433	LAWRENCE	17101	35
CLINTON	17027	428	UNION	17181	35
JO DAVIESS	17085	424	JOHNSON	17087	30
CASS	17017	410	BOND	17005	29
MACOUPIN	17117	396	MERCER	17131	27
WOODFORD	17203	360	SCHUYLER	17169	27
MONROE	17133	310	EDWARDS	17047	20
PERRY	17145	309	CALHOUN	17013	19
STEPHENSON	17177	283	HENDERSON	17071	16
PIKE	17149	277	SCOTT	17171	15
COLES	17029	251	POPE	17151	14
GALLATIN	17059	241	WABASH	17185	13

[87] 2017 Illinois State Freight Plan
[88] U.S. Census Bureau, LEHD, (last accessed March 2017)

Personal Income

In 2014, the per capita personal income in Illinois was $48,563,[89] about 4.5 percent higher than the national average ($46,463). In 2016 dollars (not adjusted for inflation), the per capita personal income since 1990 has grown by 148 percent, keeping pace with the national income growth of 153 percent. Since 2000, Illinois' per capita personal income has continued to increase above the national average, which is evident from the following figure. The income growth in the past decade in Illinois can be attributed to its strong economy, as shown by continued GDP gains and low unemployment rate. Figure 2.2.8 shows the historical per capita personal income for Illinois and the national average from 1990 to 2016. An increase in per capital personal income is likely to lead to an increase in consumption of goods, which are often transported by rail, truck and other means.

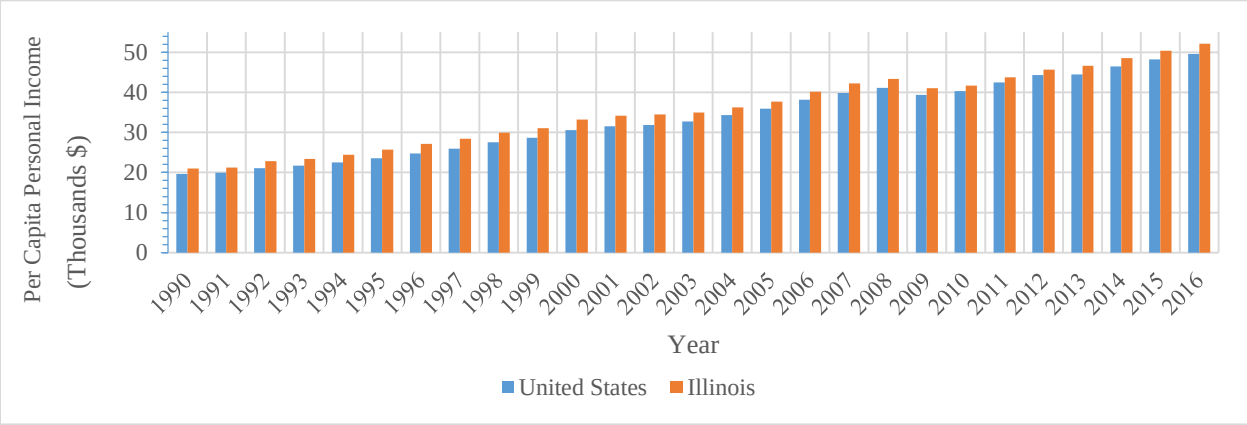

Figure 2.2.8 Historical Per Capita Personal Income[90]

2.2.2 Freight demand and growth by type of service

Freight Rail Commodity Profile

This section of the report summarizes rail freight flows by key commodities, directional flows and geographic markets. The 2014 U.S. Surface Transportation Board (STB) Carload Waybill Sample is the primary data source for the rail traffic analysis. The Waybill Sample is a stratified sampling of carload waybills for all U.S. rail traffic obtained from rail carriers that terminate at least 4,500 revenue carloads annually.

Coal/Energy

Most of the coal shipped to Illinois is used for power generation. Some of the shipment of coal by rail remains within Illinois, while other coal is transloaded to barge or vessel at one of the Illinois port facilities for delivery elsewhere. As an example, the KCBX Terminal in Chicago and the Kinder Morgan Cahokia Terminal in Sauget, Illinois, are major transshipment points where coal is shifted from rail to barge transportation. Transportation frequency comprises the greater part of the delivered price of coal, and fuel is a major determinant of the price of electricity. Therefore, rail

[89]https://www.bea.gov/itable/iTable.cfm?ReqID=70&step=1#reqid=70&step=30&isuri=1&7022=21&7023=0&7024=non-industry&7033=-1&7025=0&7026=17000&7027=- (last accessed July, 2017)
[90] https://www.bea.gov/ (last accessed July, 2017)

transportation can impact electricity costs within the state. The majority of coal that terminates by rail in Illinois is sub-bituminous coal from the Powder River Basin (PRB) mine area in Wyoming. Whether it is shipped entirely by rail or whether it is shipped by rail/maritime combination, all PRB coal is shipped out of the basin by rail.

According to data from the U.S. Energy Information Administration, Illinois is the fourth-largest coal producing state within the U.S., with production of 56.1 million tons in 2015.[91] The most heavily used mode to transport Illinois coal is barge, but many of the mines within the state are entirely reliant upon rail.

Agriculture/Food

Agriculture is also highly dependent upon rail. As with coal, transportation is a large portion of the delivered cost of grain and soybeans. Rail connections are a key component of the success of Illinois agriculture sold both domestically and abroad.

The state's abundant agriculture production has fed the agriculture processing industry. Most processors are located in the Chicago metropolitan area, which contains one of the largest concentrations of food-related businesses in the world. Food processors also rely heavily on rail.

Chemical and Other

Rail is key to the success of the Illinois chemical industry, whose companies often must ship heavy, bulky materials great distances. A variety of other industries within Illinois also rely on rail, including steel, plastics, and rubber, as well as construction materials such as sands, gravel, and lumber.

Directional Rail Flows

In 2014, Illinois railroads carried a total of 640 million tons and nearly 15 million carloads of freight (see Table 2.2.3). The most prevalent directional flow was non-Illinois U.S. to Illinois, representing nearly 36 percent by weight, followed by Illinois to non-Illinois U.S., representing 28.5 percent by weight. As would be expected, on a unit basis, non-Illinois U.S. to Illinois and Illinois to non-Illinois U.S. are relatively balanced with 5.7 million carloads terminating in Illinois and 5.5 million originating in the state. Through-freight, often referred to as "overhead freight,"[92] represents approximately 28 percent of directional flows. Most overhead traffic represents imports and exports that flow between Pacific Coast ports and the Ohio Valley or markets farther east. Of the remaining tonnage, 3.8 percent was intrastate traffic. The directional distribution of carload units follows a similar pattern with interstate flows weighing somewhat more heavily to inbound.

[91] U.S. Department of Energy, Energy Information Administration, *2015 Annual Coal Report*

[92] Overhead freight is standard industry terminology for freight that passes through the study area but originates and terminates outside of it.

Table 2.2-3 Illinois Rail Traffic Directional Flows

Traffic Type	Tons	Percent	Carload Units	Percent
Illinois to Non-Illinois U.S.	181,768,824	28.44	5,481,481	36.79
Non-Illinois U.S. to Illinois	227,693,292	35.62	5,657,810	37.97
Non-Illinois U.S. to Non-Illinois U.S.	159,918,949	25.02	2,422,741	16.26
Illinois to Illinois	24,368,738	3.81	279,765	1.88
Canada to Illinois	17,864,802	2.80	456,775	3.07
Canada to Non-Illinois U.S.	20,233,578	3.17	342,011	2.30
Illinois to Canada	5,529,276	0.87	219,080	1.47
Mexico to Illinois	349,004	0.05	20,848	0.14
Mexico to Non-Illinois U.S.	233,120	0.04	7,116	0.05
Illinois to Mexico	1,191,904	0.19	12,874	0.09
Total	639,151,487	100	14,900,501	100

Illinois to Non-Illinois U.S. Rail Traffic

In 2014, a total of 181.8 million tons of freight originating from Illinois was transported by rail to other states in the U.S. The chart below shows the top five originating commodity groups at the two-digit Standard Transportation Commodity Code (STCC) level. These five commodity groups weighed 136 million tons, or 74.8 percent of the total. As shown in this chart, chemicals are the top commodity by weight, with over 36.8 million tons exported from the state by rail in 2014.

All freight moved apart from the top five categories is classified as ”Remain,” which includes all other categories provided by the Surface Transportation Board (STB). “Waste, Nonferrous Scrap” represents the second-largest commodity group by weight with 35.2 million tons exiting Illinois by rail in 2014.

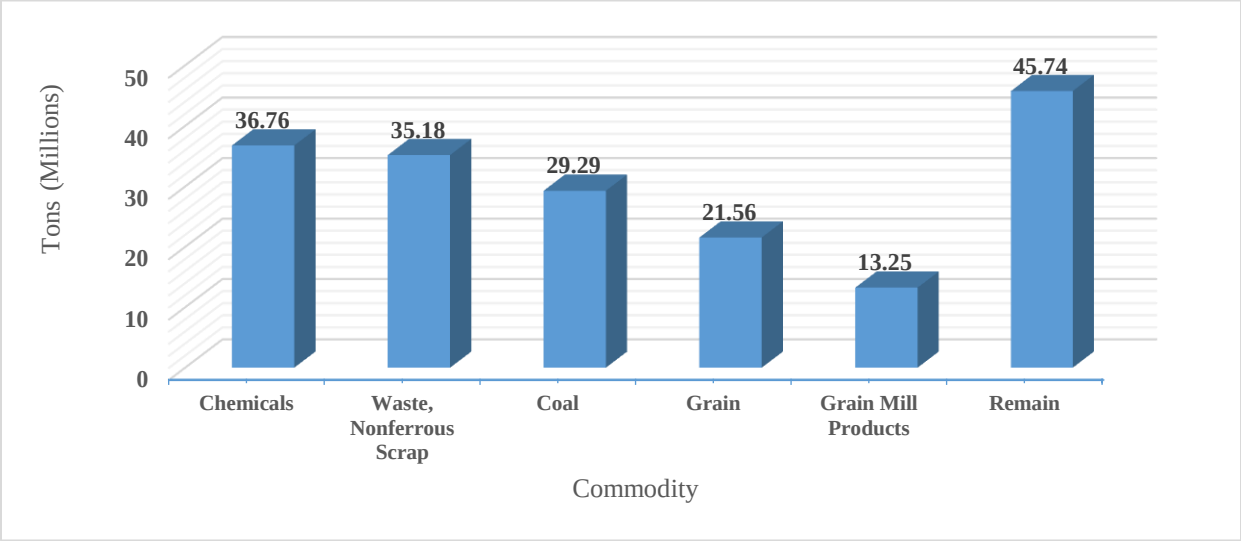

Figure 2.2.9 Top Five Commodities by Weight from Illinois to Non-Illinois (in U.S.) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

The alternative to shipping by rail carload is to use intermodal units (containers in wellcars or trailers on flatcars). A typical international intermodal container is 20, 40 or 45 feet long; 8 feet wide; and 8

feet 6 inches tall. These steel boxes are used internationally to transport freight by sea, rail and highway. A typical domestic intermodal container is 48 or 53 feet long, 8 feet wide, and 8 feet 6 inches tall. The typical maximum cargo weight that can be carried in a container is 45,000 pounds, or 22.5 tons. Containers are loaded onto a chassis and pulled by a truck when they are transported between vessels, trains and loading docks.

The combined weight of the containers, chassis and freight must be less than 56,000 pounds to be legally transported on most U.S. highways. If the combined weight exceeds 56,000 pounds, a special heavy-weight highway permit must be obtained prior to transport, which increases the cost of transportation.

The chart below shows the number of freight carloads/intermodal units that originated in Illinois and terminated to non-Illinois U.S. By unit count, Waste, Nonferrous Scrap had by far the largest number of units moved in Illinois in 2014. Chemicals and Motor Vehicles & Equipment were the second- and third-largest commodity groups by carload count, accounting for nearly 650,830 and 417,720 units exported respectively from the state.

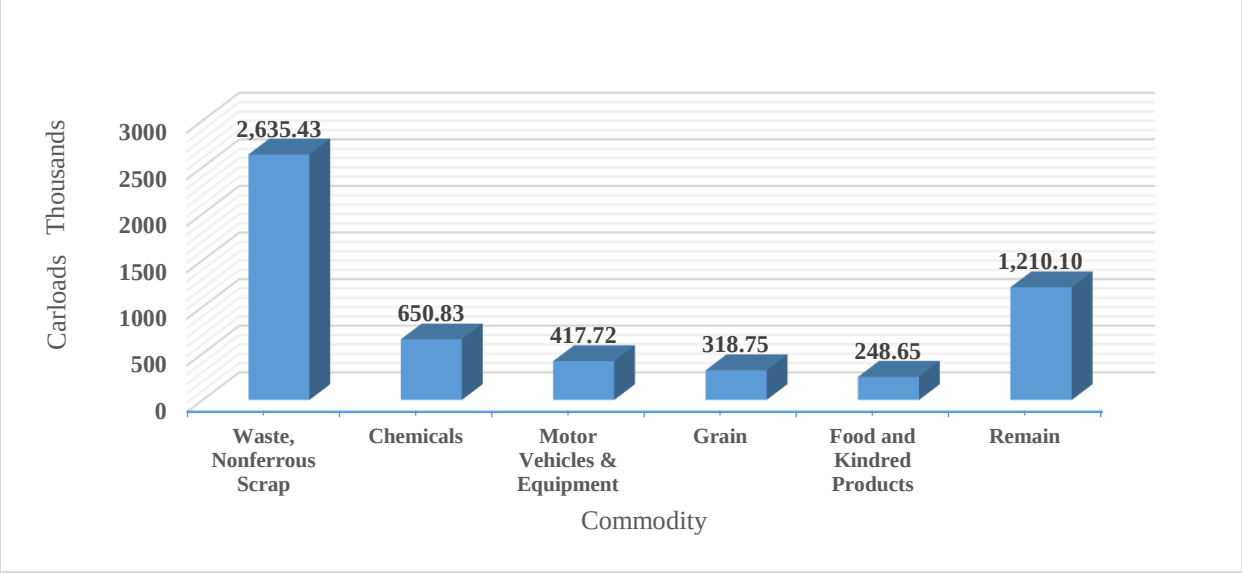

Figure 2.2.10 Top Five Commodities by Carloads from Illinois to Non-Illinois (in U.S.) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Non-Illinois U.S. to Illinois Rail Traffic

A total of 227.7 million tons of freight was transported by rail into Illinois in 2014 from other states in the U.S. The chart below presents the top five inbound commodities that terminated in Illinois. The top five commodity groups combined totaled 185.8 million tons, or 81.6 percent of non-Illinois U.S. to Illinois freight. Coal was the top commodity, which accounted for 43.3 percent of the 2014 non-Illinois U.S. to Illinois tonnage. Waste, Nonferrous Scrap represented the second largest inbound community group by weight, and accounted for 14.7 percent of total inbound rail flows.

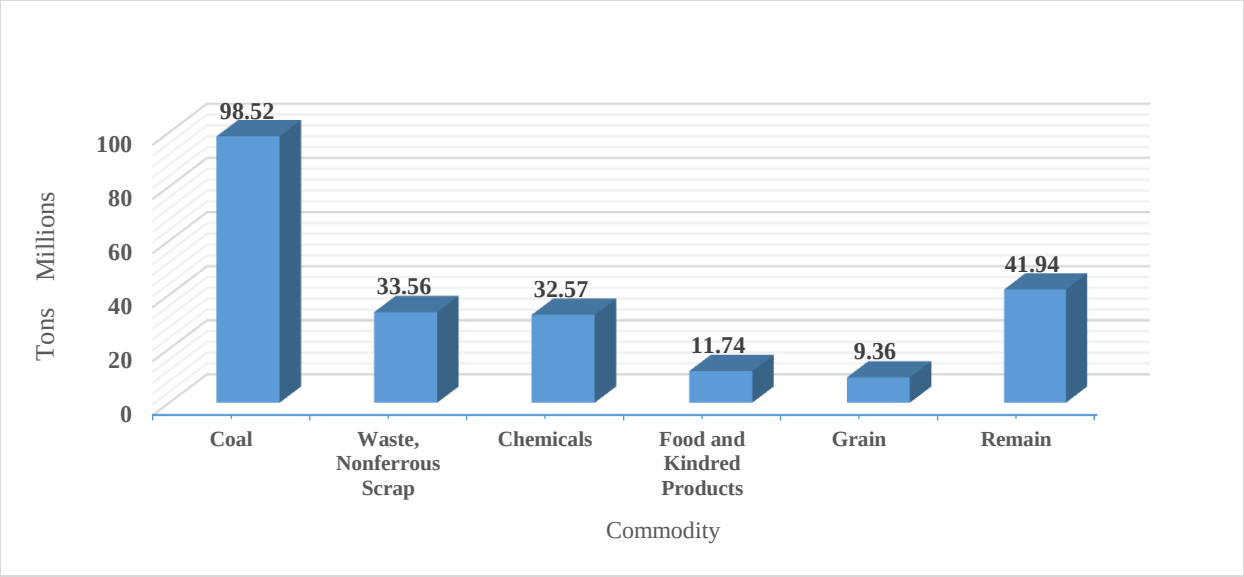

Figure 2.2.11 Top Five Commodities by Weight from non-Illinois (in U.S.) to Illinois (Prepared by UTC, based on 2014 STB Waybill Sample Data)

By unit measure, interstate *Non-Illinois U.S. to Illinois* traffic totaled 5.7 million carloads or intermodal containers. Waste, Nonferrous Scrap was the largest commodity category with 2.8 million units, or 48.4 percent of the total. As shown in the chart below, by unit count, Coal was the second largest commodity, with nearly 0.8 million carloads or 14.5 percent of the total.

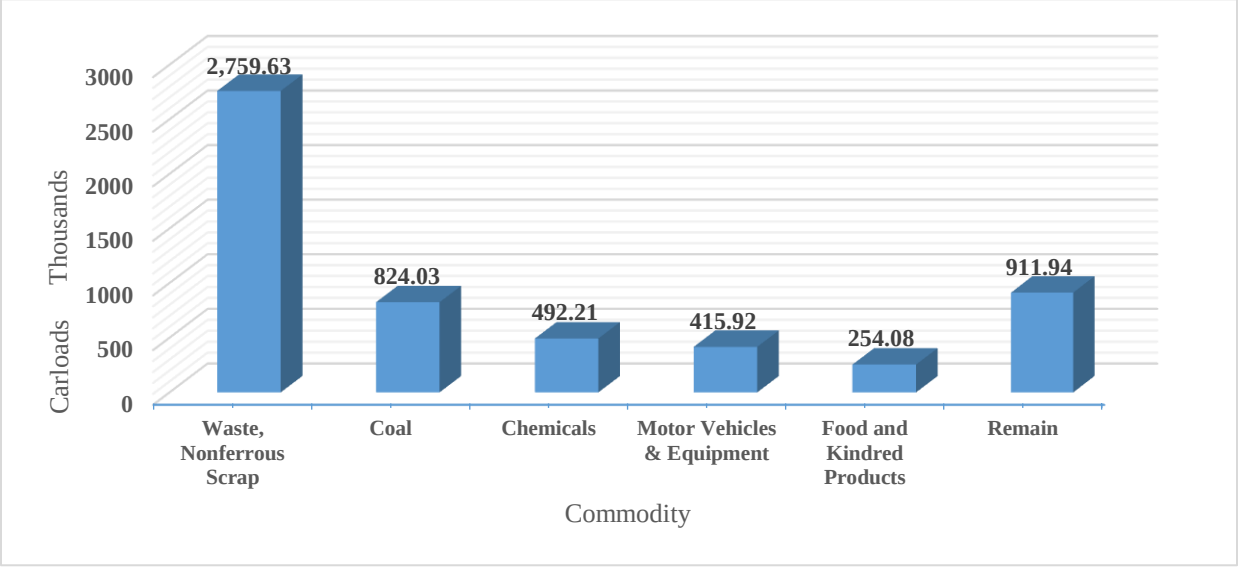

Figure 2.2.12 Top Five Commodities by Carloads from Non-Illinois (in U.S.) to Illinois (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Non-Illinois U.S. to Non-Illinois U.S. Rail Traffic

A total of 159.9 million tons of freight was transported non-Illinois U.S. to non-Illinois U.S. through Illinois in 2014. The chart below presents the top five inbound commodities that passed through

Illinois while both originating and terminating in non-Illinois U.S. The top five commodity groups combined totaled 121.9 million tons, or 76.2 percent of total non-Illinois U.S. to non-Illinois U.S. freight. Coal was the top commodity, which accounted for 31.8 percent of the 2014 total non-Illinois U.S. to non-Illinois U.S. tonnage. Chemicals represented the second-largest inbound community group by weight, and accounted for 25.8 percent of total inbound rail flows.

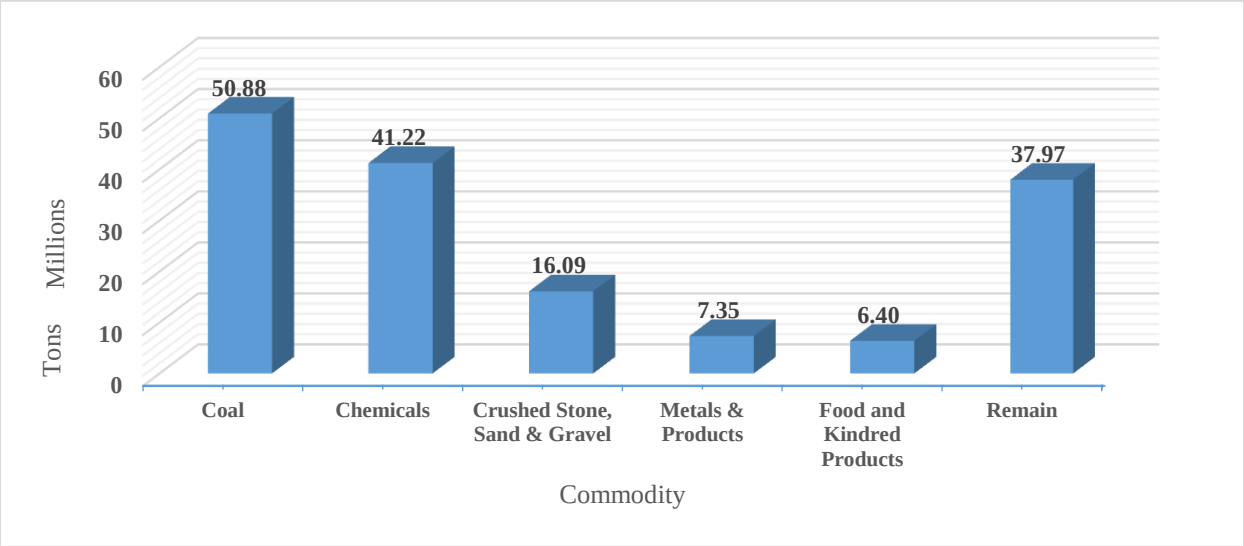

Figure 2.2.13 Top Five Commodities by Weight from Non-Illinois to Non-Illinois (in U.S.) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

By unit measure, interstate through traffic totaled 2.4 million carloads or intermodal containers. Chemicals was the largest commodity category with 0.5 million units, or 20.6 percent of the total carloads. As shown in the chart below, by unit count, Coal was the second largest commodity, with nearly 0.4 million carloads or 18.2 percent of the total.

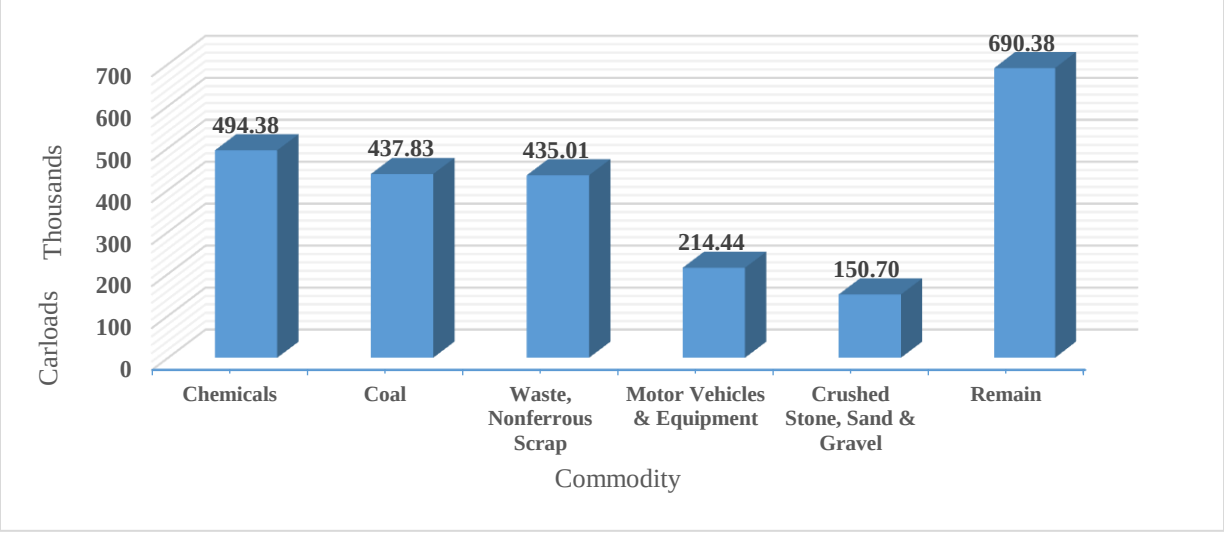

Figure 2.2.14 Top Five Commodities by Carloads from Non-Illinois to Non-Illinois (in U.S.) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Illinois Intrastate Rail Traffic

A total of 24.4 million tons of freight was transported to and from locations in Illinois in 2014. The chart below presents the top five intrastate commodities. The top five commodity groups combined totaled 22.5 million tons, or 92.2 percent of total inbound freight. Coal was the top commodity, which accounted for 52.5 percent of the 2014 total inbound tonnage. Grain represented the second-largest inbound community group by weight, and accounted for 18.6 percent of total inbound rail flows.

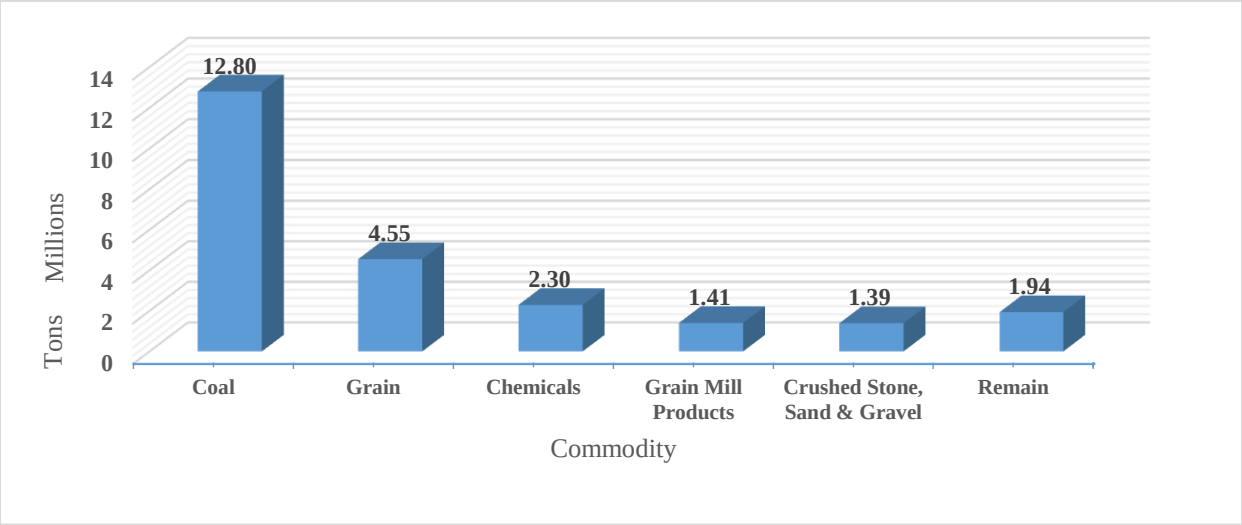

Figure 2.2.15 Top Five Commodities by Weight from Illinois to Illinois (Prepared by UTC, based on 2014 STB Waybill Sample Data)

By unit measure, intrastate traffic totaled 0.28 million carloads or intermodal containers. Coal was the largest commodity category with 0.11 million units, or 39.3 percent of the total. As shown in the chart below, by unit count, Grain was the second-largest commodity, with nearly 0.05 million carloads or 17.9 percent of the total.

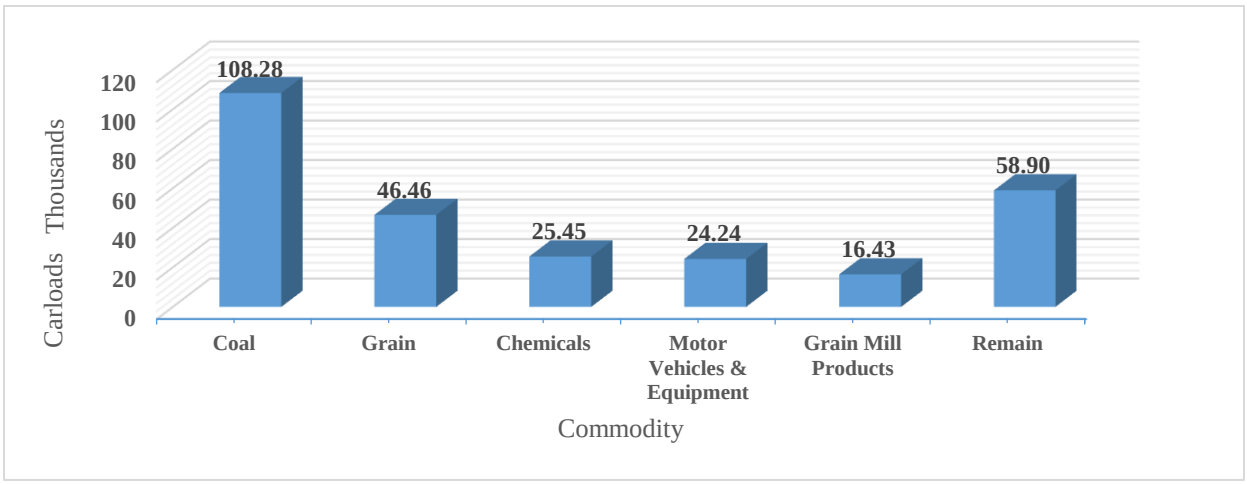

Figure 2.2.16 Top Five Commodities by Carloads from Illinois to Illinois (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Canada to Illinois Rail Traffic

A total of 17.9 million tons of freight was transported from Canada to Illinois in 2014. The chart below presents the top five Canada-to-Illinois commodities. The top five commodity groups combined totaled 15.4 million tons, or 86.1 percent of total Canada to Illinois freight. Chemicals were the top commodity, which accounted for 49.9 percent of the 2014 total inbound tonnage from Canada. Waste, Nonferrous Scrap represented the second-largest inbound community group by weight, and accounted for 18 percent of total inbound rail flows from Canada.

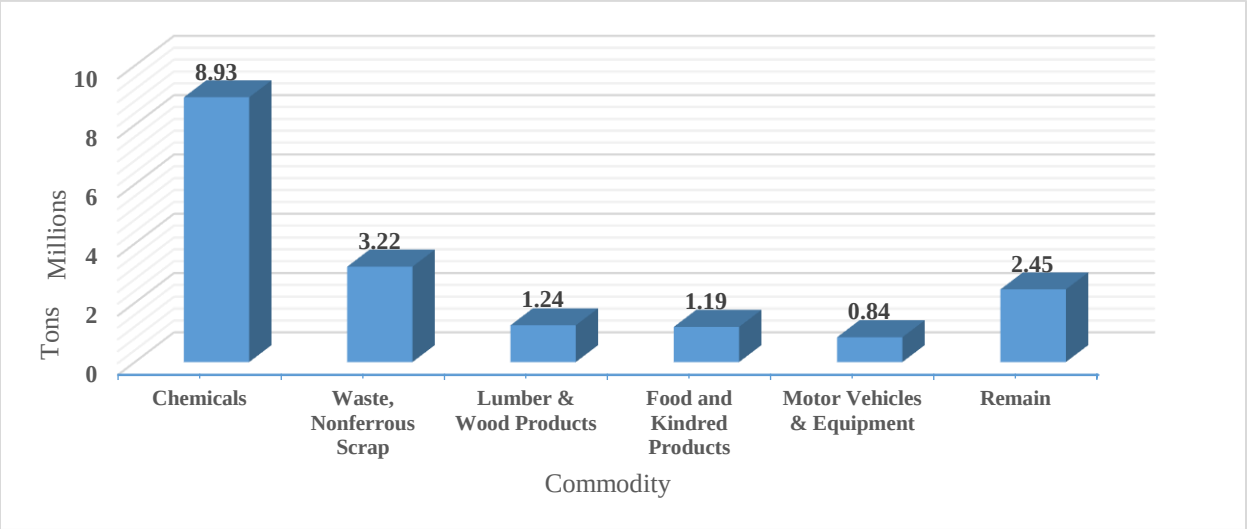

Figure 2.2.17 Top Five Commodities by Weight from Canada to Illinois (Prepared by UTC, based on 2014 STB Waybill Sample Data)

By unit measure, Canada-to-Illinois traffic totaled 0.5 million carloads or intermodal containers. Waste, Nonferrous Scrap was the largest commodity category with 0.23 million units, or 46 percent of the total. As shown in the chart below, by unit count, Chemicals were the second-largest commodity, with nearly 0.10 million carloads or 20 percent of the total.

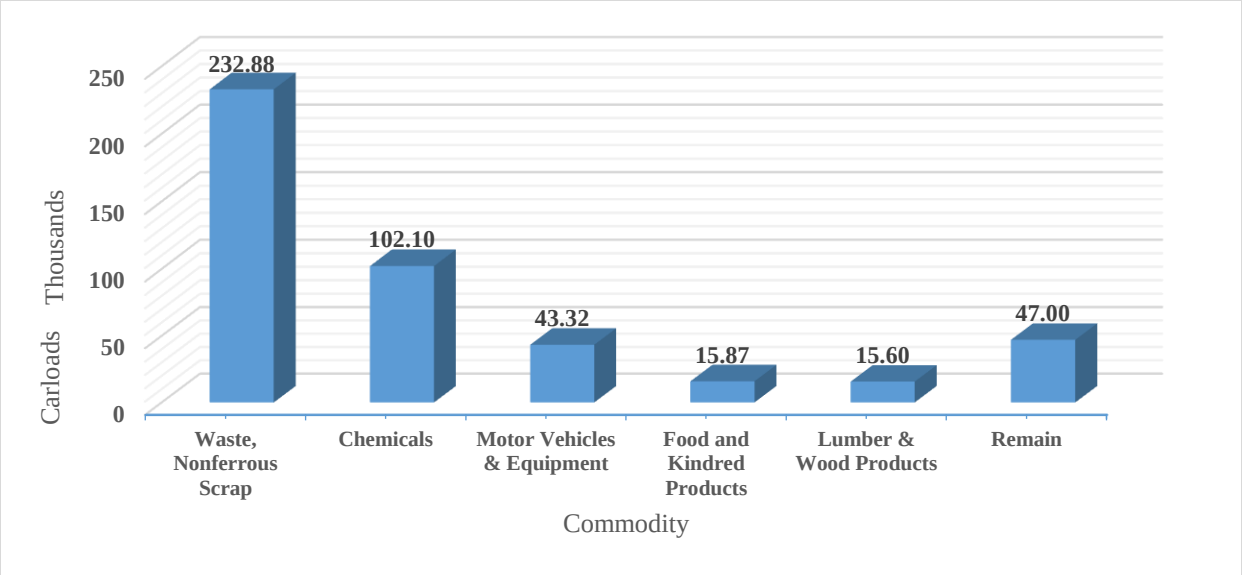

Figure 2.2.18 Top Five Commodities by Carloads from Canada to Illinois (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Canada to Non-Illinois U.S. Rail Traffic

A total of 20.2 million tons of freight was transported from Canada through Illinois to other states in 2014. The chart below presents the top five Canada to other state commodities. The top five commodity groups combined totaled 17.2 million tons, or 85.1 percent of total inbound freight. Chemicals were the top commodity, which accounted for 57.7 percent of the 2014 total inbound tonnage. Lumber & Wood Products represented the second-largest inbound community group by weight, and accounted for 10.7 percent of total inbound rail flows to Non-Illinois in U.S. from Canada.

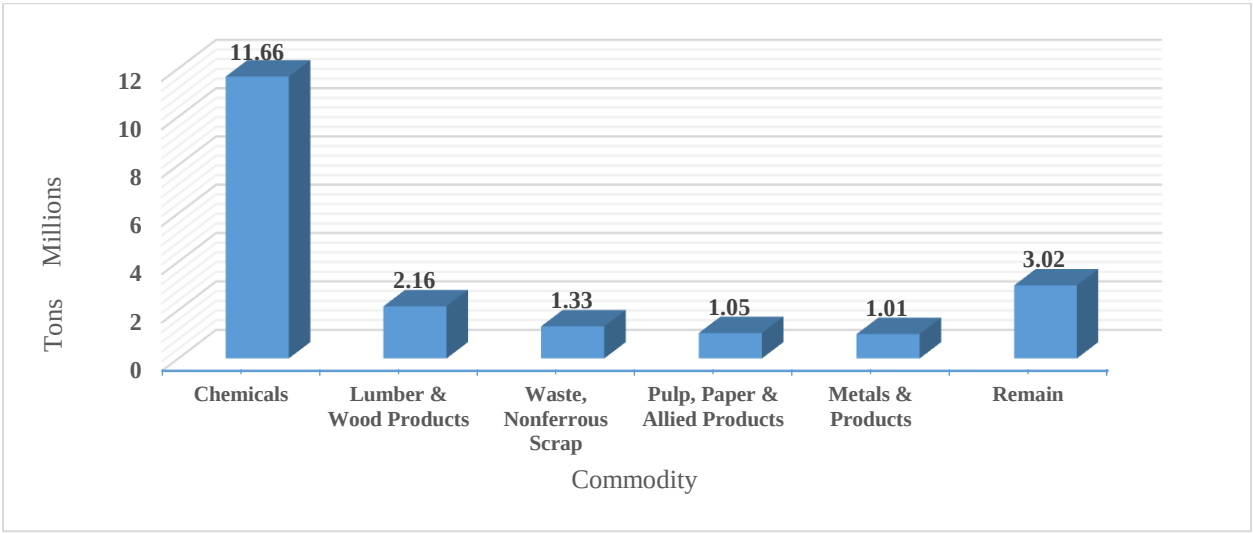

Figure 2.2.19 Top Five Commodities by Weight from Canada to Non-Illinois (in U.S.) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

By unit measure, traffic from Canada through Illinois totaled 0.34 million carloads or intermodal containers. Chemicals was the largest commodity category with 0.13 million units, or 38.2 percent of the total. As shown in the chart below, by unit count, Waste, Nonferrous Scrap was the second-largest commodity, with nearly 0.12 million carloads or 35.3 percent of the total inbound rail flows to non-Illinois in U.S. from Canada.

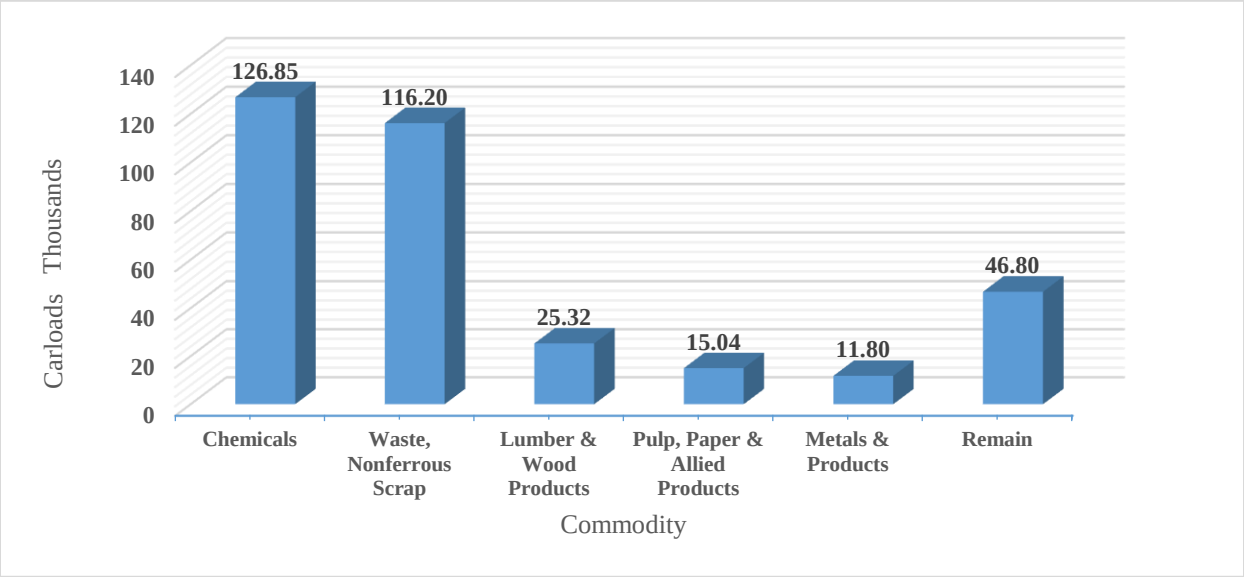

Figure 2.2.20 Top Five Commodities by Carloads from Canada to Non-Illinois (in U.S.) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Illinois to Canada Rail Traffic

A total of 5.5 million tons of freight was transported from Illinois to Canada in 2014. The chart below presents the top five Illinois-to-Canada commodities. The top five commodity groups combined totaled 4.29 million tons, or 78 percent of total inbound freight. Chemicals were the top commodity - accounting for 34.7 percent of the 2014 total inbound tonnage to Illinois from Canada. Waste, Nonferrous Scrap represented the second-largest inbound community group by weight, and accounted for 26.4 percent of total inbound rail flows from Canada.

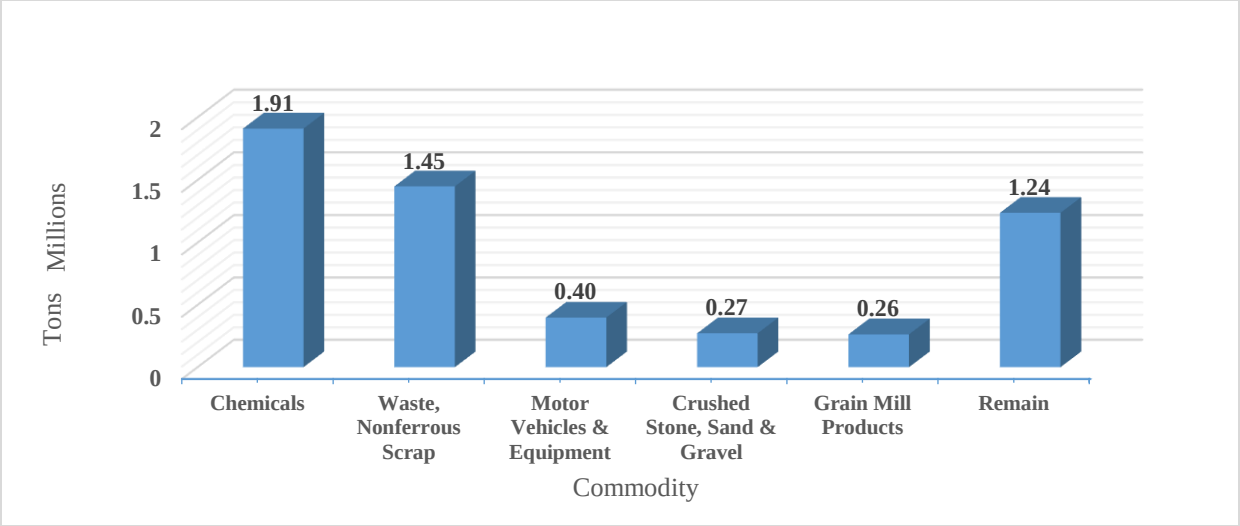

Figure 2.2.21 Top Five Commodities by Weight from Illinois to Canada (Prepared by UTC, based on 2014 STB Waybill Sample Data)

By unit measure, Illinois-to-Canada traffic totaled 0.22 million carloads or intermodal containers. Waste, Nonferrous Scrap was the largest commodity category with 0.10 million units, or 45.5 percent of the total. As shown in the chart below, by unit count, Chemicals were the second-largest commodity, with nearly 0.04 million carloads or 18.2 percent of the total.

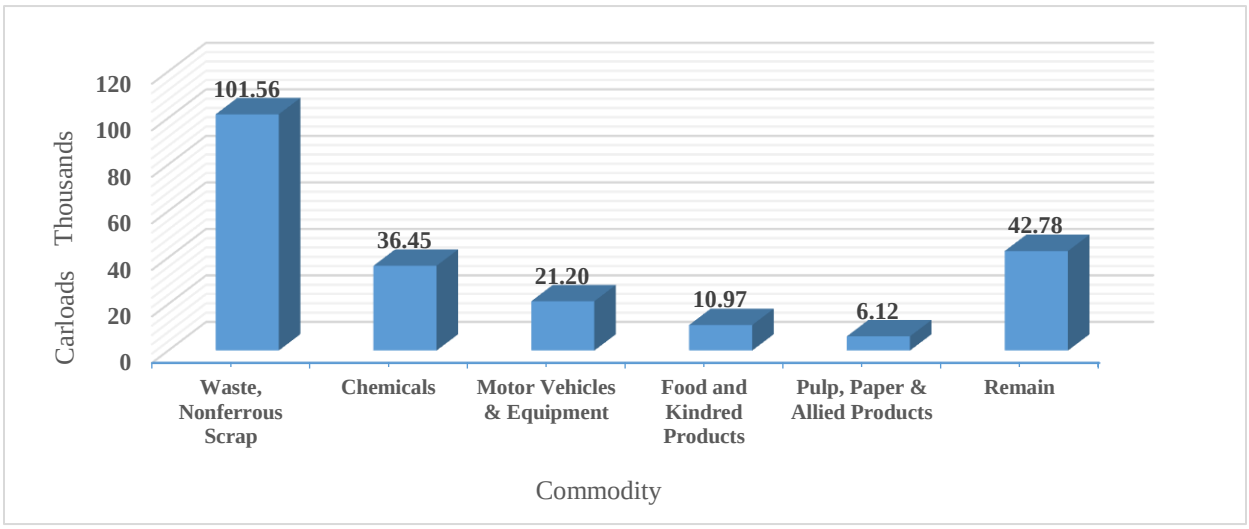

Figure 2.2.22 Top Five Commodities by Carloads from Illinois to Canada (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Mexico to Illinois Rail Traffic

A total of 0.35 million tons of freight was transported from Mexico to Illinois in 2014. The chart below presents the top five Mexico-to-Illinois commodities. The top five commodity groups combined totaled 0.30 million tons, or 85.7 percent of total inbound freight. Motor Vehicles & Equipment was the top commodity. Motor Vehicles & Equipment by itself accounted for 42.9 percent of the 2014

total inbound tonnage. Chemicals represented the second-largest inbound commodity group by weight, and accounted for 20.6 percent of total inbound rail flows from Mexico.

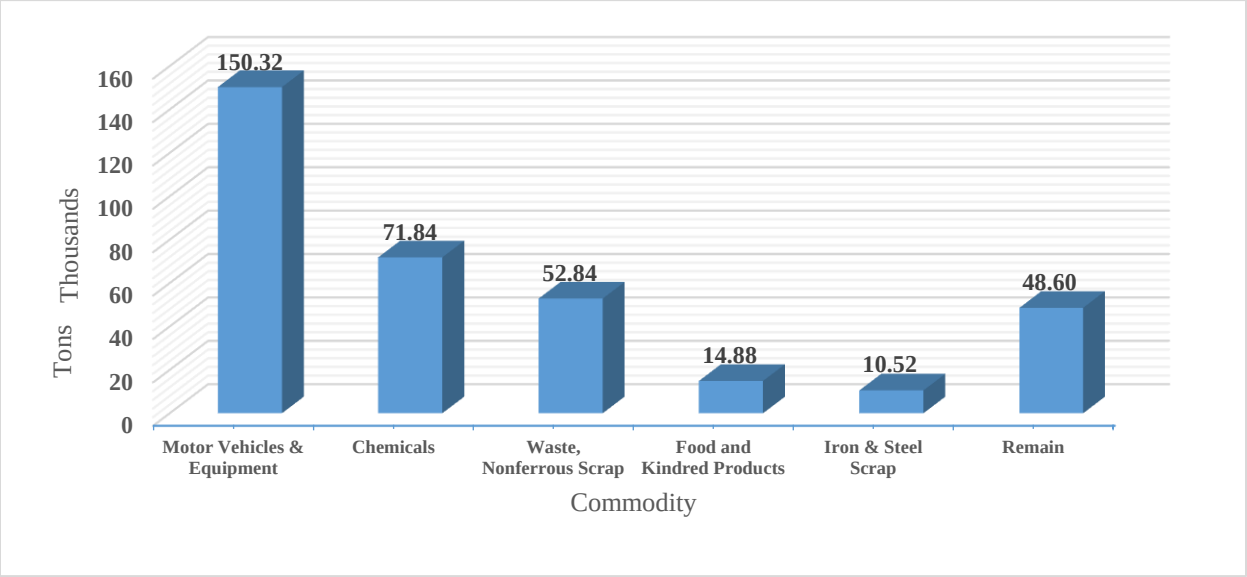

Figure 2.2.23 Top Five Commodities by Weight from Mexico to Illinois (Prepared by UTC, based on 2014 STB Waybill Sample Data)

By unit measure, Mexico-to-Illinois traffic totaled 20.85 thousand carloads or intermodal containers. Motor Vehicles & Equipment was the largest commodity category with 8.64 thousand units, or 41.4 percent of the total. As shown in the chart below, by unit count, Waste, Nonferrous Scrap was the second-largest commodity, with nearly 7.24 thousand carloads or 34.7 percent of the total.

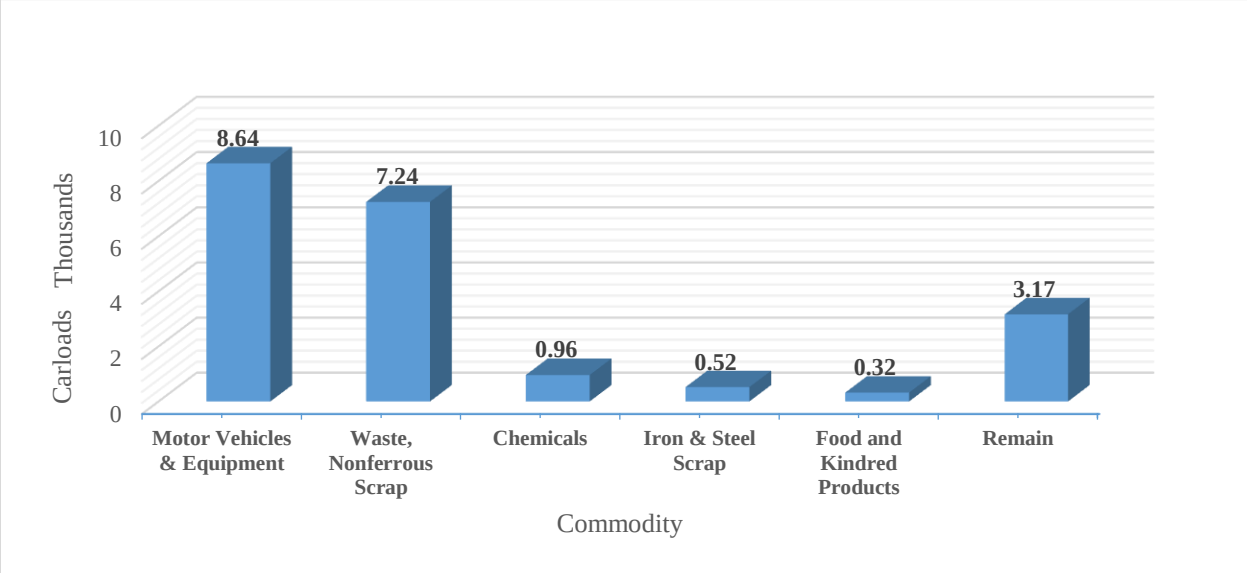

Figure 2.2.24 Top Five Commodities by Carloads from Mexico to Illinois (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Mexico to Non-Illinois U.S. Rail Traffic

A total of 0.23 million tons of freight was transported from Mexico through Illinois to other states in 2014. The chart below presents the top five Mexico to other state commodities. The top five commodity groups combined totaled 0.14 million tons, or 60.4 percent of total inbound freight. Motor Vehicles & Equipment was the top commodity, which accounted for 35.7 percent of the 2014 total inbound tonnage. Chemicals represented the second-largest inbound community group by weight, and accounted for 8.3 percent of total inbound rail flows from Mexico to non-Illinois in the U.S.

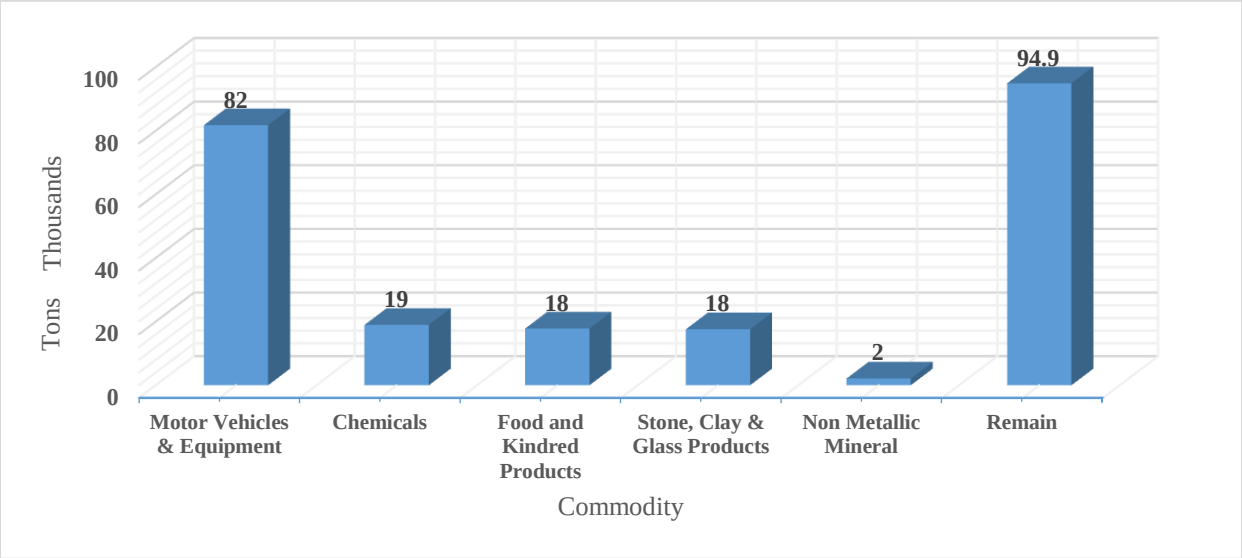

Figure 2.2.25 Top Five Commodities by Weight from Mexico to Non-Illinois (in U.S.) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

By unit measure, traffic from Mexico through Illinois totaled 7.1 thousand carloads or intermodal containers. Motor Vehicles & Equipment was the largest commodity category with 2.4 thousand units, or 33.8 percent of the total. As shown in the chart below, by unit count, Food & Kindred Products was the second-largest commodity, with nearly 0.28 thousand carloads or 3.9 percent of the total freight flow.

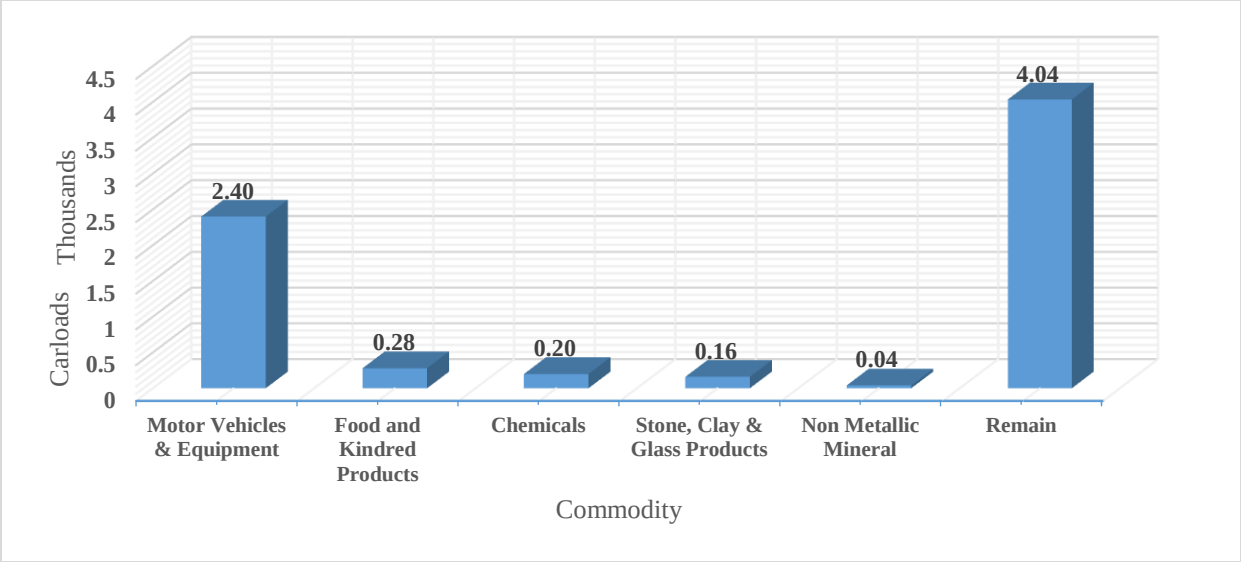

Figure 2.2.26 Top Five Commodities by Carloads from Mexico to Non-Illinois (in U.S.) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Illinois to Mexico Rail Traffic

A total of 1.2 million tons of freight was transported from Illinois to Mexico in 2014. The chart below presents the top five Illinois-to-Mexico commodities. The top five commodity groups combined totaled 1.17 million tons, or 97.5 percent of total inbound freight. Grain was the top commodity, which accounted for 86.2 percent of the 2014 total inbound tonnage. Grain Mill Products represented the second-largest inbound community group by weight, and accounted for 5.3 percent of total outbound rail flows from Illinois to Mexico.

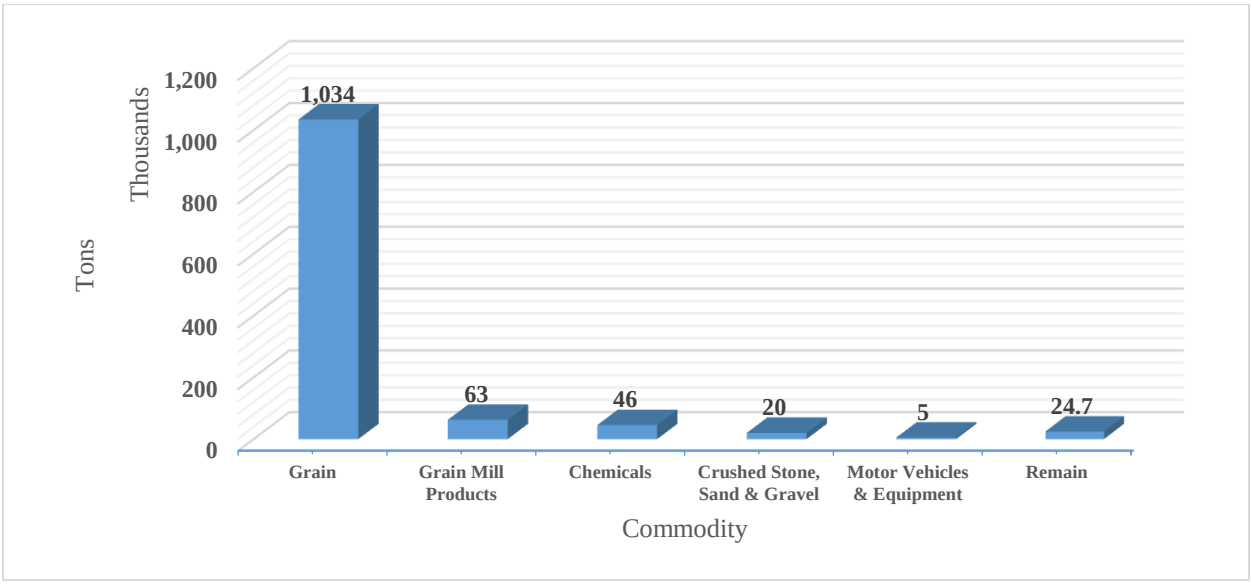

Figure 2.2.27 Top Five Commodities by Weight from Illinois to Mexico (Prepared by UTC, based on 2014 STB Waybill Sample Data)

By unit measure, Illinois-to-Mexico traffic totaled 12.9 thousand carloads or intermodal containers. Grain was the largest commodity category with 9.71 thousand units, or 75.3 percent of the total. As shown in the chart below, by unit count, Chemicals were the second-largest commodity, with nearly 0.80 thousand carloads or 6.2 percent of the total freight flow.

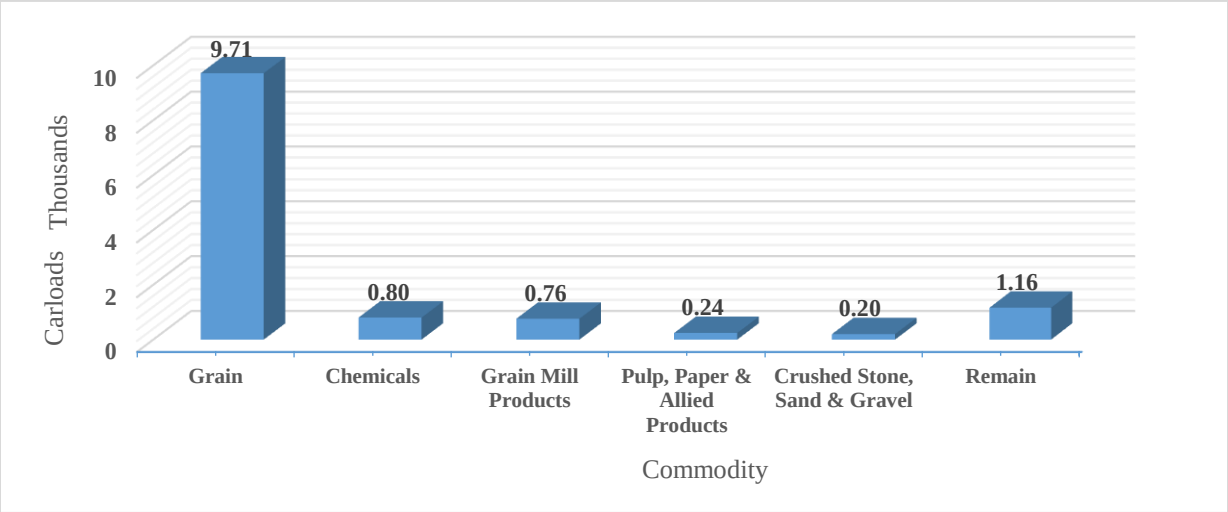

Figure 2.2.28 Top Five Commodities by Carloads from Illinois to Mexico (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Forecasts of Illinois Future Rail Flows

FAF-Based Forecast Methodology

The STB Waybill Sample used for analyzing railroad commodity movements in the prior sections does not provide any forecasts of future rail movements in Illinois. To provide future forecasts about Illinois' rail movement tonnages, the Freight Analysis Framework Version 4 (FAF-4) from the Federal Highway Administration (FHWA) and the forecast multipliers[93] contained in the database were used. In order to apply the FAF-4 multipliers to the Waybill Sample, the STCC used in the Waybill Sample had to be converted to the Standard Classification of Transported Goods (SCTG) used by FAF-4. The converted commodity data was broken out by two-digit SCTG code and by origin-destination pairs (to/from states).

While converting these commodity types in the Waybill Sample to the commodities in the FAF-4, some rail movements are omitted because FAF-4 does not account for all the movements that the Waybill Sample does. For instance, a rail shipment going from Minneapolis, Minnesota, to Pittsburgh, Pennsylvania, through Chicago would be interlined between two railroads (i.e., moved by truck from a Western Class I to an Eastern Class I). While the STB Waybill Sample may show such a shipment as two separate rail movements, FAF-4 attempts to capture such instances as one continuous flow between the primary origin and ultimate destination. There are also differences between the two sources due to the sampling methods: FAF-4 is based on the smaller public Waybill Sample, while the STB data is based on the larger, more confidential private sample.

To account for missing rail movements in producing the Illinois forecasts, the tonnage multipliers for each year were applied for origin-destination pairs accounted for in both the FAF-4 and STB Waybill. The resulting tonnages were then summed by STCC code. Once the tonnages were summed for each

[93] https://ops.fhwa.dot.gov/publications/fhwahop16043/fhwahop16043.pdf

year, they were then divided by the previous year's tonnage to calculate the forecast multiplier by STCC code rather than by individual movement. Finally, after the new multipliers were calculated, they were applied to the original Waybill Sample to produce the final forecasts of rail tonnages in Illinois.

Future Forecasts of Directional Rail Flows

As noted in the previous section, in 2014 Illinois railroads carried nearly 640 million tons of freight. The table below displays the forecasts of future rail flows in tons by direction when applying the FAF-4 forecast methodology described in the preceding section. Over the next 30 years, Canada to Non-Illinois U.S. flows are forecasted to be the fastest-growing directional movement, increasing 44.2 percent over the period. Canada to Illinois freight movements are predicted to grow 41.7 percent by 2040.

Table 2.2-4 Forecasts of Future Illinois Rail Traffic Directional Flows, by Tonnage

Traffic Type	2014	2020	2030	2040
Illinois to Non-Illinois U.S.	181,768,824.0	190,423,304.5	207,652,773.0	243,010,887.2
Non-Illinois U.S. to Illinois	227,693,292.0	227,307,182.1	230,795,784.8	239,328,511.2
Non-Illinois U.S. to Non-Illinois U.S.	159,918,949.0	162,344,595.2	168,966,571.2	178,812,312.7
Illinois to Illinois	24,368,738.0	23,881,590.6	23,508,637.9	23,651,693.7
Canada to Illinois	17,864,802.0	21,858,216.5	30,771,243.2	43,610,804.1
Canada to Non-Illinois U.S.	20,233,578.0	25,075,467.6	35,999,895.9	51,924,491.0
Illinois to Canada	5,529,276.0	6,754,081.9	9,469,438.6	13,344,556.5
Mexico to Illinois	349,004.0	420,269.0	576,681.8	798,093.9
Mexico to Non-Illinois U.S.	233,120.0	293,489.3	433,656.2	645,829.0
Illinois to Mexico	1,191,904.0	1,437,585.5	1,966,162.2	2,691,350.5
Total	639,151,487.0	659,795,782.3	710,140,844.6	797,818,529.8
Percentage Change from base year (2014)				
Illinois to Non-Illinois U.S.		4.8	9.0	17.0
Non-Illinois U.S. to Illinois		-0.2	1.5	3.7
Non-Illinois U.S. to Non-Illinois U.S.		1.5	4.1	5.8
Illinois to Illinois		-2.0	-1.6	0.6
Canada to Illinois		22.4	40.8	41.7
Canada to Non-Illinois U.S.		23.9	43.6	44.2
Illinois to Canada		22.2	40.2	40.9
Mexico to Illinois		20.4	37.2	38.4
Mexico to Non-Illinois U.S.		25.9	47.8	48.9
Illinois to Mexico		20.6	36.8	36.9
Total		3.2	7.6	12.3

Forecasts of Key Rail Commodities by Tonnage and Direction

Forecasts of Illinois to Non-Illinois U.S. Rail Traffic

In 2014, the rail system in Illinois moved nearly 181.8 million tons of freight from the state to other destinations in North America. Of the top outbound (in U.S.) commodities from Illinois, Food & Kindred Products is expected to grow by 66.1 percent over the next 30 years (see Fig. 2.2.28).

The chart below presents forecasts for the top outbound rail commodities going to other states in the U.S. from Illinois. Chemicals, accounting for 20.2 percent of inbound tonnage in 2014, will grow nearly 46 percent throughout the forecast period. Waste, Nonferrous Scrap represented the second-largest inbound commodity group by weight in 2014; this group is forecasted to grow nearly 56 percent throughout the forecast period.

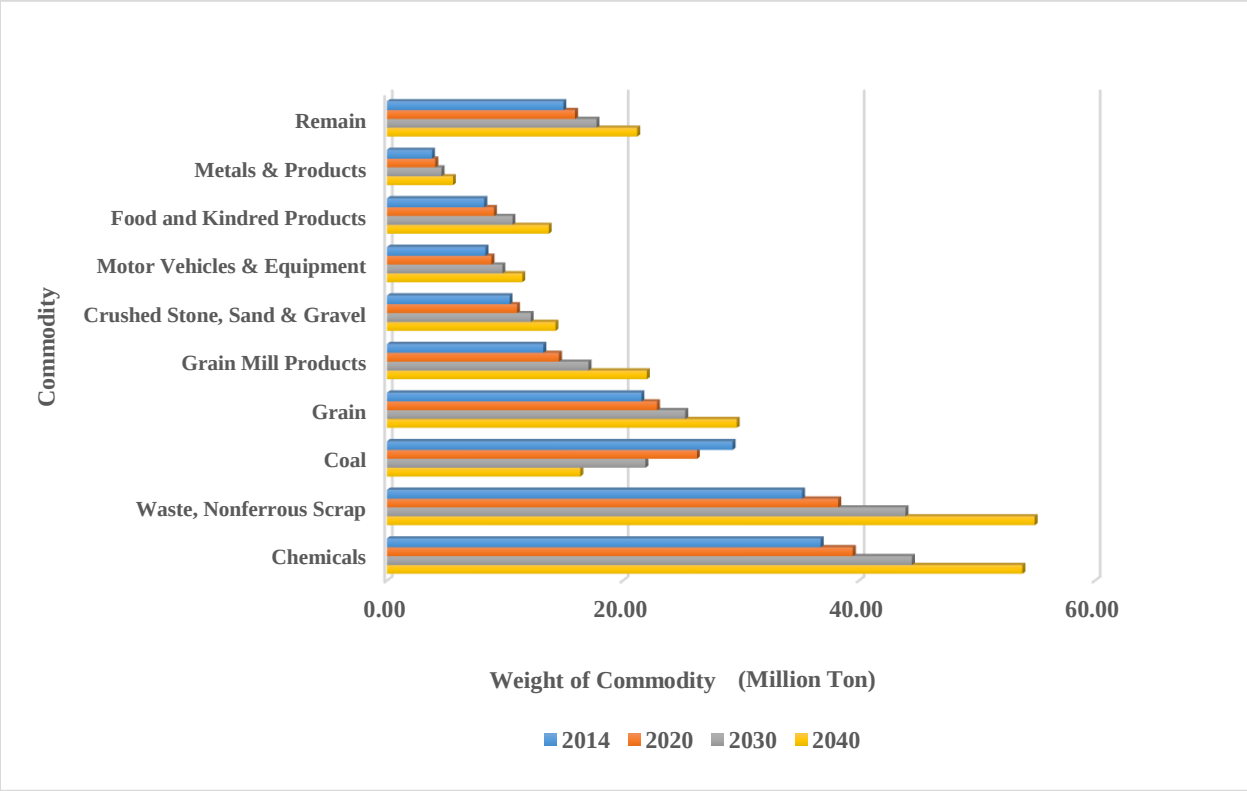

Figure 2.2.29 Forecasts of Top Rail Commodities from Illinois to Non-Illinois (US) Based on Weight (2014 – 2040) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Forecasts of Non-Illinois U.S. to Illinois Rail Traffic

The chart below presents forecasts for the top inbound rail commodities coming from other states. Coal, accounting for 43.3 percent of inbound tonnage in 2014, will decline by nearly 38 percent throughout the forecast period. Waste, Nonferrous Scrap represented the second-largest inbound commodity group by weight in 2014; this group is forecasted to grow nearly 43.5 percent throughout the forecast period.

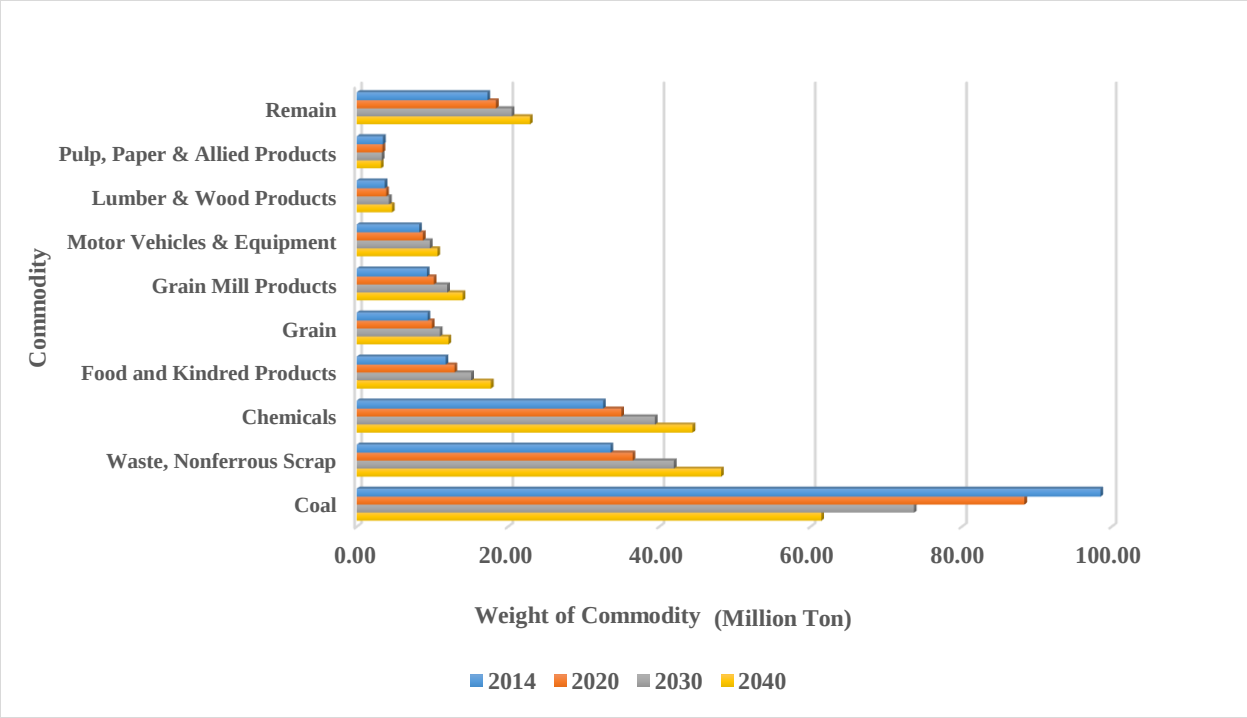

Figure 2.2.30 Forecasts of Top Rail Commodities from Non-Illinois (US) to Illinois Based on Weight (2014 – 2040) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Intrastate Rail Traffic in Illinois

In 2014, approximately 24.4 million tons of intrastate freight traffic was moved on rails in Illinois. The chart below shows the forecasted growth in tonnage among the top intrastate commodities moving by rail in Illinois. The top intrastate rail commodity in 2014, Coal, is expected to decline nearly 38 percent by 2040. Grain, the second-largest movement in 2014, is expected to grow nearly 28 percent throughout the forecast period.

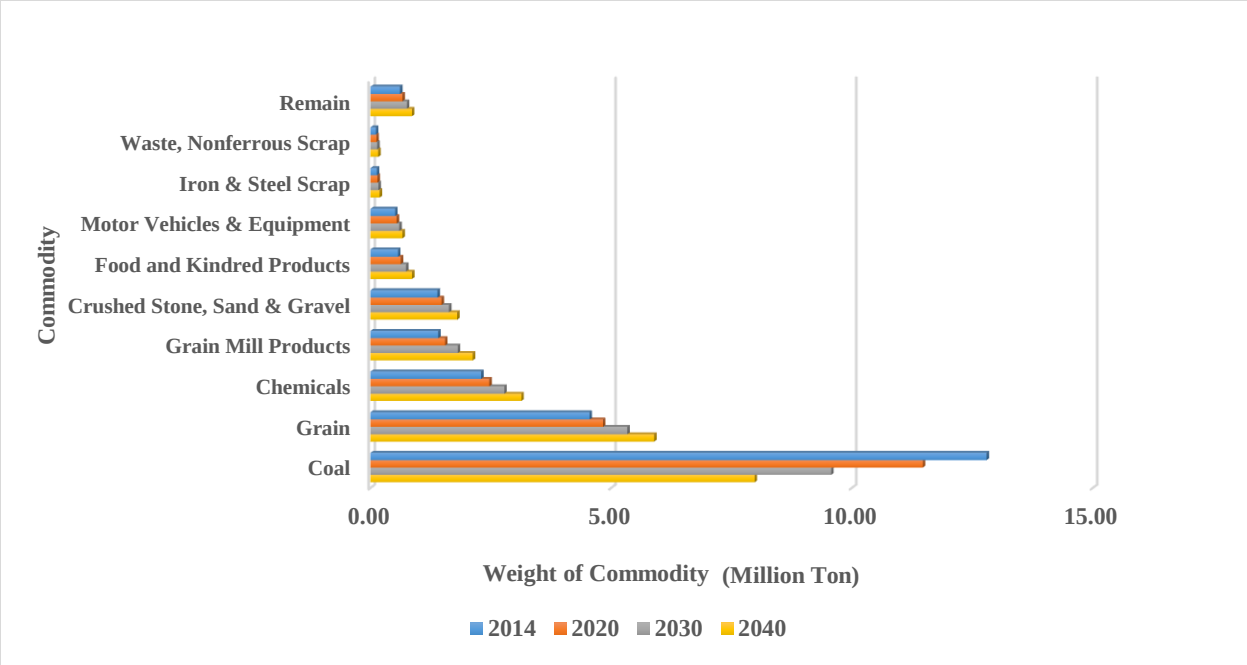

Figure 2.2.31 Forecasts of Top Rail Commodities from Illinois to Illinois Based on Weight (2014 – 2040) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Forecasts of Non-Illinois U.S. to Non-Illinois U.S. Rail Traffic

The chart below presents forecasts for the top through rail commodities coming from and going to other states. Coal, accounting for 31.8 percent of inbound tonnage in 2014, will decline nearly 38 percent throughout the forecast period. Chemicals represented the second-largest inbound commodity group by weight in 2014; this group is forecasted to grow nearly 37 percent throughout the forecast period.

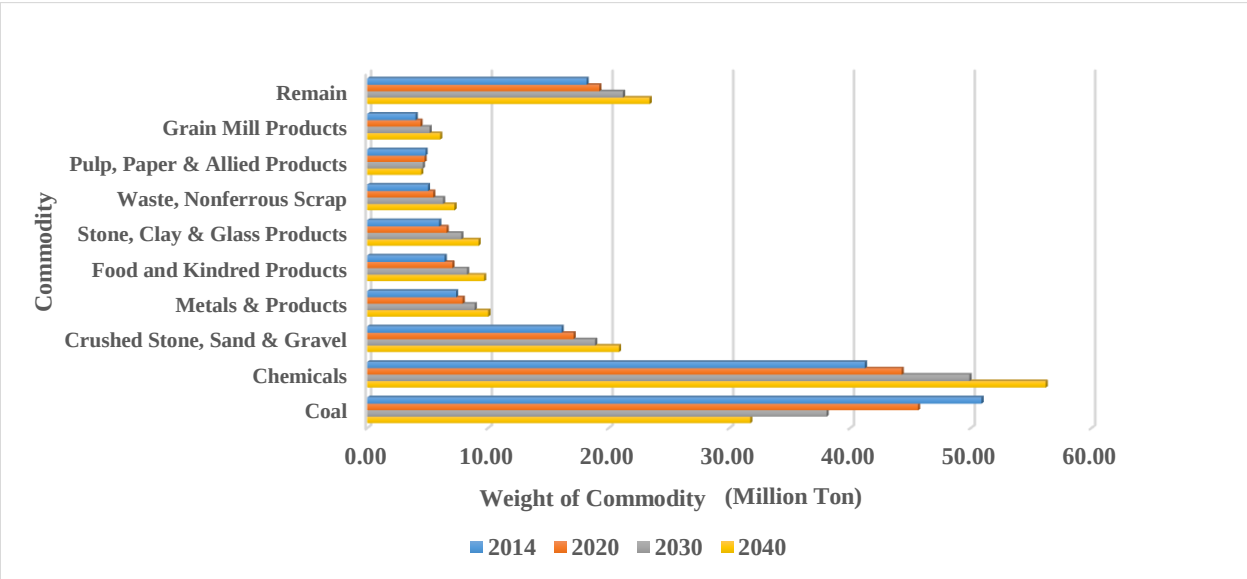

Figure 2.2.32 Forecasts of Top Rail Commodities from Non-Illinois to Non-Illinois (U.S.) Based on Weight (2014 – 2040) Prepared by UTC, based on 2014 STB Waybill Sample Data

Forecasts of Canada to Illinois Rail Traffic

The chart below presents forecasts for the top inbound rail commodities coming from Canada. Chemicals, accounting for 49.9 percent of inbound tonnage in 2014, will grow nearly 179 percent throughout the forecast period. Waste, Nonferrous Scrap represented the second-largest inbound commodity group by weight in 2014; this group is forecasted to grow nearly 65.6 percent throughout the forecast period.

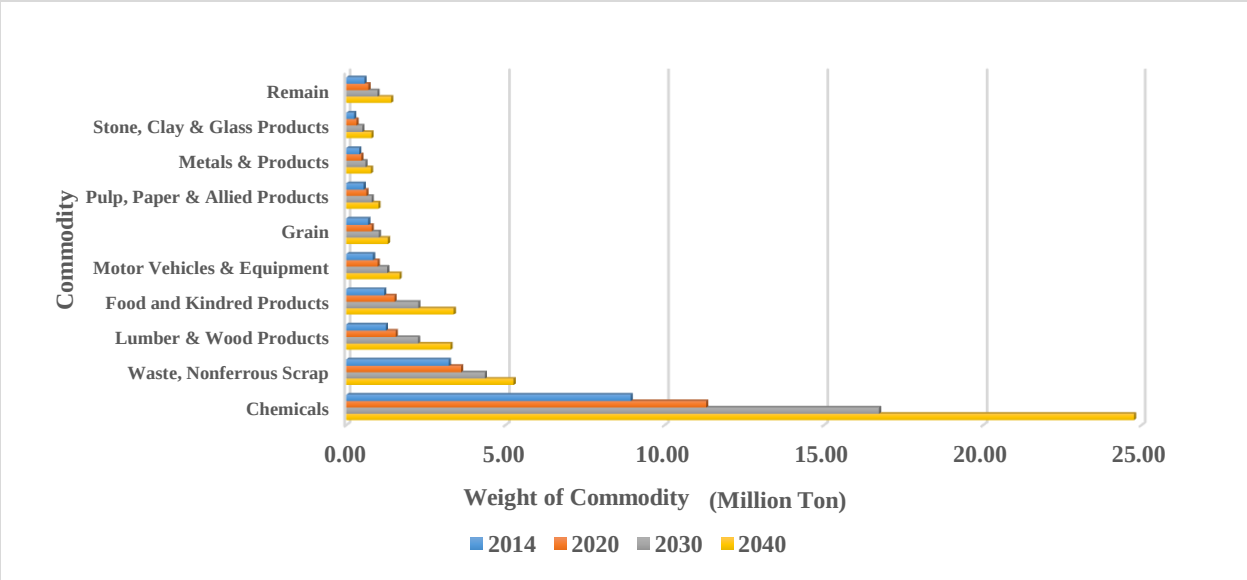

Figure 2.2.33 Forecasts of Top Rail Commodities from Canada to Illinois Based on Weight (2014 – 2040) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Forecasts of Canada to Non-Illinois U.S. Rail Traffic

The chart below presents forecasts for the top through rail commodities coming from Canada to other states. Chemicals, accounting for 57.7 percent of inbound tonnage in 2014, will continue to grow nearly 176 percent throughout the forecast period. Lumber & Wood Products represented the second-largest inbound commodity group by weight in 2014; this group is forecasted to grow nearly 159 percent throughout the forecast period.

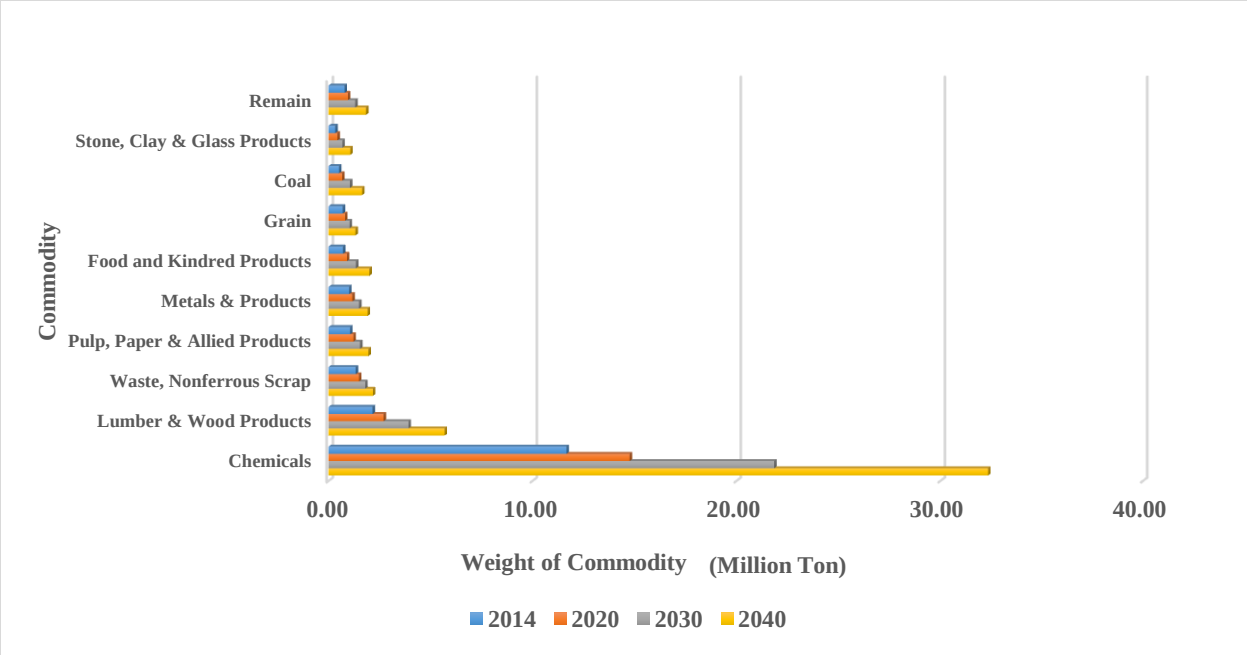

Figure 2.2.34 Forecasts of Top Rail Commodities from Canada to Non-Illinois Based on Weight (2014 – 2040) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Forecasts of Illinois to Canada Rail Traffic

The chart below presents forecasts for the top outbound rail commodities going to Canada. Chemicals, accounting for 34.7 percent of inbound tonnage in 2014, will grow nearly 142 percent throughout the forecast period. Waste, Nonferrous Scrap represented the second-largest inbound commodity group by weight in 2014; this group is forecasted to grow nearly 162 percent throughout the forecast period.

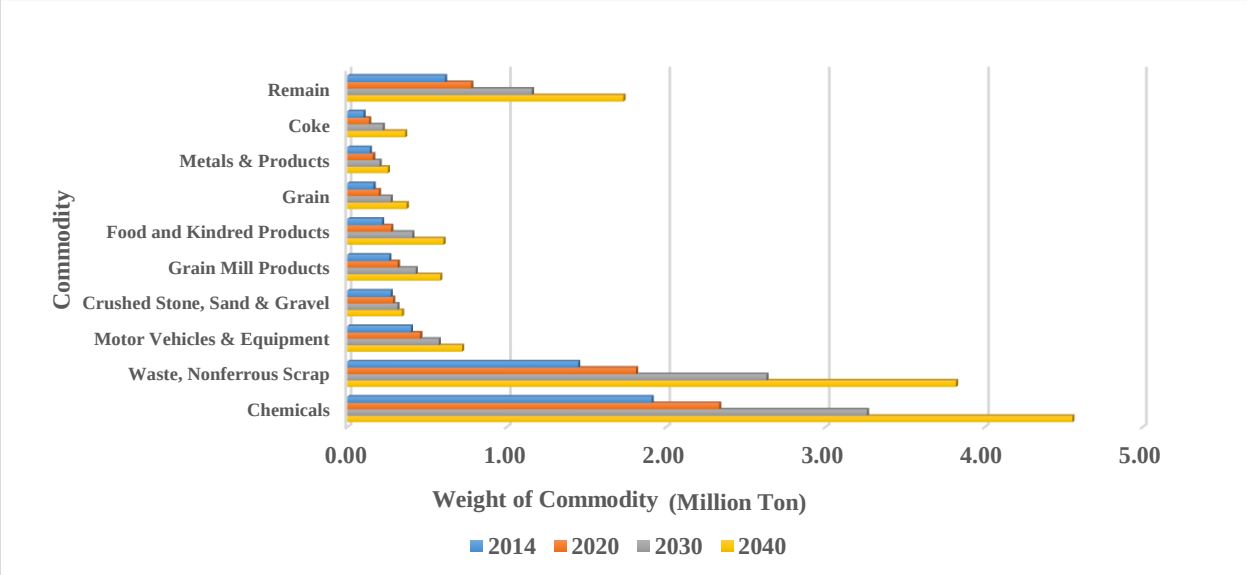

Figure 2.2.35 Forecasts of Top Rail Commodities from Illinois to Canada Based on Weight (2014 – 2040) (Prepared based on 2014 STB Waybill Sample Data)

Forecasts of Mexico to Illinois Rail Traffic

The chart below presents forecasts for the top inbound rail commodities coming from Mexico. Motor Vehicle & Equipment, accounting for 42.9 percent of inbound tonnage in 2014, will grow nearly 99.9 percent throughout the forecast period. Chemicals represented the second-largest inbound commodity group by weight in 2014; this group is forecasted to grow nearly 177 percent throughout the forecast period.

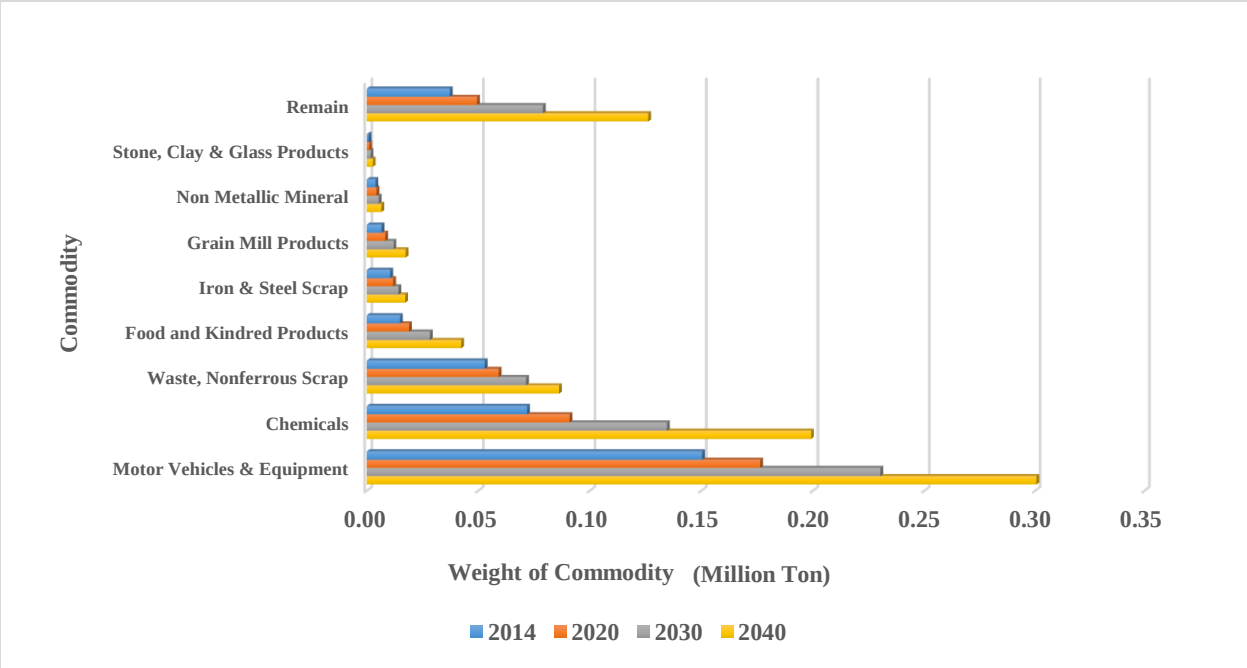

Figure 2.2.36 Forecasts of Top Rail Commodities from Mexico to Illinois Based on Weight (2014 – 2040) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Forecasts of Mexico to Non-Illinois U.S. Rail Traffic

The chart below presents forecasts for the top through rail commodities coming from Mexico to other states. Motor Vehicles & Equipment, accounting for 35.7 percent of inbound tonnage in 2014, will grow nearly 99.9 percent throughout the forecast period. Chemicals represented the second-largest inbound commodity group by weight in 2014; this group is forecasted to grow nearly 177 percent throughout the forecast period.

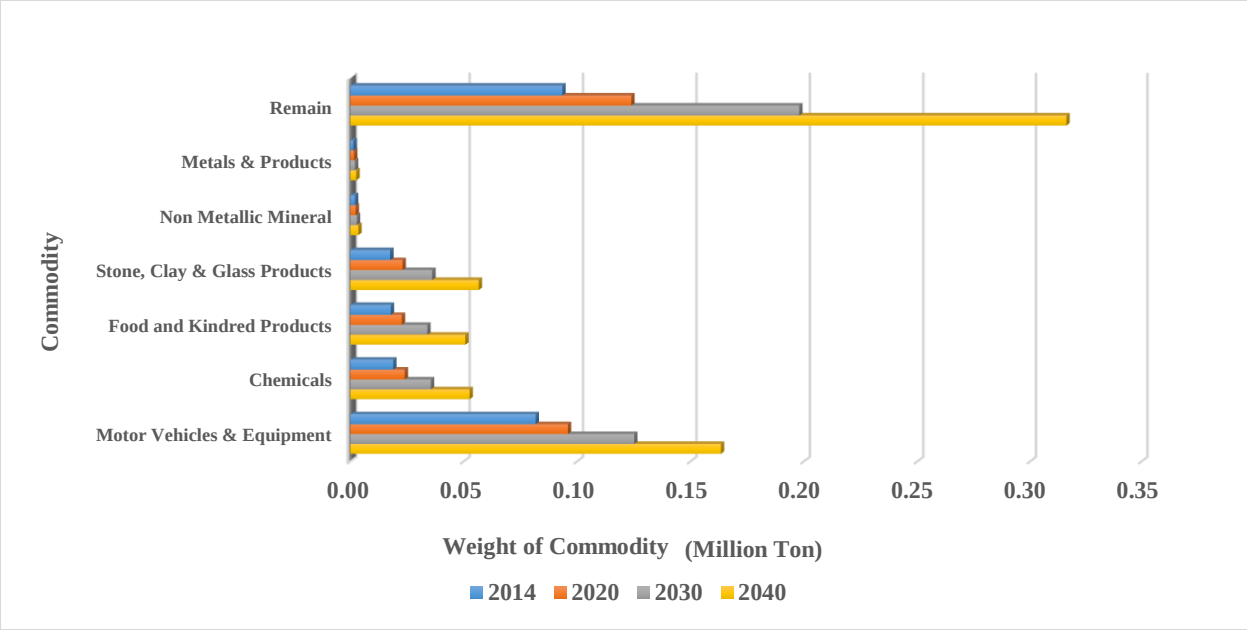

Figure 2.2.37 Forecasts of Top Rail Commodities from Mexico to Non-Illinois (U.S.) Based on Weight (2014 – 2040) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Forecasts of Illinois to Mexico Rail Traffic

The chart below presents forecasts for the top outbound rail commodities going to Mexico. Grain, accounting for 86.2 percent of inbound tonnage in 2014, will continue to grow nearly 123 percent throughout the forecast period. Grain Mill Products represented the second-largest inbound commodity group by weight in 2014; this group is forecasted to grow nearly 121 percent throughout the forecast period.

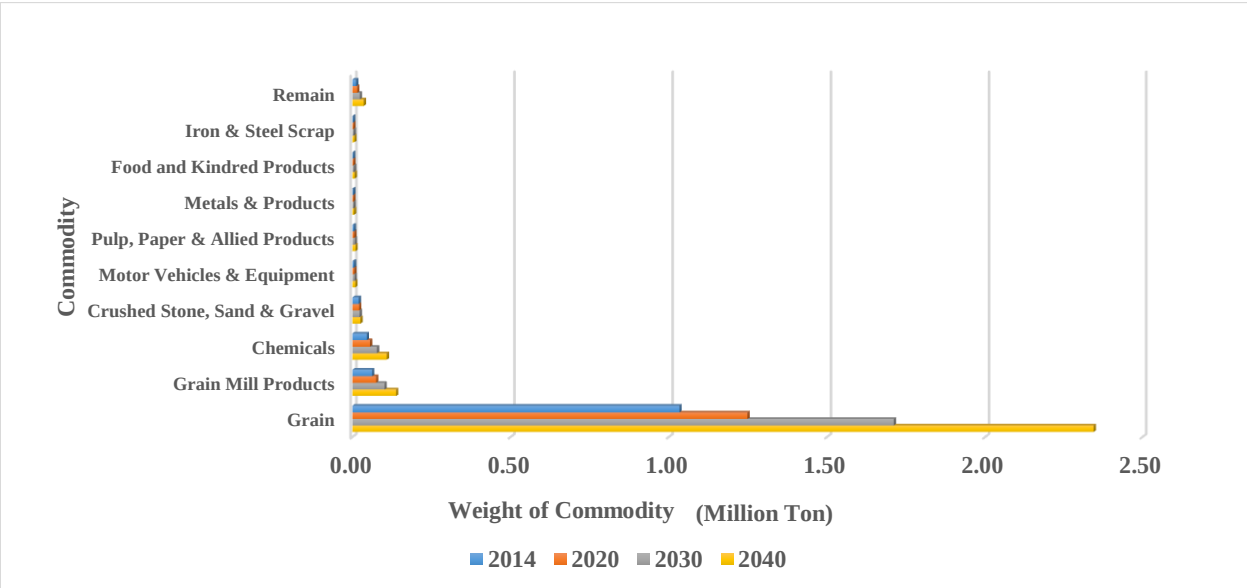

Figure 2.2.38 Forecasts of Top Rail Commodities from Illinois to Mexico Based on Weight (2014 – 2040) (Prepared by UTC, based on 2014 STB Waybill Sample Data)

Freight Rail Geographic Profile

Destinations of Outbound Freight Originated in Illinois

Nearly 187.9 million tons of freight was transported out of Illinois in 2014. The map below indicates the top destinations for freight that originated in Illinois. Non-Illinois U.S., Canada and Mexico were the most important markets for Illinois products exiting the state by rail.

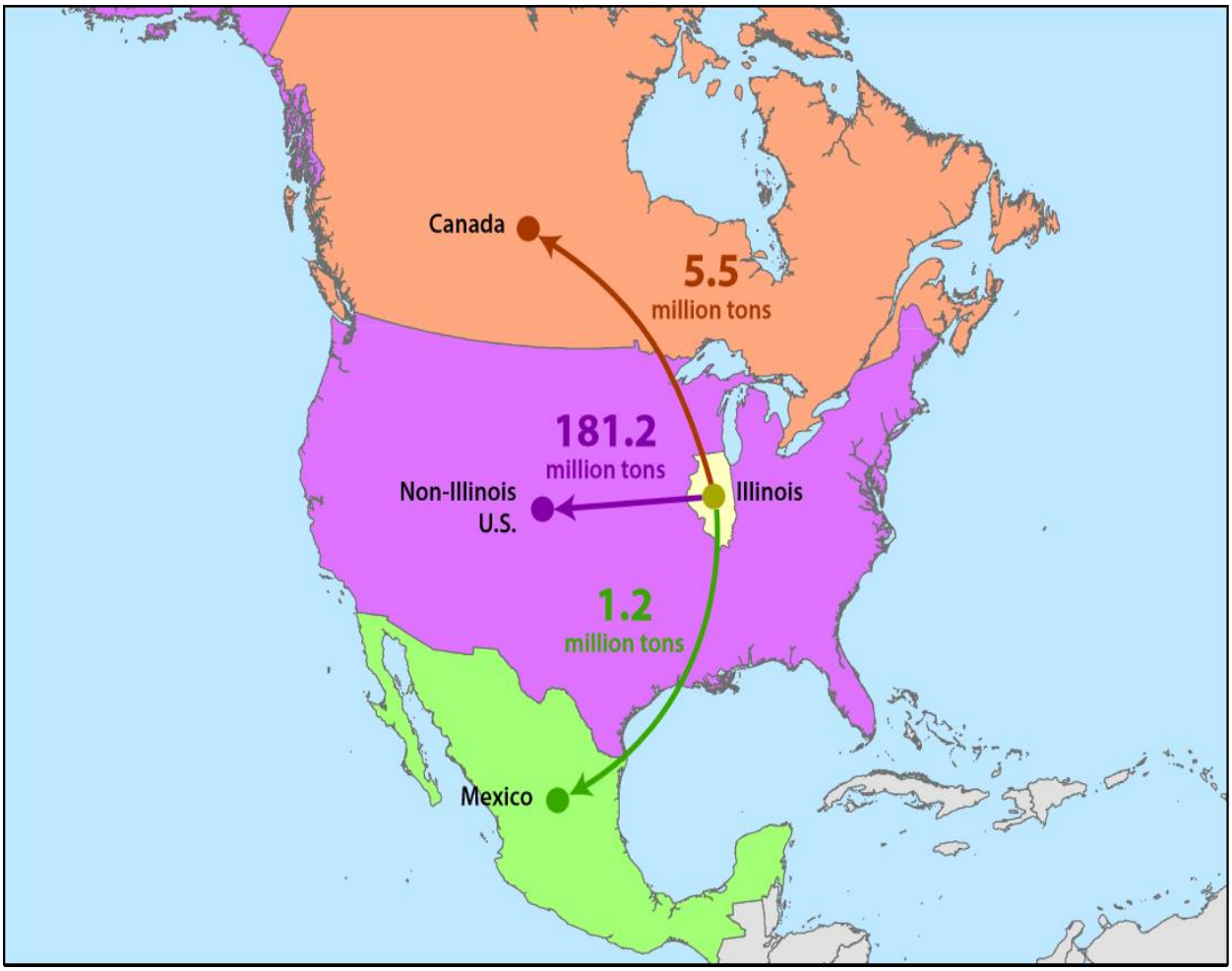

Figure 2.2.39 Destination (out of Illinois) of Interstate Rail Traffic Originated in Illinois. Prepared by UTC, Based on 2014 STB Waybill Sample Data

Origins of Inbound Freight Destined for Illinois

In 2014, more than 245.9 million tons of freight terminated in Illinois. The figure below shows the top states that originated freight destined for Illinois. By weight, over 92.6 percent of the inbound tonnage destined for Illinois originated from non-Illinois U.S.

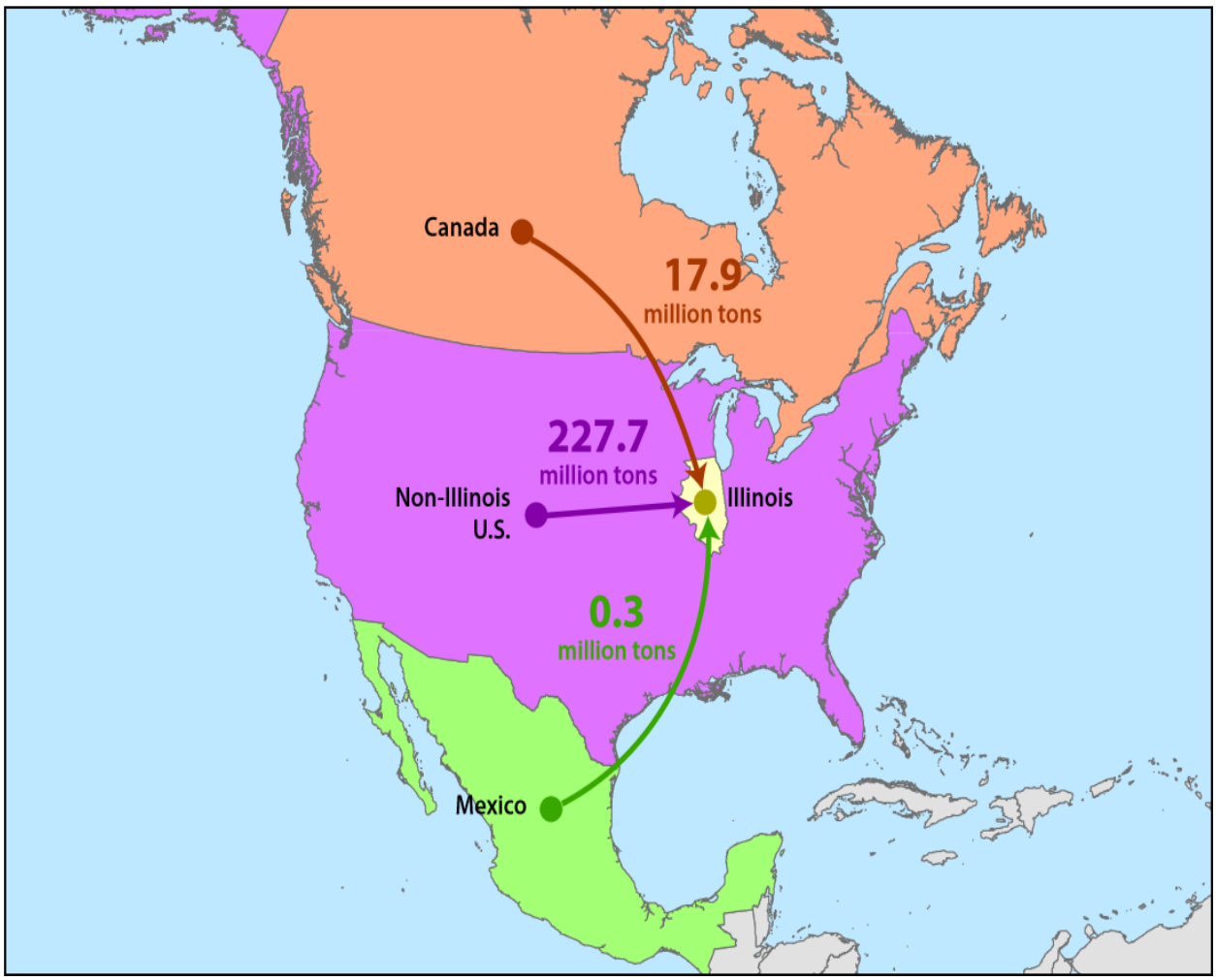

Figure 2.2.40 Origin of Interstate Rail Traffic Terminating in Illinois. Prepared by UTC, Based on 2014 STB Waybill Sample Data

Origins and Destinations of Through Traffic

In 2014, Illinois rail lines carried more than 180.3 million tons of through or overhead traffic across the state. As the crossroad for the largest U.S. Class I railroads, Illinois is also the crossroad for major rail commodity categories.

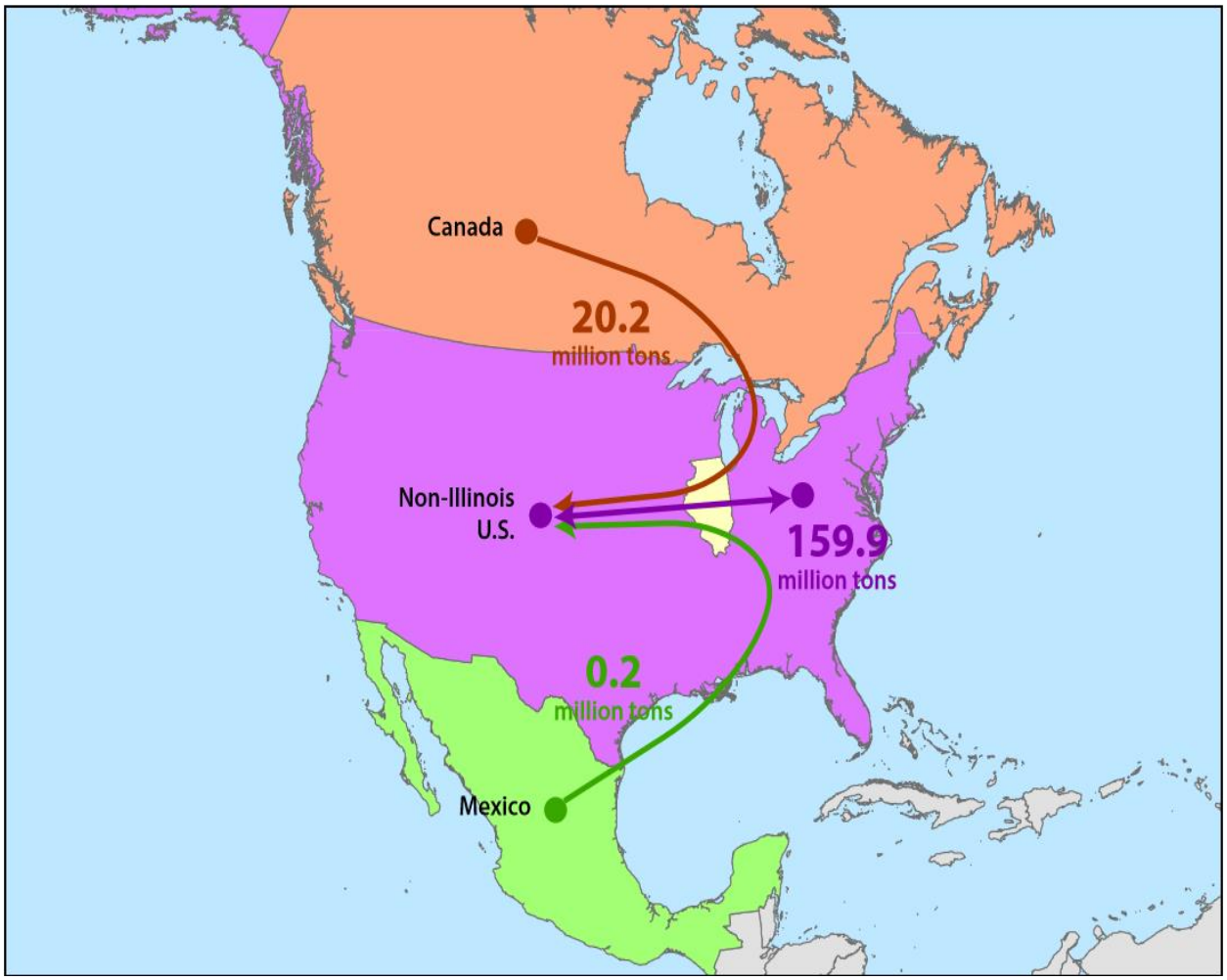

Figure 2.2.41 Origins of Rail Traffic through Illinois. Prepared by UTC, Based on 2014 STB Waybill Sample Data

2.2.3 Railroad, Highway and Airport Congestion Trends

Illinois has the second-largest rail system in the nation. Overall, 46 railroads provide service throughout the state, and from Illinois to every part of the nation. About 500 freight trains (totaling about 37,500 freight cars) and 700 passenger trains, including commuter lines, pass through Chicago every day. An efficient and innovative rail system and its associated infrastructure are necessary to meet such transportation needs, which also help create global investment opportunities involving Illinois' manufacturing industries and plants. This further creates advantages for the agricultural, financial and mercantile, and transportation and logistics industries throughout Illinois.

Chicago is the Midwest hub for Amtrak passenger rail service, serving as the transfer point for 10 regional and transcontinental routes. With one of the nation's first high-speed rail (HSR) services (connecting Chicago-St. Louis) anticipated to run in Illinois, the state can reap many benefits. The HSR service will link communities across Illinois, increasing mobility options for Illinoisans and supporting the diverse economy of the state. In addition, the HSR service can attract tourism.

Railroad On-Time Performance Trend

Much of the Amtrak and commuter rail passenger services in the state (with the exception of Metra's south suburban electric services) use shared rail tracks with freight trains, which can generate schedule conflict issues and delays. Figure 2.2.42 shows intercity passenger rail (Amtrak) on-time performance in aggregate over the past several years. Note that the on-time performance records include all delays that occur when Amtrak trains run on their own tracks. Reasons for train delays include equipment or engine failure, passenger handling, holding for connections, train servicing, and mail/baggage handling. Amtrak trains are considered on time if arrival at the endpoint occurs within the specified minutes of the scheduled arrival time, as shown in Table 2.2.5. The specified minutes depend on the trip length.

Table 2.2-5 Criteria for Measuring On-Time Performance of Amtrak

Trip length (miles)	Minutes late at endpoint
0–250	10 or less
251–350	15 or less
351–450	20 or less
451–550	25 or less
> 551	30 or less

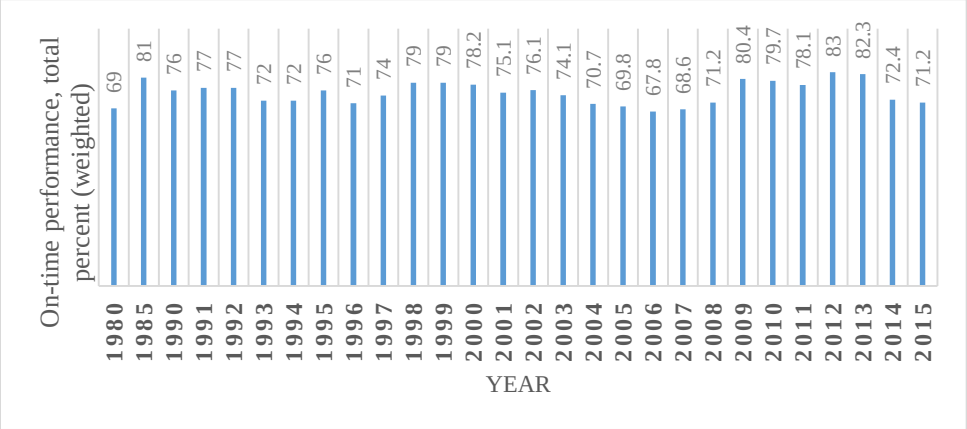

Figure 2.2.42 Amtrak On-Time Performance Trends[94] [95] [96]

Delay records are also collected on Metra's eleven commuter rail lines. Figure 2.2.43 depicts in aggregate on-time performance for Metra over the past several years. A Metra train being on time is defined as arriving at the last station less than six minutes behind schedule. Otherwise, trains are counted as being delayed (late trains also include annulled trains, i.e., trains that do not complete

[94] 1985-99: Ibid, Amtrak Annual Report, Statistical Appendix (Washington, DC: Annual Issues).

[95] 1980: Amtrak, National Railroad Passenger Corporation Annual Report (Washington, DC: 1981).

[96] 2000-15 Amtrak, personal communications, October 2010, October 2011, December 2012 and February 25, 2016.

their scheduled runs). “Extra” trains (trains added to handle special events but not shown in the regularly published timetables) are excluded from on-time performance calculations unless shown in special-event schedules that include stop times at all intermediate stations and distributed publicly on the Metra website or paper flyers. Cancelled (not annulled) trains and non-revenue trains are excluded from on-time performance calculations.

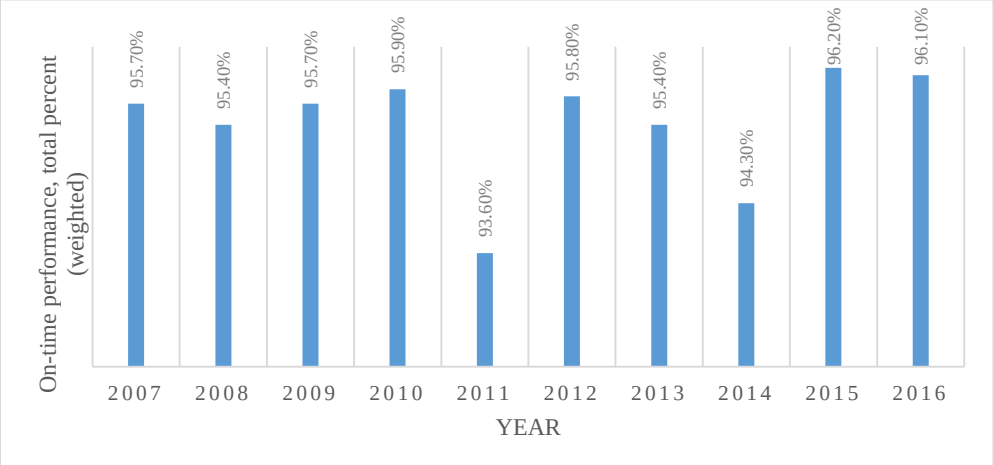

Figure 2.2.43 Metra On-Time Performance[97]

Highway Congestion Trend

Roads and highways are the backbone of the U.S. transportation system, allowing Americans to travel more than 2 trillion miles annually. However, the conditions of roads and highways have been deteriorating, due to insufficient funding for infrastructure maintenance, rehabilitation and renewal. As Illinois and the United States continue to rebound from the economic recession, making infrastructure improvements that are much needed for roads, bridges and public transit could provide a significant boost to the state’s economy by creating new jobs and stimulating long-term economic growth as a result of enhanced mobility and access.

The findings on highway congestion in the *2015 Urban Mobility Scorecard* draw from traffic speed data collected by INRIX on 1.3 million miles of urban streets and highways, and highway performance data from the Federal Highway Administration. The 2015 edition provides a comprehensive analysis of traffic conditions in 471 urban areas across the United States.[98] Figures 2.2.44 and 2.2.45 depict the congestion trends in two of the conspicuous highways (Chicago, IL-IN & St. Louis, MO-IL) connecting Illinois to the rest of the United States. In both figures, an increasing trend of congestion is suggested. Note that very large urban areas represent more than 3 million in population whereas large urban areas represent over 1 million and less than 3 million in population.

[97] https://metrarail.com/about-metra/reports-documents/operations-and-ridership-data-0/on-time-performance-reports-2016

[98] https://www.bts.gov/archive/publications/state_transportation_statistics/state_transportation_statistics_2010/table_05_05

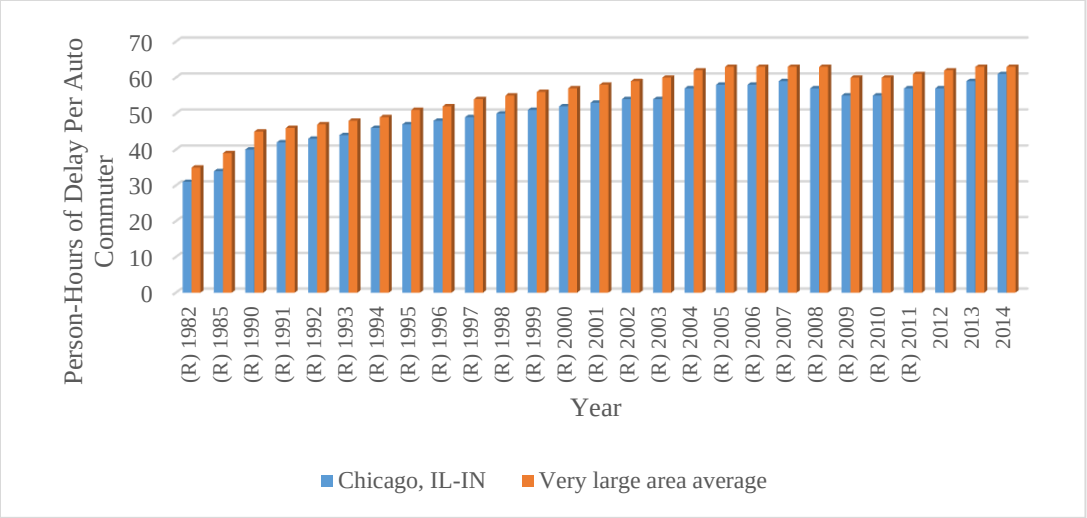

Figure 2.2.44 Annual Person-Hours of Highway Traffic Delay (Very Large Area) Per Auto Commuter

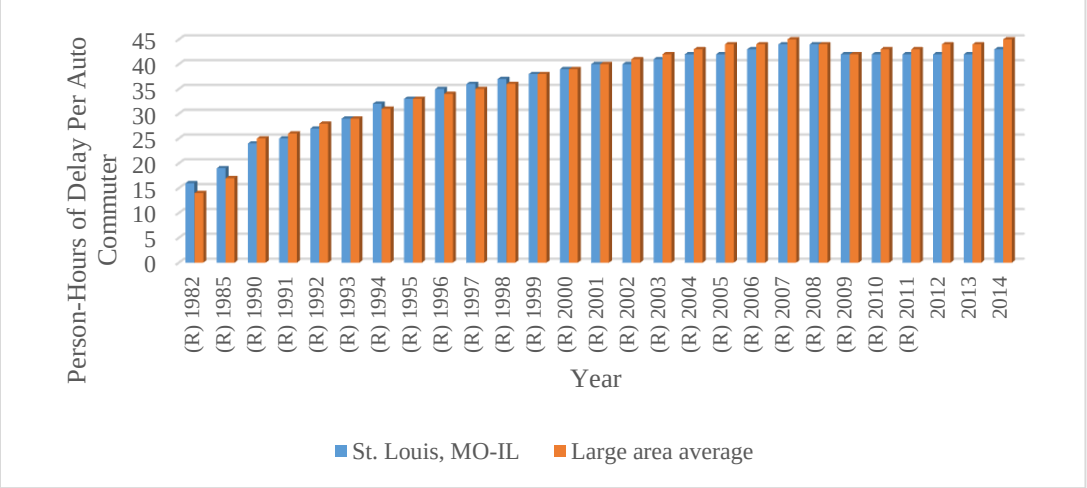

Figure 2.2.45 Annual Person-Hours of Highway Traffic Delay (Large Area) Per Auto Commuter

The Chicago Metropolitan Agency for Planning (CMAP), the agency for metropolitan area planning of the Chicago region, is campaigning for congestion pricing on five highways including all lanes of the Route 53 extension. Other road-related projects in CMAP include adding a congestion-priced lane to I-90/Jane Addams (as opposed to converting an existing lane); congestion pricing on all lanes of the Elgin-O'Hare Expressway (instead of having a static toll on all lanes); converting a lane to a congestion-priced lane on I-290/Eisenhower (this corridor also has parallel rapid transit and commuter rail); and widening I-55/Stevenson to add a new congestion-priced lane (versus converting an existing lane). The last three proposals are in the study phase.

Not all of these proposals would result in less traffic, however. The ones that include additional road lanes would likely induce more driving and dump more traffic on local streets. Much better are the proposals that tag a price on roads without widening them, which can help shift trips from driving to

transit, biking and walking. An even better path forward would be to allocate some of the revenues from congestion pricing to transit, bike and pedestrian investments. That would give a major boost to improving the passenger rail system while helping to ensure that the region can cope with the ever-increasing transportation demand.

Airport On-Time Performance Trend

Midway Airport beat out O'Hare International Airport when it came to on-time air travel in 2016, according to OAG, an air travel intelligence company that tracks the on-time performance of airlines and airports around the world. On-time performance tracks the percentage of flights that either departed or arrived later than scheduled, and the flights whose operations were cancelled. Both Midway and O'Hare have been getting packed with passengers over time. Figures 2.2.46 through 2.2.49 depict the on-time performance and the number of flight cancellations at the two airports.

Flight delays and cancellations are determined by a variety of factors. Adverse weather accounts for the majority of delays. Equipment, security, personnel (crews timing out), re-routes and airline-specific issues account for the remainder. For purposes of measuring on-time performance, a flight is considered delayed at the arrival/departure if it arrived at/departed from the gate 15 minutes or more than the scheduled arrival/departure time. The information is based on data submitted by reporting carriers. The number of reporting carriers varies each year; 12 carriers were reported in 2017.

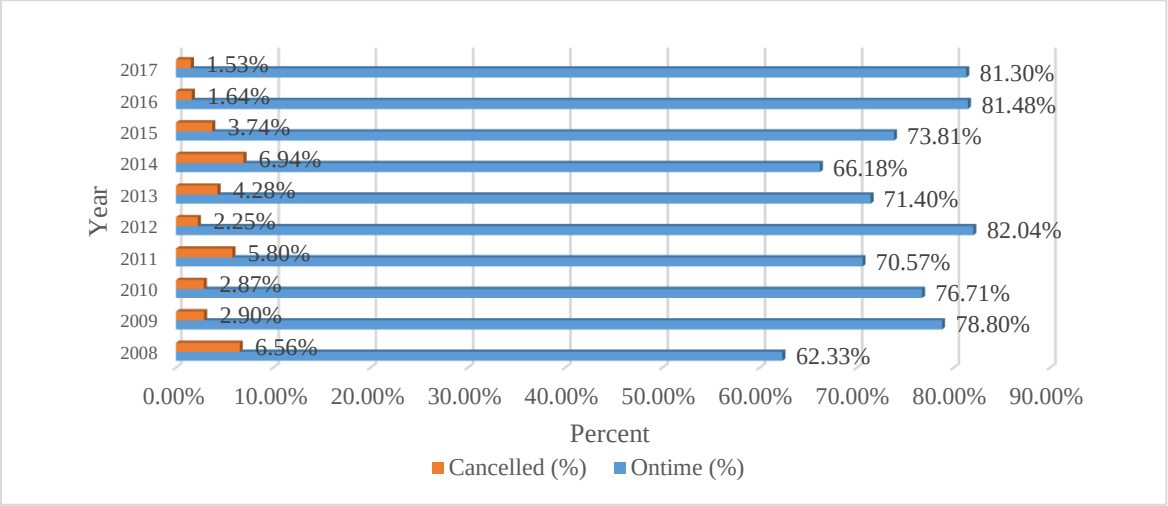

Figure 2.2.46 Chicago O'Hare International Airport On-Time-Performance (Based on Arrivals)[99]

[99] https://www.transtats.bts.gov/HomeDrillChart.asp?URL_SelectMonth=5&URL_SelectYear=2017 (last accessed July 2017)

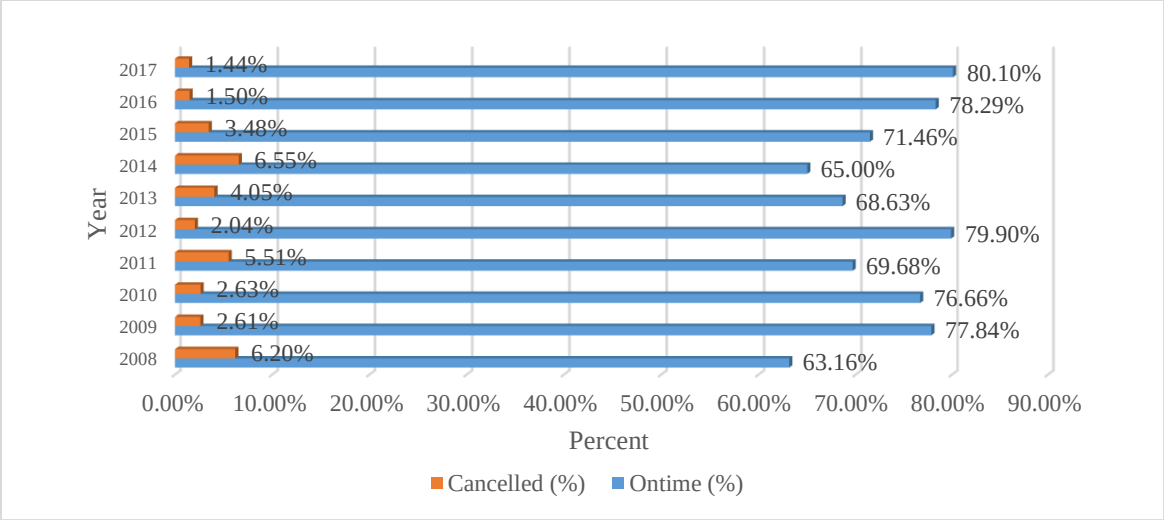

Figure 2.2.47 Chicago O'Hare International Airport On-Time-Performance (Based on Departures)

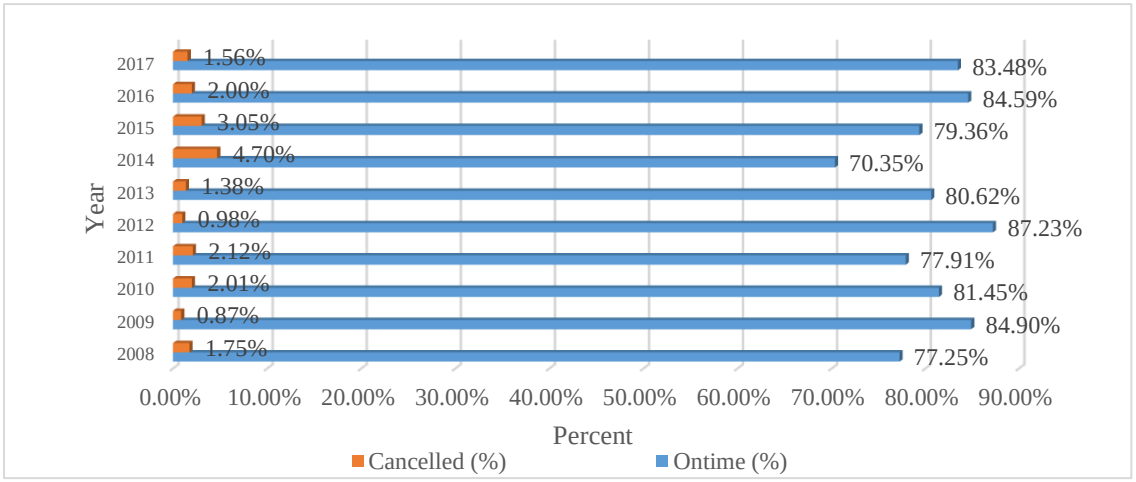

Figure 2.2.48 Chicago Midway International Airport On-Time-Performance (Based on Arrivals)

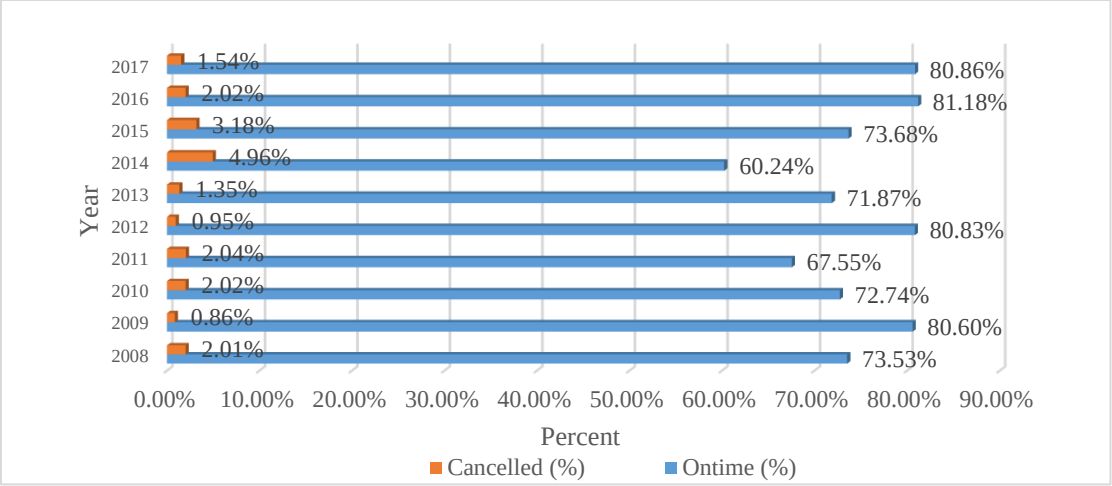

Figure 2.2.49 Chicago Midway International Airport On-Time-Performance (Based on Departures)

2.2.4 Impacts of the Illinois Rail Transportation System

Freight and passenger rail service have a large impact on the competitiveness of Illinois businesses, as well as on the quality of life of ordinary people within the state. This section analyzes the economic, environmental, energy, land use and community impacts of rail transportation in Illinois.

Economic Impacts

In our modern global economy, having cost-effective, time-definite transportation services has increasingly become a competition strategy in manufacturing, mining, agriculture and service-based industries. This is because businesses in these industries compete regionally, nationally and globally for production inputs such as raw materials, parts and labor. Effective and efficient transportation enhances the access of the businesses to such inputs, while also enabling the delivery of manufactured goods and services to a broader customer base.

Because rail is a vital component of the Illinois economy, transportation investment can improve access and attract new business. The presence of an effective and cost-efficient rail network can dramatically reduce the cost of doing business and can be a consideration in establishing a site for new business. Many of the state's most important industries rely heavily on rail, including coal, energy and intermodal.

The rail industry also impacts Illinois' economy through railroad employment. As mentioned earlier, the Illinois freight rail industry employed 13,152[100] people in 2014, with annual wages and benefits over $1.45 billion. Illinois is also home to over 40,800 railroad retirement beneficiaries. Illinois ranks second in the nation for railroad employment and wages. With 53,952 railroad employees and retirement beneficiaries, Illinois is among the most important railroad states in the nation.

Environmental Impacts

Railroads are leaders in environmental sustainability. One train can carry as much freight as several hundred trucks. It would have taken approximately 29.5 million additional trucks to handle the

[100] https://www.aar.org/data-center/railroads-states#state/IL

531.5 million tons of freight that moved in Illinois by rail in 2014. Freight rail, depending on the commodity carried and the distance traveled, is 1.9 to 5.5 times more fuel-efficient than truck.

According to AAR, moving freight by rail reduces greenhouse gases by an average of 75 percent compared to the same movement by truck. If just 10 percent of the long-haul freight that currently moves over the road could be switched to rail service, the national fuel savings would exceed one billion gallons of fuel per year. Annual greenhouse gas emissions for this same amount of freight diversion to rail would be decreased by an estimated 12 million tons.

Energy Impacts

Fuel cost historically is the second-largest transportation cost behind labor in the transportation industry. When fuel prices escalate, carriers have the highest risk exposure within the supply chain. Many carriers index the price of fuel and include fuel surcharges on top of transportation rates. Figure 2.2.49 depicts the trend of crude oil purchase price in Illinois ibetween 1980 and 2015.

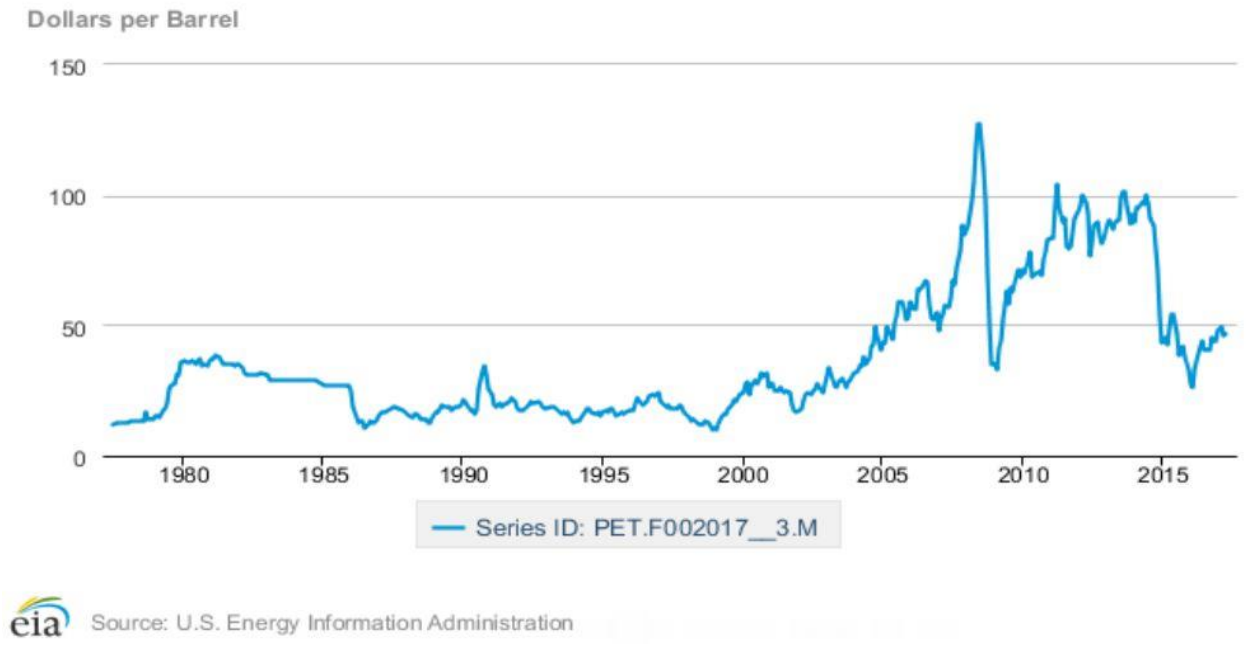

Figure 2.2.50 Crude Oil First Purchase Price Trend in Illinois

When fuel prices increase, three things can generally happen. Firstly, many small truckers and brokers who attempt to cover the increased fuel costs by charging customers at a higher rate will go out of business. This reduces the capacity of highway carriers. Secondly, shippers examine mode shifts where truck shipments could be made via rail intermodal service to reduce fuel surcharge expense, which results in increased intermodal shipments. Thirdly, if fuel costs remain high for an extended period, shipment consolidation and adjusted site locations are identified.

Land-Use Impacts

Today, with the high cost for fuel, roadway congestion and negative environmental impacts related to moving people and freight on roadways, there is an increased interest in the benefits of concentrating rail-related land development for both freight and passenger travel. Cargo-Oriented Development (COD) and Transit-Oriented Development (TOD) are now being looked on favorably by land-use planners and communities. COD is a place where manufacturing and distribution businesses are concentrated to benefit from efficient access to multiple modes of freight transportation, complementary businesses clustered around this transportation mode, and an available industrial workforce. TODs integrate moderately dense housing with a mix of businesses and services within pleasant walking distance to/from a public transit system. TOD residents typically reduce their carbon footprints and transportation costs due their ability to make routine trips without having to drive. Many older suburban downtowns built around rail stations are TODs by design. The suburbs of Chicago contain dozens of TOD communities connected by four rail lines (CN, CSX, NS and UP) that also carry freight to TODs.

Community Impacts

Noise from railroads impacts communities. Sixty-four percent of Illinois' population lives within a mile of a rail crossing.[101] Train horns create noise and present a major issue to surrounding communities. However, for everyone's safety, federal regulation requires locomotive horns to be sounded for 15 to 20 seconds before entering all public grade crossings, but not more than one-quarter mile in advance. This federal requirement preempts any state or local laws regarding the use of train horns at public crossings. Communities wishing to establish quiet zones in their neighborhoods must work through the appropriate public authority responsible for traffic control or law enforcement at the crossings.

Safely moving hazardous materials is another community concern. The railroad industry is one of the safest modes for shipping hazardous materials. According to the Illinois Commerce Commission, approximately 20 million tons of chemicals, many of which are hazardous, are moved on the Illinois rail system each year.

[101] Rail White Paper, 2017 Illinois Long-Range Transportation Plan

Chapter 3: Proposed Passenger Rail Improvements and Investments

The Illinois Department of Transportation continues to lead the way on improving and adding passenger rail service within the state in order to provide a more balanced transportation system and provide the traveling public with greater mobility options. This chapter describes the improvements and investments that could address the passenger rail needs of the state of Illinois.

3.1 Proposed Intercity Rail Program

Passenger rail in Illinois is comprised of intercity, commuter rail, and light and heavy rail transit. However, the Passenger Rail Improvement and Investment Act (PRIIA) of 2008 defines passenger rail as consisting of intercity and commuter rail.

Illinois has contracted with Amtrak to subsidize passenger rail service since 1971. PRIIA requires an equitable arrangement of cost sharing between Amtrak and state or public agency partners that provide funding for short-distance, intercity passenger rail services. Agreements were reached with Illinois to support the operation of trains on three routes between Chicago and downstate Illinois: Chicago and St. Louis (Lincoln Service), Chicago to Carbondale (Saluki/Illini), and Chicago to Quincy (Carl Sandburg/Illinois Zephyr). In addition, Illinois and Wisconsin jointly support seven daily round-trip trains between Chicago and Milwaukee on the Hiawatha Service. The state's operating subsidy with Amtrak was approximately $50 million in FY2017. In FY 2016, ridership was down 3.4 percent from FY 2015 with a total of 4.6 million riders at Illinois stations.

Since the American Recovery Investment Act of 2010 grant that initially funded the Chicago-St. Louis High-Speed Rail Project ($1.2 billion), Illinois' signature high-speed rail route has received an additional $300 million in federal and state funds for corridor improvements between Joliet and St. Louis. Upon completion of construction on the Chicago-St. Louis corridor, the corridor will feature much-improved service reliability and safety with four-quadrant gates at grade crossings and Positive Train Control (PTC), and increased top speeds of 110 mph once PTC has been completed. In addition, Illinois is working with a consortium of Midwest states to procure new locomotives and passenger cars for intercity passenger rail services.

Additional federal and state funds have been applied to other passenger rail projects of significance, including the Chicago-Quad Cities corridor project ($223 million federal and state combined), the Moline Multimodal Station project ($16 million federal, TIGER grant, state), and the Joliet Multimodal Transportation facility ($50 million state, city of Joliet, BNSF).

The FY 2018-2021 intercity rail portion of the STIP totals $854.1 million. The federal portion of the program represents $258.9 million of the total funding, with the state contributing $575.2 million. Tables 3.1.1 and 3.1.2 provide a breakdown of funding by fiscal year and passenger rail projects for FY 2018-2021.

Table 3.1-1 Intercity Rail Program Funding (Source: IDOT Office of Intermodal Project Implementation)

FY 2018-2021 Funding
($Millions)

FUNDING SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2018-2021
FEDERAL	69.6	88.1	61.1	60.1	258.9
STATE	165.5	166	115.7	121.7	575.2
TOTAL	235.1	254.1	183.1	181.8	854.1

Table 3.1-2 Intercity Rail Program Projects (Source: IDOT Office of Intermodal Project Implementation)

FY 2018 – 2021 Intercity Rail Program
($Millions)

Corridor	Project Location and Description	Est. Cost	Est. FY
Chicago to St. Louis	Dwight – Alton: Improve signals, tracks, grade crossings, passenger equipment to permit 110 mph service; additional reliability improvements and new equipment deliveries.	$387	FY 2018-2021
Chicago to Quad Cities Amtrak Service	Construct new track connection near Wyanet, a train layover facility, and other improvements necessary to improve service.	$200	FY 2018-2021
Chicago Terminal Planning Study	Study with partners, FRA, Metra, and Chicago DOT to analyze existing and proposed Amtrak, Metra, and freight operations in the Chicago Terminal area.	$6.0	FY 2018-2021

3.2 High-Speed Rail

The Illinois high-speed rail project between Chicago and St. Louis is in its final stretch to bring faster and improved travel to the Midwest, attracting travelers across the nation. For FY 2018-2023, the program proposes a total of $387 million in corridor improvements.[102]

Since 2013, IDOT and the Union Pacific Railroad (UP) have continued upgrading the Chicago-St. Louis high-speed rail corridor to expand the territory in which trains may run at 110 mph. These upgrades include the installation of premium rail with concrete ties and stone ballast, upgrades to bridges, culverts and drainage, signal and wayside equipment installations and upgrades, and roadway-rail grade crossing improvements.

From 2015-2017, infrastructure improvements will be completed with increased speeds over the entire Joliet-East St. Louis segment, travel time will be reduced by an hour and new locomotives will be delivered. In 2016, a TIGER grant was awarded in the amount of $14 million to the city of Springfield for the construction of two underpasses at Ash and Laurel Streets.

The proposed program provides $1.95 billion, with 90 percent from federal grants to continue improvements to signal systems, drainage, stations and crossings, as well as bridge replacements and siding construction to allow better train speeds. The proposed investments for the five-year program are an important element in the state's effort to provide multimodal transportation options that encourage economic productivity and growth and enhance the quality of life for Illinoisans. For travelers, rail transportation offers a convenient and safe alternative to travel by highway and air.

3.3 Regional Long-Range Plans – Metropolitan Planning Organizations

IDOT, MPOs, and service operators and providers have been active in passenger rail planning for decades. This chapter examines the improvements and investments that have been proposed by MPOs in their LRTPs, projects that have been funded to improve existing passenger rail services, and projects that have been funded to establish new intercity and high-speed passenger rail services. Intermodal connections at existing and new passenger rail stations and recommendations on ways to further promote intermodal connectivity are also discussed.

This section describes recommendations for passenger rail service as presented in Illinois' MPO LRTPs.

3.3.1 Bi-State Regional Commission Plans

The Bi-State Regional Commission's *2045 Quad Cities Long-Range Transportation Plan* was adopted in March 2016.[103] One of the LRTP's goals for transportation is to "Develop a transportation system to provide for the sustainable movement of people and goods." According to IDOT, ridership growth is expected to continue as new routes, such as Chicago-Rockford and Chicago-Quad Cities, are developed.

Feasibility studies were conducted by Amtrak at the request of IDOT and IADOT to examine the potential for passenger rail service between Chicago, the Quad Cities and Iowa City. The study found

[102] DOT FY2018-2023 Proposed Multi-Modal Improvement Program

[103] http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-19-45/quad-cities-metro-lrtp-long-range-transportation-plan

ridership on the Chicago-Quad Cities route would increase to 187,000 passengers annually if the Chicago-Iowa City route were established. As of 2015, work is ongoing to reestablish passenger rail service to the Quad Cities. The implementation of the Amtrak route from Moline to Chicago remains important for the Quad Cities region. Construction is underway to increase capacity of rail facilities west of Chicago, but no date is set for service to begin. Environmental work on the corridor between Chicago-Quincy has been completed. The section of the corridor between Wyanet and Moline is still in progress; IDOT is collaborating with Iowa Interstate Railroad (IAIS) on environmental work to determine what upgrades are needed to allow for passenger trains.

Developers are also moving ahead with the construction of The Q, the $35 million multimodal station that is expected to be completed with rail service by 2018. The design incorporates a 95-room Westin Element Hotel, retail space and the train station, and is meant for planned passenger service between Chicago and the Quad Cities.

3.3.2 Champaign-Urbana Urbanized Area Transportation Study Plans

CUUATS' long-range transportation plan, *Sustainable Choices 2040*, was approved in 2014.[104] The plan's overall mission is to offer sustainable transportation choices within the region that will help balance the economic, environmental and social aspects of urban growth development.

Amtrak passenger rail service uses the Illinois Terminal in downtown Champaign as its service hub for the urbanized area. Amtrak continues to increase passenger ridership and frequency of trains using the Illinois Terminal. Area residents voiced appreciation for this comfortable and easy link to other regional centers. To improve ridership for all modes utilizing the Illinois Terminal, a marketing program should be created to link Amtrak, CU-MTD and the various intercity transit companies so users can quickly and easily get schedules and routing information.

As part of the LRTP's goals and objectives, the plan called for increased accessibility, connectivity and mobility of people and freight to all areas of the region through the use of an interconnected multimodal system. For passenger rail, the objective to meet this goal is to begin construction of high-speed rail infrastructure between Champaign and Chicago by 2035. A high-speed connection between Champaign and Chicago/St. Louis would greatly decrease the commuting time between the cities and would help grow the local and regional economies of the Champaign-Urbana area and other areas in downstate Illinois.

3.3.3 Chicago Metropolitan Agency for Planning

CMAP is the official regional planning organization for the northeastern Illinois counties of Cook, DuPage, Kane, Kendall, Lake, McHenry and Will. In 2010, CMAP completed the first comprehensive regional plan in more than 100 years, known as the *GO TO 2040* comprehensive regional plan.

GO TO 2040 establishes coordinated strategies that help the region's 284 communities address transportation, housing, economic development, open space, the environment and other quality-of-life issues. The agency and its partners are now developing *ON TO 2050*, a new comprehensive regional plan slated for adoption in October 2018.[105]

[104] https://cuuats.org/sites/lrtp2040/
[105] http://www.cmap.illinois.gov/onto2050

The *ON TO 2050* comprehensive regional plan will recommend a suite of actions to achieve the sustainable prosperity of all metropolitan Chicago. The plan is organized according to three overarching principles that support the regional vision and will be relevant to the ON TO 2050 plan's strategies:

Resilience. A strong region requires communities, infrastructure and systems that can thrive in the face of uncertain future economic, fiscal and environmental shifts.

Inclusive Growth. Long-term regional economic prosperity requires increased economic opportunity and improved quality of life for all residents.

Prioritized Investment. Achieving regional goals in an era of limited resources requires coordinated prioritization of investments across sectors, including infrastructure, land use and economy.

Each principle supports the others. *Resilience* will depend on robust investments and planning that make sense both now and in a variety of plausible future scenarios. In turn, achieving resilience will require *Inclusive Growth* to provide opportunity and strong quality of life for all of the region's residents, enabling their full participation in the economy and civic life. The need for inclusive growth will likewise necessitate *Prioritized Investment* that ensures our resources are carefully targeted to achieve local and regional goals while broadening economic participation to increase and sustain prosperity. The three principles will inform every ON TO 2050 recommendation, cutting across CMAP's core areas of regional economy, land use, natural system, governance and mobility.

CMAP continues analyzing current conditions and trends, working with stakeholders to research and develop strategies, and making substantial progress to identify regionally significant projects and develop the Financial Plan for Transportation, while completing the regional socioeconomic forecast of population, households and jobs.

3.3.4 Danville Area Transportation Study Plans

DATS' *2040 Long-Range Transportation Plan* was completed in 2015.[106] One of the goals in the LRTP is to increase accessibility and mobility. This goal can be accomplished by enhancing rail operations within the region by eliminating at-grade rail crossings.

Since rail is an essential component in the local economy and plays a key role in the Danville Metropolitan Area and Vermillion County transportation system, efforts should be made to continue coordination with the community that will further integrate interests into the transportation planning process. It is proposed that continuous study and analysis of potential projects that will reduce rail, vehicular and pedestrian conflicts at street crossings should continue.

The Danville area is served primarily by two railroad lines operated by Norfolk Southern and CSX Transportation, as well as a secondary line operated by Kankakee Beaverville Southern. The nearest rail passenger station is provided by Amtrak and is available at the Illinois Terminal in Champaign.

3.3.5 Decatur Urbanized Area Transportation Study Plans

The Decatur *Pathways 2040 Long-Range Transportation Plan* addresses potential transportation improvements to identify, plan and guide transportation decision making with the MPA.[107] One of the LRTP's primary goals is to preserve and maintain the existing transportation system to make the

[106] http://www.dats-il.com/

[107] http://www.decaturil.gov/

most efficient and cost-effective use of existing infrastructure investments. This goal can be accomplished by improving the efficiency of rail traffic through the MPA with an emphasis on reducing delays and increasing safety for the traveling public.

The presence of rail service is a key component of the MPA transportation system. Recent rail improvements in the MPA have focused on improving specific at-grade crossing locations. While no specific grade-separated facilities have been programed for construction at this time, several key projects were identified and recommended for consideration it the 2014 DATES Study.

In September 2013, the University of Illinois, in partnership with IDOT and several consultants, published a feasibility study that evaluated high-speed rail between Chicago and terminal cities St. Louis and Indianapolis, titled 220 MPH High-Speed Rail Preliminary Feasibility Study. A station in Decatur is listed in this study as being one among nine stops between Chicago and St. Louis. This study underscores the fact that planning efforts for high-speed rail continue to evolve in Illinois and potential service and construction work appears to be shifting from long-term to short-term expectations.

3.3.6 DeKalb/Sycamore Area Transportation Study Plans

DSATS' *2040 Long-Range Transportation Plan* was adopted in 2015.[108] DSATS' vision for the DeKalb/Sycamore area is to "develop a comprehensive, regionally coordinated, and integrated multi-modal transportation system that meets the needs and goals of the area's citizens." The LRTP did not propose any major rail capital investments through 2040, but recognized there is a discussion by Metra of extending Metra's UP West line from its current terminus in Elburn, Illinois, to DeKalb. An online petition that started in February 2017 to bring Metra service to DeKalb has slightly more than 1,000 supporters. It cites the limited options for traveling to the nearest train station, located 18 miles away in Elburn, for Northern Illinois University students and others without cars.

There are some opponents of the petition, who have stated that this addition would raise taxes in DeKalb County. There is also the issue of DeKalb County having to become part of the Regional Transportation Authority and contribute sales tax to the agency, making it a poor choice for the community. While the 2035 LRTP stated that the extension is not feasible in the short term, it is a long-term goal for the communities in the region.

3.3.7 Dubuque Metropolitan Area Transportation Study Plans

The Dubuque metropolitan area is a small metropolitan area located at the convergence of the state boundaries of Iowa, Illinois and Wisconsin. DMATS' *2045 Long-Range Transportation Plan* focuses on ensuring that the plan meets federal requirements and reflects current transportation issues and concerns of the DMATS.[109] One of DMATS' primary goals is to "improve the transportation system and promote efficient system management and operations."

In 2007, IDOT requested that Amtrak conduct a study to analyze the feasibility of initiating intercity passenger train service between Chicago, Rockford, Galena, and Dubuque, Iowa. This project aims to restore intercity passenger rail service from Chicago to Rockford by utilizing Metra and Union Pacific (UP) railroad tracks. Improvements include: upgrading tracks, capacity improvements, a layover facility, a UP/Metra connection, bridge improvements and new stations. Intercity passenger rail

[108] http://www.cityofdekalb.com/470/DSATS
[109] http://www.eciatrans.org/

service will be provided by Amtrak, with future plans to extend service to Dubuque, Iowa. Currently, the Chicago-Dubuque corridor project is on hold.

3.3.8 East-West Gateway Council of Governments

Connected2045 is the long-range transportation plan for the St. Louis region. Projects in the LRTP preserve and maintain the transportation system.[110] By prioritizing projects that keep the transportation system in a state of good repair over those that expand it, the plan recognizes the challenges posed by aging infrastructure and diminished transportation funding.

The LRTP highlighted one future strategy that relates to passenger rail. EWG plans to "Support the national High-Speed Intercity Passenger Rail Program, in particular the Chicago to St. Louis Route, and to ensure the adequacy of transit and other modal connections at stations." However, passenger rail projects have not been identified as investment priorities in the region, and are not earmarked for funding.

3.3.9 Kankakee Area Transportation Study Plans

KATS' *2040 Long-Range Transportation Plan* was adopted in May 2015 and amended in August 2017.[111] A primary goal of the LRTP is to increase accessibility and mobility by expanding the existing multimodal transportation network and enhancing the movement of freight along designated transportation corridors.

Future plans for passenger rail in Kankakee include the extension of commuter rail or transit service from the Metra Electric District terminal at University Park to a station in Kankakee County. A cooperative effort between several units of local government formed the Kankakee Area Commuter Transit (KACOT) task force. Assisted by IDOT, KACOT was formed in an attempt to study the feasibility of extending that service.

As a result of the task force, the River Valley Metro District began commuter service to the University Park Metra station. The service has become an important link for commuters to downtown Chicago. Metra, at one point, had an extension to Peotone in their LRTP; however, this vision has not moved forward. Currently, there are no intercity passenger rail projects identified as investment priorities in the region.

3.3.10 McLean County Regional Planning Commission Plans

MCRPC produced a draft of the *Long-Range Transportation Plan 2045* for public review in 2017.[112] The LRTP discussed the plan for Bloomington, Normal and McLean County in establishing a path towards keeping the transportation system functional, resilient and sustainable. The plan identified issues that include maintaining the transportation system, promoting system connectivity within and between various types of transportation, and securing stable and sustainable funding for needed work on the system. One of the goals regarding system preservation is to increase the utility of the transportation system to maintain its operational integrity, leverage previous investment and meet future needs.

MCRPC is also taking full advantage of the expansion in data availability. In the fall of 2017, MCRPC began the development of a database "dashboard," which includes data for transportation, housing,

[110] http://www.ewgateway.org/
[111] http://planning.k3county.net/
[112] http://www.mcplan.org/

demographics, economic indicators, local business and education. Currently, there are no proposed passenger rail investments planned for the study area.

3.3.11 Peoria/Pekin Urban Area Transportation Study Plans

PPUATS *2040 Long-Range Transportation Plan Envision HOI* identifies transportation assets and barriers in the tri-county area for all modes of transportation.[113] The LRTP's goals are divided into five themes:

- Safety, security and public health
- Efficient and resilient transportation system
- Accessibility and multimodal connectivity
- Environmental sustainability
- Economic vitality

While the region enjoys great access to rail infrastructure, rail service is limited strictly to freight. There is no passenger rail connecting Peoria to other urban centers, although this possibility and the possibility of rail service that connects St. Louis to Chicago (by way of Springfield, Peoria, Bloomington-Normal and Pontiac) were investigated when the LRTP was published. Currently, there are no plans to reestablish rail service in the Peoria area.

3.3.12 Rockford Metropolitan Agency for Planning Study Plans

RMAP produced *The Transportation for Tomorrow (2040): A Long-Range Transportation Plan for the Rockford Region in 2015.*[114] The overall goal of the LRTP is to promote a safe and efficient transportation system for people and goods in the RMAP MPA through a continuing, comprehensive cooperative process.

Freight and passenger rail transportation in the region is intricately linked and must be planned together. Much planning work has been devoted to rail transportation since the 2014 LRTP was completed in 2005. One of the highlights in the LRTP was the restoration of Amtrak service between Rockford and Chicago by utilizing Metra and UP's railroad tracks. At the time of the publishing of this document, the Chicago-Rockford corridor project is currently on hold.

3.3.13 South East Metropolitan Planning Organization Study Plans

The vision for the Southeast Missouri Metropolitan Planning Area is to provide and maintain a safe and efficient transportation network for all users that facilitates the responsible physical and economic development of the area.[115] SEMPO's overarching goals in the *2016-2040 Metropolitan Transportation Plan* include:

- Accessibility
- Economic development
- Environmental protection
- Funding

[113] http://www.tricountyrpc.org/

[114] http://rmapil.org/lrtp/

[115] http://southeastmpo.org/

- Land-use coordination
- Public involvement
- Regionalism
- Safety
- System management

SEMPO has two Class 1 rail lines in the planning area and one switching railroad; however, the LRTP has no plans for passenger rail in the MPA.

3.3.14 Southern Illinois Metropolitan Planning Organization Study Plans

SIMPO's first LRTP, *2040 Long-Range Transportation Plan, An Urban Beginning: Moving Forward Together,* was produced in 2015.[116] The MPO's regional values include:

- Support economic vitality and quality of life
- Encourage transportation choices
- Maintain a safe transportation system
- Preserve the existing system
- Foster coordination throughout the MPA

Intercity passenger rail service is provided in the region by an Amtrak station in downtown Carbondale and is served by three routes: the Illini Service, the Saluki, and the City of New Orleans. Planned long-range transportation projects in the LRTP include the multimodal transfer station in downtown Carbondale. The proposed multimodal station would expand Carbondale's Amtrak facility, include a two-story parking garage, bicycle storage with racks, off-street capacity to accommodate buses and space for retail services. The project name has also been changed from "Carbondale Multimodal Station" to "Southern Illinois Multimodal Station" because the facility is intended to serve the entire region.

The city of Carbondale applied for a TIGER grant in 2016 to fund the project, but was denied; however, the city has reapplied for funding under the 2017 TIGER program.

3.3.15 Springfield Area Transportation Study Plans

SATS' *2040 Long-Range Transportation Plan* identifies the planning efforts of the many rail lines in the Springfield area and the long-term planning efforts for the region. A primary goal of SATS' LRTP is "to provide a safe and secure transportation system for all travelers in the MPA."[117]

Amtrak offers direct passenger train service for the Springfield area along the Chicago-St. Louis corridor. Five trains operate daily, and Amtrak also provides a daily connecting bus from the Springfield Amtrak station to the Galesburg Amtrak station for passengers traveling to destinations west of Illinois on the California Zephyr and Southwest Chief long-distance routes.

The rail projects included in the Committed and Planned Illustrative Project list of the LRTP are largely a result of two major undertakings, the Illinois High-Speed Rail (HSR) Chicago to St. Louis project and the Springfield Rail Improvements Project.

[116] http://greateregypt.org/
[117] http://co.sangamon.il.us/

In 2017, IDOT will continue construction of sidings, making improvements to existing bridges and structures, installing new roadway surfaces, and improving at-grade rail crossings. Upgrades to the Springfield station, including access and parking lot improvements, are in the final design stage.

The current HSR program includes improvements along the existing Amtrak *Lincoln Service* route on 3rd street; these enhancements are designed to increase safety and accommodate the operation of higher-speed passenger trains.

The city of Springfield has taken the lead on the Springfield Consolidation Plan, also known as the 10th Street Improvement Plan. The plan, supported by IDOT, provides for the relocation of all Third Street rail traffic to 10th Street sometime in the future.

3.3.16 Stateline Area Transportation Study Plans

SLAT's *2040 Long-Range Transportation Plan* goals include:

- Economic vitality
- System preservation
- Mobility and accessibility
- Safety and security
- Environmental awareness
- Healthy neighborhoods
- Land use integration

The SLATS' MPA does not have any commuter rail service within the planning boundary; however, a Metra rail station is located nearby in Harvard, Illinois. While rail freight is discussed in the LRTP, it does not include proposed passenger rail projects.

In an effort to strengthen regional planning efforts within SLATS, it is recommended that SLATS maintain an ongoing coordination with WiSDOT and IDOT to develop performance measures that will be used to evaluate progress toward implementing the region's vision. It is also important that consistent measures be developed between the two state DOTs.[118]

3.4 Station Improvements

IDOT continues to move forward with station planning and construction for communities along the Chicago to St. Louis corridor. Funded through the Federal Railroad Administration's (FRA) High-Speed Intercity Passenger (HSIPR) program, the Chicago-St. Louis High Speed Rail project includes provisions for upgraded station facilities with improved passenger safety and convenience, better transportation connectivity, technology enhancements, and promoting economic development. Support from communities has been strong, and IDOT looks forward to partnering with towns along the route to bring increased station amenities for passengers. Station improvements in Illinois include:

Joliet – The city received a discretionary grant from IDOT to construct a multimodal facility and to make safety improvements at this station. Construction is being led by the city and is ongoing.

[118] http://www.beloitwi.gov/

Dwight – A new station was built south of the current location on property owned by the village. The station officially opened for service on October 28, 2016, and is located at 401 S. Columbia St., Dwight, Illinois.

Pontiac – The new station in historic downtown Pontiac opened to Amtrak service on June 6, 2017. Funding for the $2.65 million project was part of a federal grant administered by IDOT to introduce better performance and higher speeds on the UP between Chicago and St. Louis.

Normal – A new multimodal facility, funded outside of this project with a Transportation Investments Generating Economic Recovery (TIGER) grant received by the town, was opened in July 2012. Construction on the second platform has been completed. The platform will be put into service once Amtrak and the city reach an agreement on the lease. Negotiations are in progress and the expectation is that the lease will be finalized in early 2018.

Lincoln – The renovated station and facilities is complete and went into service in November 2017.

Springfield – ADA improvements to the current station are scheduled to begin in early 2018 and will be completed in 2018. The improvements will be to the bathrooms in the station and to the parking lot.

Carlinville – The new Carlinville station opened in November 2017. Station features include a heat and air-conditioned waiting room, free Wi-Fi, and parking for vehicles and bicycles.

Alton – The new regional multimodal station opened to Amtrak service September 13, 2017. The 8,000-square-foot facility provides connections to the eight bus bays for the new Madison County Transit transfer hub. Other features include free Wi-Fi, 227 parking spaces, 12 bike lockers, six bike racks and accommodations for customers with disabilities.

3.4.1 New Locomotives

In addition to station improvements throughout the state, new federally funded locomotives are expected to help passenger trains travel faster through the Midwest states of Illinois, Michigan, Missouri and Wisconsin.

A total of 33 locomotives will be delivered by January 2018, with California and Washington receiving additional units as well. Approximately 2.6 million passengers ride Amtrak in the Midwest each year, with more than a million of those riders in the state of Illinois.[119]

Illinois has received 12 locomotives that are being put into revenue service on Amtrak routes in Michigan, Missouri, and Wisconsin, including the Illinois Zephyr/Carl Sandburg service between Chicago and Quincy, the Hiawatha service between Chicago and Milwaukee, the Saluki/Illini service between Chicago and Carbondale, and the Lincoln service between Chicago and St. Louis.

The new fleet of locomotives, which will be owned by the states and leased to Amtrak, is branded "Amtrak Midwest."

Purchased through $216.5 million in federal funds, the locomotives are part of the effort to improve passenger rail service in Illinois and the Midwest.

[119] https://www2.illinois.gov/IISNews/14727-IDOT_Anncs_New_Locomotives_Serving_Amtrak_Riders_.pdf

3.5 Passenger Rail Capital Projects

Table 3.5.1 details passenger rail capital projects from FY 2010 – 2023.

Table 3.5-1 Passenger Rail Capital Projects[120]

District 1

Passenger Rail *Counties Affected: Cook, Lake, Will* *Improvement*	*FY First*	*FY Last*	*Est. Cost*	*Action Item(s)*
Chicago – St. Louis Corridor – Includes all projects under the development of the high-speed rail Chicago to St. Louis corridor (except the Midwest Next Generation passenger equipment, value $268,201,084, all federal)	2010	2020	$1,631,306,111	CMA, TS
Joliet – Joliet Regional Multimodal Transportation Center	2011	2018	$51,711,140	CMA, ED, ES, FM, TO, TS
Lake Forest – Remove two at-grade pedestrian crossings at the Lake Forest MD-N Metra station	2015	2017	$2,000,097	PM, TS
Passenger Rail Development *Counties Affected: Cook, DuPage, Kane* *Improvement*	*FY First*	*FY Last*	*Est. Cost*	*Action Item(s)*
Chicago – Quad Cities – Iowa City Corridor – Passenger Rail Service Development	2010	2023	$255,000,000	CMA, TS

District 2

Passenger Rail Development *Counties Affected: Cook, DuPage, Kane* *Improvement*	*FY First*	*FY Last*	*Est. Cost*	*Action Item(s)*
Chicago – Quad Cities – Iowa City Corridor – Passenger Rail Service Development	2010	2023	$223,000,000	CMA, TS

District 3

Passenger Rail *Counties Affected: Grundy, Livingston* *Improvement*	*FY First*	*FY Last*	*Est. Cost*	*Action Item(s)*
Chicago – St. Louis High Speed Rail Corridor – Includes all projects under the development of the HSR Chicago to St. Louis corridor (except the Midwest Next Generation passenger equipment)	2010	2020	$1,631,306,111	CMA, TS

[120] IDOT FY 2018-2023 Proposed Multi-Modal Improvement Program

Table 3.5.1 Passenger Rail Capital Projects (Continued)

District 3

Passenger Rail Development *Counties Affected: Bureau, DeKalb, LaSalle* *Improvement*	*FY First*	*FY Last*	*Est. Cost*	*Action Item(s)*
Chicago – Quad Cities – Iowa City Corridor – Passenger Rail Service Development	2010	2023	$223,000,000	CMA, TS

District 5

Passenger Rail *Counties Affected: McLean* *Improvement*	*FY First*	*FY Last*	*Est. Cost*	*Action Item(s)*
Chicago – St. Louis High Speed Rail Corridor – Includes all projects under the development of the HSR Chicago to St. Louis corridor (except the Midwest Next Generation passenger equipment)	2010	2020	$1,631,306,111	CMA, TS

District 6

Passenger Rail *Counties Affected: Logan, Macoupin, Sangamon* *Improvement*	*FY First*	*FY Last*	*Est. Cost*	*Action Item(s)*
Chicago – St. Louis High Speed Rail Corridor – Includes all projects under the development of the HSR Chicago to St. Louis corridor (except the Midwest Next Generation passenger equipment)	2010	2020	$1,631,306,111	CMA, TS

District 8

Passenger Rail *Counties Affected: Jersey, Madison, St. Clair* *Improvement*	*FY First*	*FY Last*	*Est. Cost*	*Action Item(s)*
Chicago – St. Louis High Speed Rail Corridor – Includes all projects under the development of the HSR Chicago to St. Louis corridor (except the Midwest Next Generation passenger equipment)	2010	2020	$1,631,306,111	CMA, TS

3.6 Commuter Rail Capital Projects

3.6.1 Metra Commuter Rail

Metra is one of the largest and most complex commuter rail systems in North America, servicing Cook, DuPage, Will, Lake, Kane and McHenry counties in northeastern Illinois. The agency provides service to and from downtown Chicago with 241 stations over 11 routes totaling nearly 500 route miles and approximately 1,200 miles of track. Metra oversees all commuter rail operations in the 3,700-square-mile northeastern Illinois region, with responsibility for day-to-day operations, fare and service levels, capital improvements, and planning.

In 2017, Metra and its partners announced plans to begin projects that represent $216 million in infrastructure investments. In addition to major projects to replace aging bridges on the UP North and Milwaukee West lines and construct new track segments on the UP-West Line, the 2017 construction program also includes numerous smaller infrastructure improvement projects distributed across Metra's 11 lines. These projects will ensure Metra customers continue to enjoy safe and reliable service. Figures 3.6.1 and 3.6.2 include a map and description of all planned projects for 2017.

Figure 3.6.1 Metra Planned Projects 2017

Figure 3.6.2 Metra Planned Projects 2017

(Source: https://metrarail.com/about-metra/newsroom/metra-launches-2017-construction-program)

3.6.2 Metra Station Improvements

Heritage Corridor Line Improvements

On the Heritage Corridor Line, Metra plans to begin construction of a new station in Romeoville and is contributing to the costs of replacing furnaces and condensing units at the Lockport Station.

Metra Electric Line

Along the Metra Electric Line, the McCormick Place Station will receive upgrades to the platform, waiting areas, signage and lighting. A $5.5 million project that started in 2016 to replace platforms, the elevator, stairs and other facilities at the Calumet Station will continue, and a $4.8 million project to replace the street-level depot, stairways and the north platform at the Hazel Crest Station will get underway. The Hazel Crest project also calls for the addition of an elevator on the north end of the station and platform repairs. Metra workers will also finish rehabilitation and repair work started in 2016 at the Kensington/115th Street, West Pullman and Millennium stations. Rehabilitation work will start this year at the 27th Street, 147th Street, Riverdale, Harvey and University Park stations. Projects may include repair or replacement of station elements such as platform deck boards, warming houses, staircases and lighting.[121]

Milwaukee North Line

On the **Milwaukee North Line,** construction is set to begin on a $1.2 million project to add a 68-space parking lot at the Grayland Station and on a $7.3 million project to replace and upgrade the Healy Station. The village of Northbrook will begin a $325,000 station makeover project, with new roof shingles, windows, doors and floors and repairs to the concrete around the station. The villages of Golf, Deerfield and Glenview will also oversee smaller maintenance projects at four stations (Golf, Deerfield, Glenview and North Glenview). Metra crews will make platform repairs at the Lake Cook Road Station and replace the tactile edging and extend the platforms at the Lake Forest Station.

UP North Line

On the **UP-North Line**, the outbound platform will be replaced at the Kenilworth Station and the flooring will be replaced at the Glencoe Station. The city of Lake Forest also plans to complete a comprehensive restoration of the station facility, started in 2016, by the first quarter of 2018.

UP West Line

On the **UP-West Line,** the Winfield Station will undergo platform repair work.

3.6.3 Metra Track Improvements

Metra and its railroad partners plan to replace approximately 57,000 railroad ties in 2017 as part of the following track improvement projects:

BNSF will replace about 8,000 ties on one of its main tracks between Lisle and Aurora. In addition, BNSF will replace switches and switch heaters in Cicero and Naperville. Platform ties will be replaced at the Hinsdale, Brookfield, Fairview Avenue and Stone Avenue stations. Workers will replace rail on track curves located just east of Chicago Union Station.

[121] www.metrarail.com

Metra will replace 10,000 ties from Randall Road in Elgin to Schaumburg on the **Milwaukee West Line.** This project is set to start on April 15.

On the **Metra Electric Line**, Metra forces will replace 11,000 ties from 121st Street to University Park. The work is scheduled to begin in late July. Metra will also make various track repairs in Metra-controlled rail yards throughout the system. Work in the yards will begin in the fall.

On the **UP-Northwest Line**, UP forces will replace six diamond crossovers at the Deval interlocking between the Des Plaines and Cumberland stations. The work is planned to take place over a three-day period beginning April 27.

On the **UP-West Line**, about eight miles of third track will be added along the only two remaining double-track segments. The third track will be constructed through two separate projects that together will cost more than $100 million. The first project includes construction of 1.8 miles of new track from the Vale interlocking in River Forest (just east of the Des Plaines River) to 25th Avenue in Melrose Park. The second project includes construction of 6.1 miles of new track from Kress Road in West Chicago to Peck Road in Geneva. Construction on both projects is expected to begin in 2017 and continue through 2019. Project funding will be provided by Union Pacific and Metra. UP will also replace up to 8,000 ties across its three lines as part of its general maintenance program.

3.6.4 Metra Bridge Improvements

Improvements are planned for 21 bridges across the Metra system and include projects on the BNSF, Milwaukee West, Rock Island, UP North and UP Northwest lines.

BNSF will replace panels on the Route 59 bridge deck in Naperville and bridge clips at four locations between Albany Avenue and Cermak Road in Chicago.

Construction is planned to begin in the fall along the **Milwaukee West Line** on a $34 million project to replace a 130-year-old single-track bridge over the Fox River in Elgin with a double-track bridge. A portion of the project is being funded through a $14 million federal Transportation Investment Generating Economic Recovery (TIGER) grant. The remainder of the funding is being provided by Metra and Canadian Pacific.

Along the **Rock Island Line,** Metra will rehabilitate the bridges at 37th and 39th streets. At 51st Street, Metra will remove six bays of an existing steel bridge, repair three bays of the same bridge and build a new concrete access road bridge. The bridge at 57th Street will be removed and replaced with a new concrete access road bridge.

On the **UP-North Line,** Metra will begin the next phase of a project to replace bridges on the North Side of Chicago. This phase includes 11 bridges for the inbound tracks over Grace, Irving Park, Berteau, Montrose, Sunnyside, Wilson, Leland, Lawrence, Winnemac, Foster and Balmoral. As part of this $45 million project, the new inbound half of the Ravenswood Station will be built. Work is expected to begin in late summer and continue for 30 months. The Deering Bridge, which crosses the north branch of the Chicago River north of the Clybourn Station on the UP-North Line, will also undergo rehabilitation as part of a $19.8 million project.

3.6.5 Metra Road Crossing Improvements

Metra and its railroad partners plan to make improvements to 29 road crossings system-wide in 2017, including:

BNSF will replace crossings at Ashland Avenue in LaGrange, Main Street in Downers Grove and Oak Park Avenue in Berwyn.

On the **Metra Electric Line,** crossings will be replaced at Stony Island Avenue, 70th Street, Yates Avenue, 87th Street and 91st Street on the South Chicago branch line. The Union Street crossing on the Blue Island branch line will also be replaced.

Metra will replace crossings at Wilson Road in Long Lake, Grand Avenue in Fox Lake and Oakton Street in Morton Grove along the **Milwaukee North Line**.

Grand Avenue in Elmwood Park, Scott Street in Franklin Park, Naperville Road in Bartlett and St. Charles Street in Elgin will also have the crossings replaced on the **Milwaukee West Line**.

On the **Rock Island Line,** crossings will be replaced at 99th and 102nd streets in Chicago, 167th Street in Oak Forest, and Wolf Road in Mokena on the mainline and at 111th Street in Chicago on the Beverly branch line.

Crossings at 95th Street and 52nd Avenue in Oak Lawn and 135th Street and Wolf Road in Orland Park will be replaced on the **South West Service Line.**

Replacement work will also be performed on the **UP-Northwest Line** at Dunton Avenue in Arlington Heights, Baldwin Road in Inverness and Pearson Street in Des Plaines.

3.6.6 Metra Signal/Communications Improvements

As railroads across the U.S. prepare for the federally mandated implementation of Positive Train Control (PTC) safety systems, Metra crews are actively upgrading signal and communications systems on each of the lines it controls for compatibility with PTC. Similar work is also being performed across the lines controlled and operated by our freight partners.[115]

Metra's planned signal and communications infrastructure work for 2017 includes[122]:

- **Metra Electric Line** – Continue work on a $9.3 million project to upgrade the signal system at the 11th Place interlocking.
- **Milwaukee North Line** – Begin a $13 million project to install a new signal system along 17.7 miles of track between Rondout and Fox Lake, including the construction of six new control points.
- **Milwaukee West Line**– Begin a $6 million project to install a new interlocking in Elgin as part of the Fox River Bridge replacement project.
- **Rock Island Line** – Continue a $14.75 million upgrade to the signal systems at four interlocking plants as well as signal systems at three road crossings in Blue Island.
- **South West Service Line** – Upgrade the signal system at an interlocking near 74th Street in Chicago at an estimated cost of $1 million.

[122] www.metrarail.com

Chapter 4: Proposed Freight Rail Improvements and Investments

4.1 Introduction

For more than a century, the rail network has been a critical component of the U.S. transportation system. The private rail industry owns the majority of the nation's rail infrastructure, and continues to make significant capital investments to ensure the network is in a state of good repair. The Illinois rail network is the second-largest in the country, and Illinois is the only state in which all seven Class I railroads operate. While capacity across the freight rail network today is generally sufficient to meet current needs, freight rail volume is expected to double by 2025, as road congestion and demand for goods continue to increase. This chapter describes the improvements and investments that address freight rail needs of the state.

4.2 Class I Railroads

Freight railroads, owners of the rail infrastructure, are responsible for the condition of the majority of the nation's track, bridges, and connections at ports and intermodal facilities, and proactively maintain, replace, and upgrade systems through maintenance and capital programs. The following section outlines Class I improvements/investments for the state of Illinois.

4.2.1 Burlington Northern Santa Fe Railway (BNSF)

Illinois is North America's rail hub. With nearly one-third of all U.S. and Canadian traffic flowing through the state, a safe and reliable network is critical to connecting products with key consumer markets. It is imperative that customer demands as well as the needs of communities near BNSF rail lines are met.

In 2016, BNSF's capital expenditure program in Illinois was approximately $250 million.[123] The largest components of the 2016 capital plan will be for maintenance projects and improvements to BNSF facilities. Maintenance projects include replacing and upgrading rail, rail ties and ballast, which are the main components of the tracks on which BNSF trains operate. The capital plan investments will be more in line with forecasted customer freight service demand. For 2017, BNSF's capital expenditure program for Illinois is approximately $190 million.

BNSF's maintenance program in Illinois includes nearly 850 miles of track surfacing and/or undercutting work, the replacement of approximately 30 miles of rail, and more than 280,000 ties, as well as signal upgrades for federally mandated Positive Train Control (PTC). BNSF's 2016 capital plan for Illinois also includes the continuation of a multi-year project initiated in 2015 at BNSF's Logistics Park Chicago facility. The project will add additional parking capacity, cranes and track for loading and unloading containers as well as arriving and departing trains. The 2016 plan follows more than $700 million invested by BNSF in its network in Illinois over the past three years.

[123] http://www.bnsf.com/

4.2.2 CSX Transportation (CSX)

CSX operates and maintains nearly 1,400 miles of track in Illinois and handles more than 2.5 million carloads of freight on the state's rail network. CSX facilities include major rail yards in Chicago (Barr) and East St. Louis, intermodal terminals in Bedford Park and Chicago (59th Street), and division headquarters in Chicago. CSX carries a variety of commodities important to the state's economy and way of life, including consumer products, automobiles, food and agriculture products, and coal. Major commodities produced or consumed within the state include containerized consumer goods, feed grain, glass manufacturing chemicals, petroleum products and sweeteners.

In 2015, CSX invested more than $32.2 million in its Illinois network,[124] including:

CREATE – CREATE is a partnership between the U.S. DOT, Illinois, Chicago, Metra, Amtrak, and the nation's freight railroads, including CSX. CREATE will reduce train delays and congestion by focusing rail traffic on five rail corridors in Chicago.

CSX and the Illinois Community – In partnership with state and local economic development agencies, Illinois businesses invested approximately $2.5 million in new or expanded rail-served facilities on CSX or its connecting regional and short lines in 2015. These investments will generate new jobs at those businesses.

Industrial Rail Sites – CSX has designated the John Kelsey Business and Technology Park in Greenville and the Tuscola Industrial Rail Park in Tuscola as "Select Sites" – rail-served, ready-to-build locations for industrial development and expansion. The "Select Site" program is part of CSX's network-wide economic development initiative.

Trees for Tracks Program – CSX sponsored a "Trees for Tracks" service day in Chicago. Through this program, CSX delivered on its promise to plant 42,000 trees, two for each mile of track in its 23-state service network.

CSX is working to develop a state-of-the-art intermodal freight terminal in the Village of Crete, Illinois. The proposed CSX terminal will be different from any other intermodal terminal in the region. It will use the latest freight-handling technology and sustainable design standards.

The terminal will improve highway safety by diverting freight movement by truck to trains, which are capable of moving freight more efficiently and with less environmental impact than trucks. The terminal will also decrease shipping costs for existing manufacturers and distributors in the area, creating a competitive advantage for local businesses. It will also add vital capacity to the national transportation infrastructure that will benefit the residents of Crete, the state of Illinois and the entire nation.

4.2.3 Union Pacific Railroad (UP)

Union Pacific Railroad (UP) connects 23 states west of Chicago and New Orleans, providing a critical link in the global supply chain. UP's targeted investments fund projects that strengthen railroad tracks, increase safety and minimize delays as trains travel through communities across Illinois.

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[124] https://www.csx.com/index.cfm/library/files/about-us/state-information/illinois/

This year's planned $85 million capital expenditure in Illinois is part of an ongoing investment strategy.[125] From 2012-2016, UP invested approximately $566 million in its network and operations to strengthen Illinois' transportation infrastructure. UP's investment plan funds a range of initiatives, including $70 million to maintain railroad track and $10 million to maintain bridges. Key projects planned in 2017 include:

Rail Line Replacement – $6 million investment in the rail line between Elburn and Fulton to replace 16 miles of rail.

Railroad Tie Replacement and Installation of Rock Ballast – $7 million investment in the rail line between East St. Louis and Chester to replace 59,594 railroad ties and install 27,497 tons of rock ballast.

High-Speed Rail – UP is the owner of the track (right-of-way) and operates rail freight services on the Chicago-St. Louis High-Speed Rail corridor (215 miles between Joliet and Godfrey; 29 miles between Godfrey and East St. Louis).

Addition of Third Line to Geneva Subdivision – UP will collaborate with Metra to break ground on a $100 million project to add a third main line to the Geneva Subdivision, which serves both passenger and freight rail.[126]

4.2.4 Norfolk Southern (NS)

As the nation's largest rail center, Chicago plays a vital role in Norfolk Southern's rail network. NS operates six rail yards in Chicago, moving more than 100 trains daily to connect Chicago and Illinois businesses to markets throughout the nation. In Illinois, NS employs 1,450 people and operates a network of 1,256 rail miles.[127] In 2015, some of the major projects to improve the Midwest and Chicago gateways included:

Chicago Area:

Crossover projects: Chicago – Butler, Indiana

CREATE projects: Track and signal improvements along Western Avenue

Expansions and improvements at three intermodal terminals: Calumet, 47th Street, and 63rd Street

Yard improvements: Expand Colehour Yard and build connecting track to Canadian National (CN)

Kankakee:

Expand yard, construct crossovers and upgrade sidings near Reddick, Illinois, and Schneider, Indiana

In February 2017, NS opened a new locomotive maintenance and repair facility in Chicago to enhance operational efficiency for trains moving through the nation's largest rail hub. The $9.5 million investment expands the railroad's locomotive repair capabilities in the Chicago region. In addition to the new facility, NS in Chicago operates a locomotive repair shop at its Calumet Yard intermodal facility and mobile rapid-response crews inspect and service outbound locomotives. The

[125] https://www.up.com/media/releases/170530-illinois-investment.htm

[126] https://www.up.com/cs/groups/public/@uprr/@corprel/documents/up_pdf_nativedocs/pdf_illinois_usguide.pdf

[127] http://www.nscorp.com/content/dam/nscorp/get-to-know-ns/about-ns/state-fact-sheets/il-state-fact-sheet.pdf

investment will provide timely and reliable service and will enable NS to move goods more efficiently across the Chicago gateway and benefit intermodal customers shipping freight to east coast markets.

4.2.5 Canadian National (CN)

CN's Illinois network serves some of the state's biggest cities with rail yards and operations in Carbondale, Decatur, Springfield, Rockford, near Peoria, and suburban St. Louis. CN also hosts Amtrak intercity passenger trains in Illinois and Metra commuter trains in suburban Chicago, and owns 37 miles of track along the Chicago to St. Louis high speed rail corridor between Joliet and Chicago. Capital investment data is for 2017 is unavailable for CN.

4.2.6 Canadian Pacific Railway (CP)

Capital investment data for 2017 is unavailable for CP Railway.

4.2.7 Kansas City Southern Railway (KCS)

Capital investment data for 2017 is unavailable for KCS.

4.3 Chicago Region Environmental and Transportation Efficiency Program (CREATE)

The CREATE program is a 70-project, $4.4 billion program designed to improve the efficiency and effectiveness of freight, commuter and intercity passenger rail and to reduce highway delay in the Chicago region. Chicago is the nation's busiest rail freight gateway and the world's third-largest intermodal port. With one-quarter of our nation's rail-shipped goods and products moving to, from or through Chicago, the area's rail network is crucial to the local, regional and national economy. A total of $37 million is programmed for FY 2018-2023.

CREATE is the first program for which so many competing railroads – six of the seven Class I railroads operating in North America – have come together as partners to increase the efficiency of an urban rail network. This innovative public-private partnership is funded through the city of Chicago, state of Illinois, U.S. Department of Transportation, and the freight, passenger, and commuter railroads serving the Chicago region. As of October, 2017, 29 CREATE projects have been completed, five are under construction, four are in the final design phase, 13 are in the environmental review stage, and 19 remain unfunded. An estimated $2 billion is needed to complete the full program of projects. Table 4.1 details CREATE capital projects for FY 2015-2023.

The following is a list of CREATE capital project summaries:

4.3.1 CREATE Projects P2, P3, EW2, GS19: 75th Street Corridor Improvement Projects (CIP)

The 75th Street CIP is the largest project in the CREATE program. The project will address conflicts between CSX Transportation, Belt Railway of Chicago (BRC), Union Pacific (UP), Norfolk Southern (NS) and Metra. The approach will consider reconfiguring the BRC main tracks between the Dan Ryan Expressway and Belt Junction, where four freight railroads conflict with each other and Metra's Southwest Service operations (Project EW2). The project will consider constructing a second main track for Metra's Southwest Service line from near Wrightwood Station to Western Avenue (Project P2). The project will consider reconfiguring and building a third BRC main track, and constructing a flyover to connect to Metra South West Service to the Rock Island Line in the vicinity of 74th and

Normal and 75th and Parnell (Projects EW2 and P2). This project will consider constructing a bridge that significantly reduces conflicts between CSX and BRC, Metra, and NS (Project P3). The project will also consider constructing a road-rail grade separation of 71st Street and the CSX freight line (Project GS19). Associated signals, tracks, crossovers and bridge work are included in the project.

4.3.2 CREATE Project WA4: BNSF Connection – Western Avenue to Ash Street

This project consists of constructing new track from 31st Street to California Avenue on the BNSF Chillicothe Subdivision and along Western Avenue from 21st Street to California Avenue on the BNSF Chicago Subdivision. Included will be rehabilitation of up to six bridges over city streets and over the Chicago Sanitary and Ship Canal, installation of crossover switches between the BNSF Chillicothe Subdivision and the CN Freeport Subdivision, installation of crossovers between the new track and CSX Blue Island Subdivision, and installation of centralized traffic control signalization over the length of the project. The overall cost of the improvements is $46.7 million, which includes $22.8 million in funds from the previous capital program and $23.9 million in railroad funds.

4.3.3 CREATE Project GS16: Illinois Route 19 & Canadian Pacific Railroad Grade Separation

This project includes a grade separation of Illinois Route 19 (Irving Park Road) at the Canadian Pacific Railroad (CP) in Bensenville. Included is pavement reconstruction and widening, improved intersection geometry, additional auxiliary lanes, drainage system improvements, and signal modernization. The most significant component of the improvement includes lowering Irving Park Road and raising the CP viaduct to provide improved vertical roadway clearance. The structure is proposed as a 131-foot single-span bridge with closed abutments. Other project components include construction of retaining walls along the raised railroad alignment, culverts to convey the relocated Bensenville Ditch, a 72-inch storm sewer to improve drainage and provide detention, and additional turning lanes at the intersection. The overall cost of the improvements is $64 million, which is fully funded by the previous capital program.

4.3.4 CREATE Project B1: CP Double & IHB Connection – Franklin Park

Currently, there are freight trains passing through the Bensenville Yard in order to access the IHB main line track. With this improvement, 12 daily freight trains will be able to bypass the Canadian Pacific Railroad and the Bensenville Yard, both of which exist on Metra tracks. This project will reduce the number of freight trains within the yard and reduce delays at the nearby at-grade crossing. This improvement will relieve continuous delays to Metra trains due to conflicts with slow-moving freight trains entering the yard. The overall cost of the improvements is $19.3 million, which includes $16 million in railroad funds and $3.3 million from the Illinois Department of Transportation.

4.3.5 CREATE Project WA2: TCS – Blue Island Sub-Chicago CSX

This project will install a new bi-directional computerized Traffic Control System (TCS) on a seven-mile segment of CSX railroad, which is located along the CREATE Western Avenue Corridor. Approximately 15 hand-thrown switches will be upgraded to power switches. At CSX's 59th Street Yard, signals and switches will also be upgraded to improve flexibility in mainline operations. One of the CSX mainlines will also be upgraded, between 51st Street and 71st Street, from the existing 10 mph maximum speed to allow 25 mph operations. The project will also install a new eastward

connection to the Belt Railway from a CSX mainline. Bridges at 35th Street and 36th Street will be reconstructed to accommodate the proposed increase in speed. All of this work will be within existing railroad right-of-way. The overall cost of the improvements is $46 million, which is a combination of state, railroad and federal funds.

4.3.6 CREATE Project WA3: Ashland Avenue & CJ Mains Chicago

This project will increase train speeds and add capacity along the NS mainlines in the project area. Currently, most trains take up to one hour to traverse the limits of this project, given the hand-thrown switches. With the completion of this project, trains are expected to pass through this 5.2 mile segment in as little as 10 minutes. Improved signalization will relieve chronic congestion of Metra, Amtrak and freight trains at Control Point 518, which is located south of Union Station. The overall cost of the improvements is $28 million, which is a combination of state, railroad and federal funds.

Table 4.3-1 CREATE capital project list[128]

Chicago Region Environmental and Transportation Efficiency Program (CREATE) *Counties Affected: Cook*				
Improvement	*FY First*	*FY Last*	*Est. Cost*	*Action Item(s)*
Project B1 – CP to IHB connection in Franklin Park	2015	2017	$7,676,623	FM, PM, TO, TS
Project B9 – Argo connection upgrade	2018	2020	$28,600,000	FM, PM, TO, TS
Project EW1 – Clearing Yard mains (Bedford Park / Bridgeview / Chicago / Summit)	2018	2019	$57,800,000	FM, PM, TO, TS
Project EW2 – 80th Street improvements (Chicago)	2018	2023	$6,822,268	FM, PM, TO, TS
Project EW3 – Pullman Junction Upgrade (Chicago)	2018	2020	$28,787,255	FM, PM, TO, TS
Project GS3A – Morgan Street / Pershing Road (Chicago)	2016	2021	$200,000	FM, PM, TO, TS
Project GS9 – Archer Avenue / Kenton Avenue (Chicago)	2018	2023	$6,050,000	FM, PM, TO, TS
Project GS11 – Columbus Avenue / Maplewood Avenue (Chicago)	2018	2023	$6,050,000	FM, PM, TO, TS
Project GS16 – Grade separation of Ill. Rt. 19 at CN railroad (Bensenville)	2018	2019	$65,066,790	FM, PM, TO, TS
Project GS19 – 71st Street / Bell Avenue (Chicago)	2018	2023	$8,497,885	FM, PM, TO, TS
Project P2 – 74th Street flyover (Chicago)	2018	2020	$813,952	PM, TO, TS
Project P3 – 75th Street flyover (Chicago)	2018	2020	$77,808,014	PM, TO, TS
Project P4: Grand Crossing connection (Chicago)	2016	2021	$2,347,262	PM, TO, TS
Project P6 – Canal Flyover (Summit)	2018	2020	$2,000,000	ES, TO, TS

[128] IDOT Office of Intermodal Project Implementation

Table 4.3.1 CREATE capital project list (Continued)

Improvement	*FY First*	*FY Last*	*Est. Cost*	*Action Item(s)*
Project WA1 – Ogden Junction upgrade (Chicago)	2018	2020	$4,789,209	FM, PM, TO, TS
Project WA3 – Ashland Avenue & CJ Mains (Chicago)	2018	2019	$21,389,576	FM, PM, TO, TS
Project WA4 – BNSF Connection – Western Avenue to Ash Street (Chicago)	2018	2019	$25,683,819	FM, PM, TO, TS
Project WA7 – Brighton Park connection (Chicago)	2018	2020	$11,839,075	FM, PM, TO, TS
Project WA11 – Dolton interlocking upgrade (Chicago / Dolton / Riverdale)	2018	2023	$23,232,932	FM, PM, TO, TS

4.4 Other Projects Involving Freight Rail

4.4.1 Merchants Rail Bridge Replacement Project

The 127-year-old Merchants Rail Bridge spans the Mississippi River between St. Louis, Missouri, and Venice, Illinois, and is owned by the Terminal Railroad Association of St. Louis (TRRA). The Merchants Rail Bridge has rail connections to Amtrak's St. Louis Station and to six Class I railroads servicing BNSF Railway, CSX Transportation, Canadian National, Kansas City Southern, Norfolk Southern and Union Pacific.

The project includes removal and replacement of the three river-span trusses, seismically retrofitting the existing river piers, and improving the east approach. The new double-track structure will provide additional capacity for increased freight and passenger rail. The double track will also provide more reliable movements and reduce grade-crossing delays for motorists and emergency vehicles.

The Merchants Rail Bridge replacement is a model for public-private partnerships. TRRA will fund nearly two-thirds of the cost of the project, which will greatly improve freight movement in the nation. Once FASTLANE grant funding is secured, construction could start late 2017 and be completed as early as 2021. Project partners include:

- TRRA: $40 million, 20 percent
- Federal share FASTLANE: $75 million, 37 percent
- RRIF financing paid by TRRA: $85 million, 43 percent

4.5 Proposed Grade-Crossing Safety Improvements

It is the goal of the state of Illinois to carry out a highway-rail safety program that promotes a safe, economical and efficient railroad transportation system in the public interest. This goal is accomplished through efforts of both IDOT and the Illinois Commerce Commission (ICC).

Currently, there are 7,651 highway-rail grade crossings in Illinois, of which 765 are on state roads and 6,886 are on local roads.[129] Another 3,649 grade crossings are on private property, which is not under the jurisdiction of the state. There are also 140 bridge structures. There are 320 pedestrian grade crossings and 98 pedestrian grade-separated crossings (bridges) in Illinois. Illinois ranks

[129] ICC Crossing Safety Improvement Program FY 18-22

second to Texas in the total number of highway-rail crossings. Table 4.5.1 details the distribution of highway-rail crossings by type and position.

Table 4.5-1 Illinois Highway-Rail Crossings[130]

Crossing Type	Crossing Position	Crossings
Public Roadway	At-Grade	7,651
	RR Over	1,742
	RR Under	943
Pedestrian Pathway	At Grade	320
	RR Over	63
	RR Under	35
TOTAL		**10,754**

4.5.1 Railroad Crossing Safety Funding

The Grade Crossing Protection Fund (GCPF), appropriated to IDOT but administered by the ICC, was created by state law to assist local jurisdictions (counties, townships and municipalities) in paying for safety improvements at highway-railroad crossings on local roads and streets only. Assistance from the GCPF cannot be used for safety improvements at highway-rail crossings located on the state road or highway system; those improvements are paid for by IDOT. Beginning with Fiscal Year 2010, each month $3.25 million in state motor fuel tax receipts is transferred from the Motor Fuel Tax (MFT) fund to the GCPF. This amount provides the GCPF with $39 million annually to be used for safety improvements at highway-rail crossings on local roads and streets.[131]

The ICC's Rail Safety Section anticipates that a number of crossing safety improvement projects will be submitted for approval before the end of FY 2017.

4.5.2 Section 130 Rail Safety Program

The Railway-Highway Crossings (Title 23, U.S.C. Section 130) Program is a federal funding source used by IDOT for both state and local roads, and provides funds for the elimination of hazards at railway-highway crossings. The Section 130 program has been correlated with a significant decrease in fatalities at railway-highway grade crossings.

Funding for the Section 130 program in FY 2017 is $10.7 million, which is split 60 percent for local and 40 percent for state. Table 4.5.2 and Table 4.5.3 are IDOT's local and state FY 2017 Section 130 rail safety programs.

[130] Illinois Commerce Commission Crossing Safety Improvement Program FY 18-22

[131] ICC Crossing Safety Improvement Program FY 18-22

Table 4.5-2 FY 2017 local rail safety program[132]

IDOT Dist.	Local Public Agency	Street or Route	County	Joint w/ICC	Railroad	Crossing Inventory	Proposed Improvements
1	Village of Fox Lake	Jefferson Street	Lake		NIRC	386 450N	Flashing Light Signals and Gates
1	City of Elmhurst	St Charles Rd.	DuPage		CC	289 855A	Traffic Signal Interconnect
2	Forreston Twp.	Fork Creek Rd.	Ogle		CP DME	372 394T	Flashing Light Signals and Gates
3	Lyman Twp	TR 52A	Ford		CN/IC	289 330G	Flashing Light Signals and Gates
3	Lyman Twp.	TR 42C	Ford		CN/IC	289 335R	Flashing Light Signals and Gates
3	Drummer Twp.	TR 2	Ford		NS	474 990B	Flashing Light Signals and Gates
5	Brown Twp.	TR 12	Champaign		CN/IC	289 379R	Flashing Light Signals and Gates
5	Bellfower Twp.	TR 608	McLean	Y, GCPF	CN/IC	289 381S	Flashing Light Signals and Gates
5	Cheney's Grove Twp.	TR 383	McLean		NS	474 993W	Flashing Light Signals and Gates
5	Cheney's Grove Twp.	Sec. Line Rd. / TR 608	McLean		NS	474 994D	Flashing Light Signals and Gates
5	Arrowsmith Twp.	TR 546	McLean		NS	475 007K	Flashing Light Signals and Gates
5	Arrowsmith Twp.	T 514A	McLean		NS	475 013N	Flashing Light Signals and Gates
5	Village of Saybrook	East Street /Mun 6180	McLean		NS	474 998F	Flashing Light Signals and Gates
6	Divernon Twp.	Hogan Rd.	Sangamon		CN/IC	295 648U	Flashing Light Signals and Gates
6	Divernon Twp.	Montgomery Rd.	Montgomery		CN/IC	295 650V	Flashing Light Signals and Gates
6	Bois D'Arc Twp.	TR 218	Logan		CN/IC	295 541S	Flashing Light Signals and Gates
6	Mt. Pulaski Twp.	TR 176	Logan		CN/IC	295 544M	Flashing Light Signals and Gates
7	Casey Twp.	Oakland Rd. / N330th St.	Clark		CSX	546 360H	Flashing Light Signals and Gates
7	Ridge Twp.	1200 E. / TR 124	Shelby		UP	166 858E	Flashing Light Signals and Gates
7	RidgeTwp.	TR 160	Shelby	Y, GCPF	UP	166 853V	Flashing Light Signals and Gates
8	East Fork Twp.	Wortman Rd. / TR TR 77	Clinton		BNSF	098 027G	Flashing Light Signals and Gates

[132] Illinois Department of Transportation

Table 4.5.2 FY 2017 local rail safety program (Continued)

IDOT Dist.	Local Public Agency	Street or Route	County	Joint w/ICC	Railroad	Crossing Inventory	Proposed Improvements
9	Waltonville	Karma Lane / TR 353	Jefferson		BNSF	069 231C	Flashing Light Signals and Gates
9	Bald Hill Twp.	E. Academy Rd. / CH 26	Jefferson		UP	431 046D	Flashing Light Signals and Gates
9	Tamarowa Precinct Twp.	Parrot Rd. / TR 121	Perry		UP	430 967J	Flashing Light Signals and Gates
9	McClellen Twp.	E. Issell Rd.	Jefferson		UP	431 026S	Flashing Light Signals and Gates
9	McClellen Twp.	N. Nason Ln.	Jefferson		UP	431 023W	Flashing Light Signals and Gates

Table 4.5-3 FY 2017 state rail safety program

FY 2017 SAFETY PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT ONE

NO.	ROUTE NO.	SECTION	ECF	COUNTY	DOT/ARR	JOB NO. PROJECT NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	90% FED/10% RR	FUND TYPE
1	FAU 1519 (63rd St)	17R-1-P1	0.010	Cook	869 221F	C-91-091-17 ACRRS 1519(005)	RR117091	BRC	63rd St. East of Harlem Ave in Chicago	Install Cantilevers and surface	$400,000.00	MS50
2	FAP 330 (US 12/Graceland Ave)	17R-1-P2	n/a	Cook	173 912M	C-91-092-17 ACRRS 0330(077)	RR117092	UPRR	South of US 14 (Miner St) in Des Plaines, IL.	Install 2 pedestrian gates on westerly sidewalk and relocate 1 existing ped gate	$130,000.00	MS50
3	FAP 326 (IL 47/Main St)	17R-1-P3	n/a	Kane	175 009V	C-91-093-17 ACRRS 0326(097)	RR117093	UPRR	South of IL 38 in Elburn, IL	Install 4 pedestrian gates, 1 in each quadrant. Widen surface if necessary	$220,000.00	MS50
4	FAU 1332A (Oakton St)	17R-1-P4	n/a	Cook	173 905C	C-91-094-17 ACRRS 1332(016)	RR117094	UPRR	South of US 14 in Park Ridge, IL	Install 4 pedestrian gates on westerly sidewalk.	$200,000.00	MS50
5	FAU 2626 (S. Arlington Heights Rd)	17R-1-P5	n/a	Cook	176 923K	C-91-095-17 ACRRS 2626(005)	RR117095	UPRR	South of US 14 in Arlington Heights, IL.	Install new crossing controller	$25,000.00	MS50
6	FAP 375 (Touhy Ave)	17R-1-P6	0.137	Cook	386 381H	C-91-096-17 ACRRS 0375(001)	RR117096	METRA	East of Lehigh Ave in Niles, IL.	Install new cantilevers with signals and gates	$275,000.00	MS50
7	OR 5 (Blodgett Rd)	17R-1-P7	0.010	Will	004 391K	C-91-097-17 ACRRS 0197(141)	RR117097	BNSF	West of I-55 in Joliet, IL.	New bungalow, citcuitry, signals and gates	$400,000.00	MS50

* TIP NUMBER 13-16-0013

TOTAL =	$1,650,000.00

FY 2017 SAFETY PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT TWO -

NO.	ROUTE NO.	SECTION	ECF	COUNTY	DOT/ARR	JOB NO. PROJECT NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	90% FED/10% RR	FUND TYPE
1	FAP 308 (IL 84)	17R-2-P1	0.011	Carroll	069 430E	C-92-012-17 ACRRS-0308(047)	RR217012	BNSF	IL 84 South of Savanna	New circuitry, signals, gates, and cantilevers	$500,000.00	MS50

*

TOTAL =	$500,000.00

FY 2017 SAFETY PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT THREE

NO.	ROUTE NO.	SECTION	ECF	COUNTY	DOT/ARR	JOB NO. PROJECT NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	90% FED/10% RR	FUND TYPE
1	FAP 68 (IL 23)	17R-3-P1	0.019	DeKalb	069 754G	C-93-013-17 ACRRS 0068(115)	RR317013	BNSF	IL 23 at Waterman, IL	New Circuitry, Signals, Gates and Surface	$450,000.00	MS50
2	Various	17R-3-P2	n/a	Various	Various	C-93-014-17 ACRRS 000S(084)	RR317014	NSRR	Various Locations	Upgrade all incandescent lights to LED's at 15 grade crossings. 3 crossings in District 4	$80,000.00	MS50
										TOTAL =	$530,000.00	

Table 4.5.3 FY 2017 state rail safety program (Continued)

FY 2017 SAFETY PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT FOUR

NO.	ROUTE NO.	SECTION	ECF	COUNTY	DOT/ARR	JOB NO. PROJECT NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	90% FED/10% RR	FUND TYPE
1	FAP 702 (IL 117)	17R-4-P1	0.044	Woodford	475 096E	C-94-009-17 ACRRS-0702(050)	RR417009	NSRR	IL 117 (Eureka St) in Goodfield	Circuitry, Signals and Gates	$330,000.00	MS50
										TOTAL =	$330,000.00	

FY 2017 SAFETY PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT FIVE

NO.	ROUTE NO.	SECTION	ECF	COUNTY	DOT/ARR	JOB NO. PROJECT NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	90% FED/10% RR	FUND TYPE
1	FAS 1517 (US 150)	17R-5-P1	0.004	Dewitt	289 405D	C-95-010-17 ACRRS-1517(114)	RR517010	ICRR	US 150, North Grove St in Farmer City	New circuitry, signals and surface	$300,000.00	MS50
2	FAS 1343 (1950E)	17R-5-P2	0.0003	Vermillion	474 904C	C-95-011-17 ACRRS-1343(105)	RR517011	KBS RR	1950E (Cheneyville Rd) in Cheneyville	New circuitry & Signals	$80,000.00	MS50
										TOTAL =	$380,000.00	

FY 2017 SAFETY PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT SIX

NO.	ROUTE NO.	SECTION	ECF	COUNTY	DOT/ARR	JOB NO. PROJECT NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	90% FED/10% RR	FUND TYPE
1	FAP 304 (IL 96)	17R-6-P1		Pike	479 615T	C-96-015-17 ACRRS-0304(051)	RR617015	NSRR	Xing on IL 96 in Kinderhook, IL.	Install new circuitry, signals, gates and cantilevers	$505,940.00	MS50
2	Various Routes	17R-6-P2		Various	Various	C-96-014-17 ACRRS-000V(096)	RR617014	NSRR	11 NSRR Xing's in District 6	Upgrade all incandescent lights to LED's at all 11 Xings	$26,288.00	MS50
										TOTAL =	$532,228.00	

Table 4.5.3 FY 2017 state rail safety program (Continued)

FY 2017 SAFETY PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT SEVEN

NO.	ROUTE NO.	SECTION	ECF	COUNTY	DOT/ARR	JOB NO. PROJECT NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	90% FED/10% RR	FUND TYPE
1	SBI 242A (IL 242/Main St)	17R-7-P1		Wayne	724 741M	C-97-009-17 ACRRS-0242(115)	RR717009	NSRR	IL 242/Main Street in Wayne City, IL.	New bungalow, circuitry, signals, gates and cantilevers	$250,000.00	MS50
										TOTAL =	$250,000.00	

FY 2017 SAFETY PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATIOI
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT EIGHT

NO.	ROUTE NO.	SECTION	ECF	COUNTY	DOT/ARR	JOB NO. PROJECT NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	90% FED/10% RR	FUND TYPE
1	FAP 322 (US 51NB & SB)	17R-8-P1		Marion	724 800M & 724 801U	C-98-401-17 ACRRS-0322(101)	RR817401	NSRR	US 51 NB (Elm St), SB (Poplar St) in Centralia, IL	Install new Circuitry, signals, gates and cantilevers	$800,000.00	MS50
										TOTAL =	$800,000.00	

FY 2017 SAFETY PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT NINE

NO.	ROUTE NO.	SECTION	ECF	COUNTY	DOT/ARR	JOB NO. PROJECT NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	90% FED/10% RR	FUND TYPE
1*	FAP 849 (IL 142)	17R-9-P1		Jefferson	167 590M	C-99- -17 ACRRS 0849(015)	RR917	UPRR	IL 142 just East of Mount Vernon	Install new Circuitry, signals, gates and surface	$ 500,000.00	MS50
										TOTAL =	$ 500,000.00	

* Tip Number
S-16-03

4.5.3 Grade Crossing Surface Program

Since 2012, the Grade Crossing Surface program provides $1.5 million annually to improve those at-grade crossings on the state system that are categorized as rough, hazardous rail crossings in immediate need of repair. Table 4.5.4 is a list of grade crossing surface improvements for FY 2017.

Table 4.5-4 FY 2017 grade crossing surface program

FY 2017 SURFACE PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT ONE

NO.	ROUTE NO.	SECTION	COUNTY	DOT/ARR	JOB NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	100% STATE FUNDS
1	FAU 3902 (IL 31/Lake Street)	D1 RR SPI 2017-1	Kane	093 670X	C-91-000-17	RR117000	BJR	IL 31, Montgomery, IL	Surface	$175,000.00
2	FAU 3578 (Columbus Ave)	D1 RR SPI 2017-2	Cook	069 697V	C-91-000-17	RR117000	BRC	Chicago, IL.	Surface	$225,000.00
3	FAP 350(IL 50/Governor's Hwy)	D1 RR SPI 2017-3	Will	289 682M	C-91-000-17	RR117000	CNIC	University Park, IL.	Surface	$100,000.00
4	FAP 341 (IL 72/Higgins Rd)	D1 RR SPI 2017-4	Kane	174 552V	C-91-000-17	RR117000	UPRR	Gilberts, IL.	Surface	$100,000.00
									TOTAL =	$600,000.00

FY 2017 SURFACE PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT TWO

NO.	ROUTE NO.	SECTION	COUNTY	DOT/ARR	JOB NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	100% STATE FUNDS
1		17R-2-C1			C-92-000-17	RR217000			Surface	
									TOTAL =	$100,000.00

*

FY 2017 SURFACE PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT THREE

NO.	ROUTE NO.	SECTION	COUNTY	DOT/ARR	JOB NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	100% STATE FUNDS
1	FAS 298 (OR 66)	D3RRXING2017-01	Livingston	534 436C	C-93-015-17	RR317002	NSRR	RR Xing on Old Route 66 in Dwight, IL.	Surface	$20,000.00
2	FAP 326 (IL 47)	D3RRXING2017-05	Livingston	801 772X	C-93-089-17	RR317008	TP&W RR	RR Xing on IL 47 in Forest, IL.	Surface	$100,000.00
									TOTAL =	$120,000.00

Table 4.5.4 FY 2017 grade crossing surface program(Continued)

FY 2017 SURFACE PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT FOUR

NO.	ROUTE NO.	SECTION	COUNTY	DOT/ARR	JOB NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	100%STATE FUNDS
1	FAP 649 (IL 17)	D4 RR XING 2017-01	Marshall	603 989P	C-94-000-17	RR417000	IAIS	IL 17 in Sparland, IL	Surface	$100,000.00
									TOTAL =	$100,000.00

FY 2017 SURFACE PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT FIVE

NO.	ROUTE NO.	SECTION	COUNTY	DOT/ARR	JOB NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	100% STATE FUNDS
1	FAP 749 (IL 133)	D5 RR IMP 2017-1	Douglas	289 125B	C-95-000-17	RR517000	ICRR	IL 133 in Arcola	Surface	$50,000.00
2	FAP 709 (US 136)	D5 RR IMP 2017-2	McLean	289 393L	C-95-000-17	RR517000	ICRR	US 136 near Bellflower	Surface	$50,000.00
									TOTAL =	$100,000.00

FY 2017 SURFACE PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT SIX

NO.	ROUTE NO.	SECTION	COUNTY	DOT/ARR	JOB NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	100% STATE FUNDS
1	IL 127	D6-RRXING 2017-01	Montgomery	476 352W	C-96-016-17	RR617016	NSRR	RR Xing on IL 127 in Donnellson, IL.	Surface	$100,000.00
									TOTAL =	$100,000.00

FY 2017 SURFACE PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT SEVEN

NO.	ROUTE NO.	SECTION	COUNTY	DOT/ARR	JOB NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	100% STATE FUNDS
1	FAP 325 (IL 16)	17R-7-C1	Shelby	166 968P	C-97-005-17	RR717001	UPRR	IL 16 in Shelbyville	Surface	$100,000.00
									TOTAL =	$100,000.00

Table 4.5.4 FY 2017 grade crossing surface program (Continued)

FY 2017 SURFACE PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT EIGHT

NO.	ROUTE NO.	SECTION	COUNTY	DOT/ARR	JOB NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	100% STATE FUNDS
1	IL 4	D8RRXING2017-01	Randolph	431 147P	C-98-400-17	RR817400	UPRR	RR Xing on IL 4 in Steelville, IL	Surface	$100,000.00
2	IL 108	D8RRXING2017-02	Greene	294 593F	C-98-405-17	RR817405	KCS RR	IL 108 in Carrolton, IL	Surface	$100,000.00
									TOTAL =	$200,000.00

FY 2017 SURFACE PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT NINE

NO.	ROUTE NO.	SECTION	COUNTY	DOT/ARR	JOB NO.	AGREEMENT NO.	RR CO.	LOCATION X-ING	IMPROVEMENT	100% STATE FUNDS
1		D9 RR Xing 2017-01			C-99-000-17	RR917000			Surface	
2										
									TOTAL =	$ -

FY 2017 SURFACE PROGRAM RAIL/HIGHWAY GRADE CROSSINGS
ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN & ENVIRONMENT
DISTRICT TOTALS

DISTRICT	PROPOSED JOBS	REQUESTED FUNDS
1		$600,000.00
2		$100,000.00
3		$120,000.00
4		$100,000.00
5		$100,000.00
6		$100,000.00
7		$100,000.00
8		$200,000.00
9		$0.00
TOTAL =		***$1,420,000.00***

Chapter 5: The State's Rail Service and Investment Program

Prior chapters in this plan describe Illinois' rail system, the passengers and commodities it carries, and the supply chains it supports. The plan also analyzes the importance of Illinois' rail system to its overall economy and quality of life to Illinois residents and the nation. The vision, goals and objectives for Illinois' rail system are presented in Chapter 1. The rail vision is designed to support IDOT's mission to provide safe, cost-effective transportation for Illinois in ways that enhance quality of life, promote economic prosperity and demonstrate respect for the environment.

This chapter describes the proposed passenger and freight rail investments needed to achieve the state's vision for rail service in the future, as well as the measures and methodologies utilized to select projects. The proposed projects are divided into short-range and long-range rail investment programs as per PRIIA requirements.

5.1 PRIIA Requirements

PRIIA requires state rail plans to include a rail investment program that includes a short-range list of rail capital projects to be considered for the next five years and a long-range list of rail capital projects for years six through 20 that are expected to be undertaken or supported in whole by the state. Funded projects (short-term projects) are identified in Table 5.4. Long-range projects are presented in Table 5.5.

5.2 Aligning Rail Goals Based on LRTP Goals

Along with the development of this rail plan, the Department is also updating its Long-Range Transportation Plan (LRTP). The LRTP has established a set of overarching goals pertaining to transportation in the state of Illinois. As such, the intent of this plan is also to contribute to achieving these six overarching LRTP goals, which are as follows:

Economic Growth: Improve Illinois' economy by providing transportation infrastructure that allows for the efficient movement of people and goods.

Livability: Enhance quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options and preserve the environment.

Access: Support all modes of transportation to improve accessibility and safety by improving connections between all modes of transportation.

Resilience: Ensure Illinois' infrastructure is prepared to withstand and sustain hazards and extreme weather events.

Stewardship: Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois' transportation system.

Safety: Ensure the highest standards in safety across the state's transportation system.

The matrix below (Table 5.2.1) shows how the nine strategic goals of the rail plan align with the six Long-Range Transportation Plan goals:

Table 5.2-1 Long-Range Transportation Plan Goals with Corresponding State Rail Goals

Rail Goals	LRTP Goals					
	Economic Competitiveness	Livability	Accessibility	Resilience	Stewardship	Safety
Goal 1 *Provide an intercity passenger rail system that improves the quality of life for Illinois' residents and visitors*	**x**	**x**				**x**
Goal 2 *Promote, educate and expand intermodal and multimodal connectivity*	x	x	x			x
Goal 3 *Enhance economic development and promote economic competitiveness*	x					
Goal 4 *Provide a rail system that is safe, energy efficient and environmentally sustainable*		x	x	x		x
Goal 5 *Develop sustainable funding*	x		x		X	
Goal 6 *Improve efficiency*	x		x		X	
Goal 7 *Grow the economy*	x		x		X	
Goal 8 *Preserve existing infrastructure*	x		x		X	
Goal 9 *Safety*	x		x		X	

5.3 Rail Policy and Project Evaluation Criteria

As part of the development of this plan, IDOT endorsed its transportation vision for passenger rail service.[133] The rail vision was further refined through nine goals and specific objectives describing the role of passenger rail services in Illinois and illustrating what these services will look like in the future. Table 5.3.1 restates these goals and objectives and presents recommended policies that IDOT could adopt to support and implement these goals and objectives. Table 5.3.1 also recommends performance measures by which rail projects seeking funding can be evaluated to determine if they provide a benefit to the system and support IDOT's rail goals and objectives.[134] The recommended policies are based on comments from rail stakeholders engaged in this rail planning process. Performance measures are defined in quantifiable terms based on data available through IDOT, the railroads or project sponsors. The project evaluation and selection process would include reviewing each project based on the performance measures listed in Table 5.3.1 and comparing this to the projects' potential benefits to the system as defined by the goals and objectives.

[133] Illinois State Rail Plan, 2012
[134] Illinois State Rail Plan, 2012

The Goals and Objectives listed in Table 5.3.1 are those identified in Section 1.2.

Table 5.3-1 Goals and Objectives for Intercity Passenger Rail

Goal 1	***Provide an intercity passenger rail system that improves the quality of life for Illinois' residents and visitors***
Objectives	• Continuously seek to improve reliability • Increase efficiency and convenience of service • Increase accessibility to low income, elderly and special needs groups that have limited access to other modes of transportation
Strategies	• Partnership with host railroads/Amtrak; replacing or installing new track that will support higher speeds, greater capacity and increased reliability • Provide programs and educational materials to inform and encourage travelers to take passenger rail when the option is available • Secure funding for ADA station and equipment improvements; build coalitions; identify specific issues of the existing transportation system to meet the needs of the transportation disadvantaged; provide special discount programs (e.g., Reduced Fare Program)
Performance Measures	• On-time performance; increase in ridership • Frequency/operating hours/reliability of passenger services (ensuring that passengers arrive at their destination on time) • Amtrak customer service index; Amtrak station pages; Amtrak Accessibility Index
Goal 2	**Promote, educate and expand intermodal and multimodal connectivity**
Objectives	• Increase coordination between freight, intercity passenger and commuter rail networks and other modes of transportation • Improve access to commuter and intercity passenger service via other modes • Improve efficiency of transfers of passengers between modes
Strategies	• Support P3s to improve roadway access to intermodal and multimodal facilities • Provide adequate funding to assure the continuation of the intercity rail network; educate public on first mile/last mile challenges and opportunities • Improve signage; optimize schedules; improve bike services (roll-on bikes); offer new/improved transfer facilities; offer information kiosks; improve access to facility users; improve physical attributes (access, connection and reliability, information, amenities, security/safety)

Table 5.3.1 Goals and Objectives for Intercity Passenger Rail (Continued)

Goal 2	**Promote, educate and expand intermodal and multimodal connectivity**
Performance Measures	• Number of rail-served ports, trans-load operations, and intermodal and multimodal passenger terminals • New funding alternatives; improved intermodal and multimodal connections • Minimized travel impedances; elimination of physical barriers of facility
Goal 3	**Enhance economic development and promote economic competitiveness**
Objectives	• Increase accessibility to and mobility of passenger rail service in order to increase the potential for trade and economic development and employment opportunities; attract and retain new business • Support transit-oriented development in and near intercity passenger and commuter rail stations • Invest in long-term "mega projects" such as the Midwest Regional Rail Initiative (MWRRI); a plan to build a high-speed rail hub in Chicago; and the CREATE program • Maximize sustainability
Strategies	• Support programs to educate the public, state, MPOs and local government staff about rail's role in economic development • Educate the public about TOD • Identify projects that will improve the existing infrastructure; determine funding alternatives to implement "mega projects" • Preserve ownership of abandoned and other right-of-ways where appropriate; relieve congestion; reduce emissions; utilize new technology to improve reliability of rail service
Performance Measures	• Number of outreach and education programs/activities to educate the public; increased ridership and associated revenue; congestion relief; improved safety for pedestrians • Funding investments; number of projects completed/improvements made to the rail freight and passenger system • Reduction of carbon emissions

Table 5.3.1 Goals and Objectives for Intercity Passenger Rail (Continued)

Goal 4	**Provide a rail system that is safe, energy efficient and environmentally sustainable**
Objectives	• Promote rail and highway safety by identifying and improving hazardous highway grade crossings • Promote safety efforts throughout the system to prevent pedestrian fatalities • Improve capacity and promote congestion relief on the state's rail lines and on the highway network • Work with adjacent states to achieve a regional transportation solution • Realize positive air quality gains and reduced energy consumption with efficient passenger and freight operations • Promote efforts to provide security of passenger and freight railroad operations; reduce number of trespassers
Strategies	• Support public education and awareness programs: Operation Lifesaver • Reduce pedestrian accessibility to railroad rights-of-way • Support programs to add more capacity (e.g., HSR/CREATE); provide grade separations at congested intersections; secure funding to reduce the number of rail grade crossings • Support CREATE; Mid-America Freight Coalition (MAFC); MWRRI • Promote HSR/CREATE; encourage and install low-emission locomotives • Secure funding for security improvements; perform risk assessments; develop security plans; implement emergency response training; install HSR fencing
Performance Measures	• Federal Highway-Rail Safety Program • Incidents measured by ICC/FRA/FHWA database • The number of grade crossings eliminated; decreased delay, reduction of the use of highways by trucks • Number of projects completed through CREATE and MWRRS • Decreased environmental impacts (reduced emissions and fuel use); information regarding new locomotives • Monitoring speed, work zone and grade crossing restrictions
Goal 5	**Develop Sustainable Funding**
Objectives	• Identify needed capacity enhancements or capital improvements • Maintain a rail funding structure that provides adequate resources for rail needs incorporating federal, state, local and private revenue sources • Support public-private partnerships and private sector initiatives • Support joint use of transportation facilities for compatible activities • Explore innovative financing methods • Advocate for the creation of dedicated federal and state programs for rail infrastructure investment

Table 5.3.1 Goals and Objectives for Intercity Passenger Rail (Continued)

Goal 5	**Develop Sustainable Funding**
Strategies	• Development of strategic capital or expansion plans • Continue Illinois rail funding programs (discontinue grant program – loans only); secure other dedicated sources of funding • Encourage and invest in P3 projects • Support joint P3s and P3 initiatives to provide facilities and services that help reduce the public expenditures and maintain the quality, quantity and long-term stability of transportation facilities and services • Provide information on rail financing and funding assistance available to railroads • Support existing and proposed federal and state rail funding programs including HSR, congestion grant programs, federal Amtrak subsidies
Performance Measures	• Amount of capital improvements/enhancements met with minimal cost • Amount of funding secured • Number of P3 projects in the state • Quality of accessibility of facilities; level of service; decreased expenditures • Outreach events and publications with railroads providing information on programs and financing-related opportunities • Completed rail research studies identifying financial needs and potential funding sources
Goal 6	**Improve Efficiency**
Objectives	• Complete the CREATE program of projects
Strategies	• Continue efforts to fund and construct identified projects
Performance Measures	• CREATE program status updates
Goal 7	**Grow the Economy**
Objectives	• Restore financial soundness of the Rail Freight Loan Program • Establish a new sustainable Rail Freight Assistance Program • Establish a new sustainable Rail Freight Emergency Bridge Replacement Program for Class II and Class III railroads
Strategies	• Promote restoration of funding that due to budgetary constraints was transferred in a previous fund sweep • Introduce legislation that provides funding for a new program that is not limited by the requirements of the existing Rail Freight Loan Program • Introduce legislation that provides funding for a new program dedicated to addressing critical rail bridge replacement needs
Performance Measures	• Dollar amount of program funds secured

Table 5.3.1 Goals and Objectives for Intercity Passenger Rail (Continued)

Goal 8	*Preserve Existing Infrastructure*
Objectives	• Ensure preservation of abandoned rail corridors
Strategies	• Introduce legislation that provides IDOT with the authority to own, maintain and operate rail lines
Performance Measures	• Miles of corridors preserved
Goal 9	Safety
Objectives	• Complete the remaining grade separation of CREATE projects
Strategies	• Continue efforts to fund and construct identified projects
Performance Measures	• Eliminate vehicular/train crashes

5.4 Implementation Activities & Partners

Transportation innovations and ideas have always been derived from consideration of economic, social and technological standpoints. Consequently, we require the same spirited approach that provoked previous novelties. The Illinois State Rail Plan will offer more detail with strategies and recommendations to accomplish such bold vision. Success will require a long-term commitment to passenger rail at the federal, state and local levels. It will also require the participation of a number of private entities, from equipment manufacturers to service operators.[135] The rail plan is an achievable and realistic vision, and one that responds to the new era of challenges and opportunities. This transformational vision can only be accomplished through collaboration and partnerships between federal, state, local governments, along with private sector investment. Finally, there will be a comprehensive strategy to implement the plan with legislative, policy and administrative recommendations. Table 5.4.1 lists different implementation activities and partners for each rail goal.

[135] https://www.fra.dot.gov/Elib/Document/1336

Table 5.4-1 Implementation activities and data requirements for performance measures of rail goals

Goal 1	Provide an intercity passenger rail system that improves the quality of life for Illinois' residents and visitors
Partner	• Amtrak; railroads; FRA • Office of Intermodal Project Implementation (passenger marketing); IDOT (Bureau of Railroads) • Amtrak; HSTP coordinators; FRA; OIPI transit/rail; MPOs
Data requirement	• Ridership data; OTP report • Customer needs/surveys; OTP report • Customer needs assessment report; Amtrak Accessibility Index
Goal 2	Promote, educate and expand intermodal and multimodal connectivity
Partner	• Class 1/short-line/commuter railroads; IDOT (Planning/Programming/Highways); MPOs; FTA; Illinois State Freight Advisory Council (ISFAC); County Engineers Association; Township Officials; Illinois Municipal League; OIPI; FRA • FRA (passenger); Office of Intermodal Project Implementation (Passenger/Freight Sections); Amtrak; freight and commuter rail operators; FTA • Bike-sharing entities; OIPI rail/transit; ICC (safety/security); rail/transit operators;
Data requirement	• Inventory of multimodal stations; customer survey (e.g., How do I get to my destination?) • First mile/last mile data; transit ridership data • Transit ridership data; customer satisfaction surveys
Goal 3	Enhance economic development and promote economic competitiveness
Partner	• OIPI (Passenger/Freight Sections), Amtrak, IDOT (Planning/Programming), CMAP, local government, MPOs • Visitors convention bureaus; DCEO; Innovative Project Delivery Office; IDOT (Transit); CMAP; Center for Neighborhood Technology; county and local governments; MPOs; transit agencies • Office of Innovative Project Delivery; FRA; FHWA; Bureau of Planning; OIPI (HSR/CREATE/freight); MWRRI • IDOT; railroads; Rails for Trails; Surface Transportation Board
Data requirement	• Outreach to companies that have relocated; DCEO; civic foundations • Number of bus stations opened within a certain radius • Number of funded/funding programs

Table 5.4.1 Implementation activities and data requirement for performance measures of different Rail Goals (Continued)

Goal 4	**Provide a rail system that is safe, energy efficient and environmentally sustainable**
Partner	• IDOT (Local Roads/Streets); ICC (RR Safety Section); public project engineers from RRs; local governments and agencies • ICC (Railroad Safety Section); FRA (Railroad Safety); FHWA • Office of Intermodal Project Implementation (HSR/CREATE); railroads; local governments and agencies • IDOT (Planning/Programming); Mid-America Freight Coalition; Office of Intermodal Project Implementation (CREATE); MWRRI • Office of Intermodal Project Implementation (Freight/Passenger Sections); CMAP (Air Quality Improvement Program); railroads; Amtrak • Association of American Railroads; Transportation Security Administration (TSA); Department of Homeland Security; IDOT (Transportation Committee); Illinois Terrorism Task Force (ITTF); Amtrak
Data requirement	• ICC website; Operation Lifesaver; FRA • District Department of Transportation Pedestrian Safety Action Plan • CREATE data • Amtrak annual railroad data; Class 1 annual report; AAR • Amtrak reports on security activities/programs; District Department of Transportation Pedestrian Safety Action Plan; AAR; DuPage County Railroad Safety Council
Goal 5	Develop Sustainable Funding
Partner	Office of Intermodal Project Implementation (Freight/Passenger Sections); IDOT Bureau of Planning; FRA; railroads; Governor; General Assembly; USDOT; Amtrak, ICC
Goal 6	Improve Efficiency
Partner	• Bureau of Railroads
Data requirement	• CREATE progress reports
Goal 7	Grow the Economy
Partner	• Bureau of Railroads
Data requirement	• State transportation budget

Table 5.4.1 Implementation activities and data requirement for performance measures of rail goals (Continued)

Goal 8	**Preserve Existing Infrastructure**
Partner	• Bureau of Railroads
Data requirement	• New data sets will be created
Goal 9	Safety
Partner	• Bureau of Railroads
Data requirement	• Illinois Commerce Commission Report

5.5 Short-Range Rail Investment Program

The projects listed in Table 5.5.1 have been evaluated based largely on the respective eligibility criteria, evaluation methodology and the level of benefits associated with the respective source of funding.

Projects funded through IDOT's Rail Freight Program are selected on the basis of applicants' estimates of benefits expected for the project in terms of job creation, job retention, shipper transportation savings and other project-specific benefits.

Grade crossing improvement projects are prioritized based upon several criteria, including the relative safety of the existing crossing and the volume and types of existing train and highway traffic. After each potential project is prioritized based on engineering requirements, geographic location is also taken into account so the safety improvements throughout the state can be addressed as equitably as possible. Priorities include high collision history, rail corridors where passenger trains operate, and locations where grade crossing separation may be required to eliminate blockages that cause substantial motorist or emergency vehicle delay.

Larger-scale rail projects, which are financed through a combination of federal and state funding sources, are selected initially on the basis of the eligibility criteria of the respective federal programs and the availability of Illinois funding or use of special bond financing. Eligible projects are then prioritized on the basis of how well the projects meet the state's goals, objectives, and policies, and the level at which they meet each goal's performance measures. The goals and performance measures related to project selection and prioritization are described in section 5.3.

Table 5.5-1 Short-Range (1-5 Years) Investment Program

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
Rail Passenger Projects				
Chicago to St. Louis High-Speed Rail Passenger Improvements	Improve signal system, track, stations, grade crossings and passenger equipment to allow 110 mph intercity passenger service. 110 mph service between Dwight – Alton expected in 2018, with additional reliability improvements and new equipment deliveries in 2017.	Improve both rail passenger and freight operations between Chicago and St. Louis.	$345 million	Federal/ State/ Local
Springfield – 10th Street Corridor Consolidation	Consolidate freight and passenger operations through Springfield.	Reduce congestion and increase operating efficiencies.	$100 million	Federal/ State/ ICC/ Railroads/ Local
Chicago-Quad Cities Amtrak Service	Construct a new track connection near Wyanet, a train layover facility and other improvements necessary to initiate passenger service.	Provide new intercity passenger rail service to the western part of state.	$222 million	$177 million FRA/ $45 million State
Chicago Terminal Planning Study	Study with partners FRA, Metra and Chicago DOT to analyze existing and proposed Amtrak, Metra and freight operations in the Chicago Terminal area.	Optimized intercity passenger and commuter rail routes in and out of Chicago Union Station.	$6 million	$3 million FRA $1 million State/ $1 million Metra/ $1 million City of Chicago

Table 5.5.1 Short-Range (1-5 Years) Investment Program (Continued)

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
Moline Multimodal Station	Construct new multimodal station in downtown Moline, Illinois. Will serve as a transportation hub reconnecting the Quad Cities with Chicago, and ultimately to Iowa City, IA, and Omaha, Nebraska. Estimated completion date is 2018.	Establishes truly multimodal transportation connections between local buses and bicycle and pedestrian facilities.	$16 million	$10 million Federal TIGER/ State
Joliet Multimodal Transportation Facility	Develop a multimodal transportation center in Joliet that provides user access and connectivity to Metra commuter rail, Amtrak passenger rail, local PACE service, intercity bus service and taxi service in downtown Joliet. Estimated completion date is 2018.	Better rail efficiency; safer boarding for intercity passengers and commuters.	$50 million	State/ City of Joliet/ BNSF
Chicago – Milwaukee Hiawatha Intercity Passenger Rail Service Expansion Study	Study with Wisconsin DOT to analyze infrastructure needed to expand Chicago-Milwaukee Hiawatha Intercity Passenger Rail (Amtrak) Service to 10 RT daily.	Improved passenger rail service between Chicago and Milwaukee	$1.4 million	State of Illinois/ State of Wisconsin
Positive Train Control (PTC) Installation on All Metra Routes	Enforce the limits of train movement authority and monitor commuter rail speed, work zone and grade crossing restrictions through PTC installation. Estimated completion date is 2019.	Improve overall safety of all Metra rail operations.	$408 million	FTA/ Metra/ State

Table 5.5.1 Short-Range (1-5 Years) Investment Program (Continued)

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
UP North Bridge Program	Replace 22 bridges on the UP-North Line between the OTC and Kenosha.	Maintain current reliability and efficiency of commuter service and improve freight service on the line.	$360 million	FTA/ Metra/ State
UP West Third Track Improvements	Construct a third track between River Forest and Melrose Park and between West Chicago and Geneva.	Improve travel time, enhance capacity, and increase reliability and efficiency of both commuter and freight service.	$89 million	$44.5 million Metra (State)/ $44.5 million UP
Metra Rolling Stock Rehabilitation and Replacement	Purchase 52 locomotives and 367 new rail cars, and rehabilitate 455 existing rail cars.	Improve commuter rail reliability and efficiency.	$2140 million	FTA/Metra
Metra 49th Street Yard Improvement and Expansion	Improve and modernize 49th Street Yard to increase rehabilitation production and add training facilities.	Ensure a skilled workforce capable of maintaining an in-house rehabilitation program.	$20 million	FTA/Metra
Metra Bridge Rehabilitation and Replacement	Rehabilitate and reconstruct various Metra bridges throughout the system.	Increase commuter rail reliability and efficiency.	$560 million	FTA/Metra
A-2 Interlocking Improvement	Determine costs and optimal solution to improve the A-2 Interlocking, where over 350 trains a day including Milwaukee District North, Milwaukee District West, North Central Service and Union Pacific West trains cross over at grade using no less than 31 switches. Solution may include a flyover at this location.	Improve commuter rail service reliability and efficiency, and provide additional track capacity for future expanded service.	$500 million	FTA/Metra/ Union Pacific

Table 5.5.1 Short-Range (1-5 Years) Investment Program (Continued)

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
75th Street Capital Improvement Program	Reconfigure and add tracks and flyovers to improve fluidity of SWS and freight trains in area including an expansion of the 51st Street Coach Yard.	Increases freight and commuter train speed and capacity by separating traffic; increases capacity at Chicago Union Station by re-routing SWS trains into LaSalle Street Station.	$1500 million	FTA/Metra
Additional Metra State of Good Repair Needs	Metra's capital investment needs over its 10-year capital program period includes a $6.1 billion backlog in addition to $5.5 billion in normal replacement and rehabilitation, and an additional $100 million for capital maintenance.	Bring Metra's full system into a state of good repair and maintain the system as such to ensure commuter rail service reliability and efficiency.	$5850 million	FTA/Metra/ State of Illinois
Rail Freight Projects				
The Indiana Rail Road Company Bridge Replacement	Replacement of eight timber trestle bridges on the railroad's Indianapolis Subdivision. Estimated completion date is 2018.	Preserve rail service capable of 286,000 pound cars to local industries, preserving local jobs and retaining Illinois businesses.	$5 million	$2.5 million IDOT Grant/$2.5 million Railroad
CREATE Rail Projects				
75th Street Corridor Improvement Projects (CREATE P2, P3, EW2, GS19)	Address conflicts between CSX, BRC, UP, NS and Metra, including reconfiguration of existing trackage and construction of new tracks, flyovers and signalization.	Increases freight and commuter train speed and capacity by removing bottlenecks and eliminating commuter delay.	$1 billion	TBD

Table 5.5.1 Short-Range (1-5 Years) Investment Program (Continued)

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
CP Crossover Upgrades (CREATE B1)	Install five crossovers and associated signaling on the Metra tracks serving the Milwaukee District West Line and CP.	Reduces delays to commuters and freight trains and to motorists at nearby at-grade crossings.	$19.8 million	Metra/ State
Argo Connections (CREATE B9, EW1)	Construct a new double track connection and crossovers between the BRC and the IHB/CSX line at Archer and 63rd in Summit.	Increases freight train capacity and allows more evenly distributed train traffic throughout the regional rail network.	$148.8 million	TBD
Upgrade Yard Track at Pullman Junction (CREATE EW3)	Upgrade track in BRC's Commercial Avenue Yard from Rock Island Junction to Pullman Junction.	Adds capacity and reduces delay for freight trains through a major corridor.	$73.8 million	TBD
Grade Crossing Projects				
The Illinois Commerce Commission's Proposed Grade Crossing Protection Fund Projects for Fiscal Years 2018-2022 can be viewed at www.icc.illinois.gov/railroad/CrossingSafetyImprovement.aspx.				

5.6 Long-Range Rail Investment Program

Illinois' Long-Range Rail Investment Program is comprised of projects that have been identified by IDOT, the state's railroad operators, or other rail stakeholders during the State Rail Plan outreach as necessary to improve rail safety or efficiency of the Class I or short-line freight network, or to expand or implement new intercity passenger service. These projects, however, are not expected to be implemented within the next five years or, in most cases, the funding necessary to implement the projects has not been identified. These projects are identified in **Table 5.6.1**.

Long-range projects may be subject to additional feasibility analysis and evaluation of potential public and private benefits. Upon completion of these analyses, prioritization and determination of the availability of state or federal funding resources, projects selected for implementation will be moved to the Short-Range Rail Investment Program.

Table 5.6-1 Long-Range (6-20 Years) Investment Program

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
Rail Passenger Projects				
Chicago to St. Louis High-Speed Rail Passenger Improvements	Double track full rail corridor.	Improve both rail passenger and freight operations between Chicago and St. Louis.	$5-7 billion	Federal/State
Chicago to Detroit High-Speed Rail Passenger Improvements	Upgrade corridor to high-speed rail standards.	Improve rail both rail passenger and freight operations between Chicago and Detroit.	$600 million	Federal/ State
Springfield – 10th Street Corridor Consolidation	Consolidate freight and passenger operations through Springfield.	Reduce congestion and increase operating efficiencies.	$200 million	Federal/State/ ICC/ Railroads/ Local
Chicago Union Station Improvements	Improve platforms, waiting areas and pedestrian flow in the station.	Improve passenger safety and amenities; increase accessibility to the station and efficiency of pedestrian movement through the station.	$500 million	Federal/State/ Metra/ AMTRAK
Chicago-Rockford-Dubuque Corridor; Rockford Station	Construct multimodal station in Rockford; re-establish passenger rail service to the Rockford area.	Provide new intercity passenger rail service to the northwest corner of the state.	$233 million	State
Chicago – Milwaukee Hiawatha Intercity Passenger Rail Service Expansion	Construct infrastructure needed to expand Chicago-Milwaukee Hiawatha Intercity Passenger Rail (Amtrak) Service to 10 RT daily.	Improve passenger rail service between Chicago and Milwaukee.	$150 million	Federal/ State of Illinois/ State of Wisconsin
Chicago to St. Louis 220 MPH High-Speed Rail Passenger Improvements	New dedicated alignment for 220 mph speeds for passenger rail operations.	Provide 220 mph high-speed rail service between Chicago and St. Louis.	$12 billion	Public-Private Partnership

Table 5.6.1 Long-Range (6-20 Years) Investment Program (Continued)

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
Metra Electric District Improvements	Implement infrastructure improvements on the MED Line to enhance capacity and allow for operational flexibility.	Increased operational efficiency and reliability.	$28 million	FTA/ Metra
Metra Rock Island District Improvements	Implement infrastructure improvements on the Rock Island District to enhance capacity and allow for operational flexibility.	Increased operational efficiency and reliability.	$563 million	FTA/ Metra
Metra SouthWest Service Improvements	Implement infrastructure improvements on the SWS to enhance capacity and allow for operational flexibility.	Increased operational efficiency and reliability.	$283 million	FTA/ Metra
Heritage Corridor Improvements	Implement infrastructure improvements on the HC to enhance capacity and allow for operational flexibility.	Increased operational efficiency and reliability.	$271 million	FTA/ Metra
Metra BNSF Railway Line Improvements	Implement infrastructure improvements on the BNSF to enhance capacity and allow for operational flexibility.	Increased operational efficiency and reliability.	$269 million	FTA/ Metra
Metra UP West Line Improvements	Implement infrastructure improvements on the UP-W to enhance capacity and allow for operational flexibility.	Increased operational efficiency and reliability.	$385 million	FTA/ Metra
Metra Milwaukee District West Improvements	Implement infrastructure improvements on the MD West Line to enhance capacity and allow for operational flexibility.	Increased operational efficiency and reliability.	$629 million	FTA/ Metra

Table 5.6.1 Long-Range (6-20 Years) Investment Program (Continued)

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
Metra UP Northwest Line Improvements and Extension	Extend the McHenry Branch of the UP-Northwest line to Johnsburg, add two additional new stations at Prairie Grove and East Woodstock, and implement strategic operational and safety improvements.	Provides service accessibility to a region that currently does not have commuter rail access and increases service levels through increased flexibility and reliability.	$703 million	FTA/ Metra
Metra Milwaukee District North Improvements	Implement infrastructure improvements on the MD North Line to enhance capacity and allow for operational flexibility.	Increased operational efficiency and reliability.	$681 million	FTA/ Metra
Metra North Central Service Improvements	Implement infrastructure improvements on the NCS Line to enhance capacity and allow for operational flexibility.	Increased operational efficiency and reliability.	$501 million	FTA/ Metra
Metra UP North Line Improvements	Implement infrastructure improvements on the UP-North Line to enhance capacity and allow for operational flexibility.	Increased operational efficiency and reliability.	$961 million	FTA/ Metra
Additional Metra State of Good Repair Needs	Metra's capital investment needs over its 10-year capital program period include a $6.1 billion backlog in addition to $5.5 billion in normal replacement and rehabilitation, and an additional $100 million for capital maintenance.	Bring Metra's full system into a state of good repair and maintain the system as such to ensure commuter rail service reliability and efficiency.	$5850 million	FTA/Metra/ state of Illinois

Table 5.6.1 Long-Range (6-20 Years) Investment Program (Continued)

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
BNSF Extension – Kane County	Extend the BNSF line from the current terminus in Aurora west into southern Kane County.	Provide rail service to a part of the region that currently does not have commuter rail access.	TBD	FTA/ Metra
BNSF Extension – Kendall County	Extend the BNSF line from the current terminus in Aurora west into northern Kendall County.	Provide rail service to a part of the region that currently does not have commuter rail access.	TBD	FTA/ Metra
SouthEast Commuter Rail Service	Provide new commuter rail service to the south Chicago suburbs between LaSalle Street Station in Chicago and Crete/Balmoral Park.	Provide commuter rail access and a reliable transportation option for travel to downtown Chicago.	TBD	FTA/ Metra
Metra Electric District Extension	Extend the MED line from the current terminus at University Park to the proposed South Suburban Airport in Peotone.	Provide rail service to a part of the region that currently does not have commuter rail access.	TBD	FTA/ Metra
Metra Heritage Corridor Extension	Extend the HC line from its current terminus at Joliet Union Station to Wilmington.	Provide rail service to a part of the region that currently does not have commuter rail access.	TBD	FTA/ Metra
Metra Rock Island District Extension	Extend the RID line from its current terminus at Joliet Union Station to Minooka.	Provide rail service to a part of the region that currently does not have commuter rail access.	TBD	FTA/ Metra
Metra Milwaukee District North Extension – McHenry County	Extend the MD-N line from its current terminus at Fox Lake to Richmond.	Provide rail service to a part of the region that currently does not have commuter rail access.	TBD	FTA/ Metra
Metra Milwaukee District North Extension – Lake County	Extend the MD-N line from Rondout Junction north to Wadsworth.	Provide rail service to a part of the region that currently does not have commuter rail access.	TBD	FTA/ Metra

Table 5.6.1 Long-Range (6-20 Years) Investment Program (Continued)

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
Metra Milwaukee District West Extension – McHenry County	Extend the MD-W line from its current terminus at Big Timber Road to Marengo in southern McHenry County.	Provide rail service to a part of the region that currently does not have commuter rail access.	TBD	FTA/ Metra
Metra Milwaukee District West Extension – Kane County	Extend the MD-W line from its current terminus at Big Timber Road to Hampshire in northern Kane County.	Provide rail service to a part of the region that currently does not have commuter rail access.	TBD	FTA/ Metra
STAR Line - West	Provide new suburb-to-suburb commuter rail service from Joliet – Renwick Road to the O'Hare Airport area via Hoffman Estates.	Link the most populated areas in the Chicago region and to relieve highway congestion.	TBD	FTA/ Metra
STAR Line - North	Provide new suburb-to-suburb commuter rail service from Hoffman Estates and the proposed STAR Line – West to Waukegan in Lake County.	Link Metra's northern lines and dense areas of the Chicago region and to relieve highway congestion.	TBD	FTA/ Metra
STAR Line - East	Provide new suburb-to-suburb commuter rail service from Joliet – Renwick Road and the proposed STAR Line – West to Lynwood in south suburban Cook County.	Link Metra's southern lines and dense areas of the Chicago region and to relieve highway congestion.	TBD	FTA/ Metra
CREATE Rail Projects				
63rd & Harlem Avenue & Belt Railway of Chicago Grade Separation (CREATE GS1)	Eliminate at-grade crossing of 63rd Street and two Belt Railway tracks near Harlem Avenue in Chicago through a grade separation project.	Eliminates an existing crossing, reduces congestion and increases safety.	TBD	TBD

Table 5.6.1 Long-Range (6-20 Years) Investment Program (Continued)

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
Central Avenue and Belt Railway of Chicago Grade Separation (CREATE GS2)	Eliminate the at-grade crossing of Central Avenue in Chicago and two Belt Railway tracks located near Archer Avenue and 55th Street through a grade separation project.	Eliminates an existing crossing, reduces congestion and increases safety.	TBD	TBD
NS Morgan Street Grade Crossing Improvements (CREATE GS3a)	Separate the NS at-grade crossing at Morgan Street in Chicago or the installation of dynamic signage to direct motorists to alternative routes.	Reduces traffic delays through separation or other alternatives.	TBD	TBD
Central Avenue & Indiana Harbor Belt Grade Separation (CREATE GS4)	Eliminate the at-grade crossing of Central Avenue in Chicago Ridge/Oak Lawn at the two IHB tracks through grade separation.	Eliminates an existing crossing, reduces congestion and increases safety.	TBD	TBD
5th Avenue & UP Grade Separation (CREATE GS8a)	Eliminate the at-grade crossing of 5th Avenue in Maywood and two UP tracks through grade separation.	Eliminates an existing grade crossing, reduces congestion and increases safety.	TBD	TBD
Archer Avenue & Belt Railway of Chicago Grade Separation (CREATE GS9)	Eliminate the at-grade crossing of Archer Avenue in Chicago and two Belt Railway tracks through grade separation.	Eliminates an existing crossing, reduces congestion and increases safety.	TBD	TBD
47th & East Avenue & Indiana Harbor Belt Grade Separation (CREATE GS10)	Eliminate the at-grade crossing of 47th Street and East Avenue in LaGrange/McCook by three tracks of the IHB by grade separation.	Eliminates two grade crossings, reduces congestion and improves safety.	TBD	TBD

Table 5.6.1 Long-Range (6-20 Years) Investment Program (Continued)

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
Columbus Avenue & Belt Railway Co. Grade Separation (CREATE GS11)	Eliminate the at-grade crossing of Columbus Avenue in Chicago by three Belt Railway Co. of Chicago tracks by grade separation.	Eliminates a grade crossing, reduces congestion and improves safety.	TBD	TBD
1st Avenue & UP Grade Separation (CREATE GS12)	Eliminate the at-grade crossing at First Avenue in Maywood at two UP tracks by grade separation.	Eliminates a grade crossing, reduces congestion and improves safety.	TBD	TBD
31st Street & Indiana Harbor Belt Grade Separation (CREATE GS13)	Eliminate the at-grade crossing of 31st Street in LaGrange Park and three Indiana Harbor Belt tracks by grade separation.	Eliminates a grade crossing, reduces congestion and improves safety.	TBD	TBD
Western Avenue between 135th and 136th & CSX Grade Separation (CREATE GS17)	Eliminate the at-grade crossing of Western Avenue in Blue Island and three CSX tracks by grade separation.	Eliminates a grade crossing, reduces congestion and improves safety.	TBD	TBD
Harlem Avenue & BNSF Grade Separation (CREATE GS18)	Eliminate the at-grade crossing of Harlem Avenue in Berwyn/Riverside and three BNSF tracks by grade separation.	Eliminates a grade crossing, reduces congestion and improves safety.	TBD	TBD
87th Street & CSX Grade Separation (CREATE GS20)	Eliminate the at-grade crossing of 87th Street in Chicago and two CSX tracks by grade separation.	Eliminates a grade crossing, reduces congestion and improves safety.	TBD	TBD
95th Street & UP Grade Separation (CREATE GS21a)	Eliminate the at-grade crossing of 95th Street in Chicago and two UP tracks by grade separation.	Eliminates a grade crossing, reduces congestion and improves safety.	TBD	TBD
115th Street & Indiana Harbor Belt Grade Separation (CREATE GS22)	Eliminate the at-grade crossing of 115th Street in Alsip and two IHB tracks by grade separation.	Eliminates a grade crossing, reduces congestion and improves safety.	TBD	TBD

Table 5.6.1 Long-Range (6-20 Years) Investment Program (Continued)

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
Cottage Grove & IHB/CSX Grade Separation (CREATE GS23a)	Eliminate the at-grade crossing of Cottage Grove in Dolton and four IHB and CSX tracks by grade separation.	Eliminates a grade crossing, reduces congestion and improves safety.	TBD	TBD
Maple Avenue & BNSF Grade Separation (CREATE GS24)	Eliminate the at-grade crossing of Maple Avenue in Brookfield and four BNSF tracks by grade separation.	Eliminates a grade crossing, reduces congestion and improves safety.	TBD	TBD
Grand Crossing (CREATE P4)	Provide a new direct route between Pershing Road and 117th Street in Chicago for Amtrak trains from New Orleans or Carbondale into Union Station and provide sufficient mainline capacity to accommodate additional Amtrak and freight trains.	Provide a more direct route for passenger trains reducing schedule times.	TBD	TBD
Brighton Park Flyover (CREATE P5)	Construct a bridge to carry CN/Metra Heritage Corridor tracks over or under CSX and NS tracks on the Western Ave corridor.	Removes conflict points between commuter, passenger, and freight trains and reduces delays.	TBD	TBD
CP Canal Flyover (IHB/CN Flyover) (CREATE P6)	Construct a double-tracked bridge in Summit to carry two CN main tracks over or under the IHB.	Removes conflict points between commuter, passenger, and freight trains and reduces delays.	TBD	TBD
Chicago Ridge Flyover (CREATE P7)	Construct a structure to carry two NS/Metra SouthWest Service line tracks in Chicago Ridge either over or under the IHB.	Removes conflict points between commuter and freight trains and reduces delays.	TBD	TBD

Table 5.6.1 Long-Range (6-20 Years) Investment Program (Continued)

Project Name	Project Description	Project Benefits	Estimated Cost ($millions)	Proposed
UP Ogden Junction Signalization (CREATE WA1)	Install a new bi-directional computerized traffic control system on a two-mile segment of the UP line along the Western Avenue Corridor in Chicago.	Increase freight and commuter train speed and capacity and reduce delays.	TBD	TBD
Brighton Park Connection (CREATE WA7)	Construct a new connection from the CN Joliet Subdivision near California Avenue and Archer Avenue to the Western Avenue Corridor.	Provides a new connection between freight train routes, adding capacity and reducing delays.	TBD	TBD
Dolton Avenue Interlocking Upgrade (CREATE WA11)	Upgrade and reconfigure the CSX/IHB/UP connection at Dolton Interlocking including the replacement of an NS connection between the IHB and CSX.	Increases freight train speed and reduces delays where multiple trains cross.	TBD	TBD

Chapter 6: Coordination and Review

This chapter describes how the Illinois Department of Transportation (IDOT) involved stakeholders in the coordination and development of the Long-Range Transportation Plan/Illinois State Rail Plan. In addition to providing general input on the plan, stakeholders assisted in identifying rail system needs and identifying future projects that are included in long-range transportation plans.

6.1 Public and Agency Participation

The state of Illinois and IDOT are committed to an ongoing stakeholder and public involvement process for all aspects of its transportation program. The 2017 Illinois State Rail Plan Update will be published and presented as an element of the state's 2017 Long-Range Transportation Plan (LRTP), as required in 23 U.S.C. 135 and 49 U.S.C. 5304, in accordance with the Moving Ahead for Progress in the 21st Century Act (MAP-21). Incorporation of the Illinois State Rail Plan within the statewide Long-Range Transportation Plan may provide an opportunity for Illinois to more fully envision and present the rail program within a broader context of the state's multimodal statewide transportation system. Outreach efforts for rail and freight plans were combined with LRTP outreach in order to guide the development of the various plans. The following outreach efforts were implemented:

6.1.1 Overarching Goals

One of IDOT's first outreach efforts was to engage citizens in prioritizing the following six goals of the Long-Range Transportation Plan: Safety, Economic Growth, Access, Livability, Stewardship and Resilience. More than 700 survey responses were collected from various transportation officials and the general public across Illinois. Stakeholders provided input in establishing mode-specific objectives for the overarching goals.

6.1.2 All Our Ideas Survey

The All Our Ideas Survey was an innovative interactive site that allowed Illinoisans to vote for ideas to improve transportation in Illinois. Residents participated by prioritizing IDOT-identified ideas and adding their own. Refining these ideas assisted IDOT in prioritizing the goals for the plan. IDOT received over 36,000 votes from the public. Eight of the top ten ideas came from user-generated ideas.

6.1.3 Tradeoff Input

Public stakeholders were asked to prioritize mode-specific objectives for the individual plans. Participants were encouraged to complete an online activity using a goals and objective matrix to help IDOT identify where residents would like to see an increased focus for all modes.

6.1.4 Stakeholder Input/Conversation Cafés

In addition to seeking input from stakeholders and the public, IDOT held three conversation cafés across Illinois to seek input on the goals and objectives of the LRTP/Rail Plan. The conversation cafés were attended by a mix of MPO staff, local and state agency staff, advocacy groups, various trade groups and other transportation professionals. This input will shape Illinois' transportation network for the next 20 years.

6.1.5 Illinois State Freight Advisory Council (ISFAC)

The Illinois State Freight Advisory Council was established by IDOT in 2013 to provide a standing forum for coordination of freight multimodal planning in Illinois. The goal of the ISFAC is to enhance the public benefits of every mode, improve intermodal connections and sustain the state's position as the primary freight hub of the nation.

The ISFAC will have a statewide focus on freight mobility in Illinois that will reflect a mix of freight experts from across all modes to include railroad, port and airport operators; trucking firms; freight shippers and receivers; economic development organizations; public sector representatives; academic and professional organizations; and manufacturing, agriculture and energy representatives. To that end, the Illinois State Freight Advisory Council is comprised of high-level public and private sector representatives involved with freight transportation on Illinois' railways, highways, waterways and airways.

6.2 Illinois' Involvement with Multi-State Planning

IDOT interacts with neighboring states on a routine basis. For instance, IDOT participated in a multi-state rail plan presentation, and DOT representatives from the neighboring states of Iowa, Kansas, Minnesota, Nebraska, South Dakota, Wisconsin and Missouri all participated in the coordination of the webinar. Topics of interest included passenger and freight funding programs, rail needs and improvements, and rail planning and coordination.

6.2.1 Midwest Interstate Passenger Rail Commission (MIPRC)

This commission brings together state leaders from across the region to advocate for passenger rail improvements. Formed by compact agreement in 2000, MIPRC's current members are Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota and Wisconsin. The main purposes of the compact are to promote, coordinate and implement improvements to intercity passenger rail service in the Midwest. MIPRC is a strong advocate for CREATE and other infrastructure improvements throughout the region that will modernize our aging freight rail infrastructure and lessen train delays.

6.2.2 Midwest Regional Rail Initiative (MWRRI)

The Midwest Regional Rail Initiative (MWRRI) is the combined effort of nine Midwestern state departments of transportation that have worked since 1996 to plan and implement a 3,000-mile high-speed rail system to connect the region. The Midwest Regional Rail System (MWRRS) plan elements include:

- Use of existing rail right of way to connect rural and urban areas
- Operation of a hub-and-spoke passenger rail system
- Introduction of modern, high-speed trains operating at speeds up to 110 mph
- Provision of multimodal connections to improve system access

6.2.3 States for Passenger Rail Coalition (SPRC)

The States for Passenger Rail Coalition (SPRC) is an alliance of 24 state departments of transportation and four passenger rail authorities from across the United States who work together

to support the growth and development of intercity passenger rail service. The SPRC's goal is to advocate for ongoing federal funding and support for intercity passenger rail initiatives on behalf of its members, to support current and long-range plans for passenger rail advancement, and to facilitate cooperation and coordination among state officials and between public and private sectors at all levels.

Two areas were highlighted as achievements for Illinois in 2016: safety and service. Safety improvements were completed at 141 crossings by installing four-quadrant gates and specialized loop detectors. Approximately 72 additional crossings are scheduled to be upgraded in 2017. Pedestrian gates will be installed where they are needed. Second, working with partners in California and the Midwest, SPRC led an effort to improve service and reliability by adding new locomotives. The first of 33 more powerful locomotives that will achieve faster speeds, reduce travel times and improve reliability are anticipated to arrive in 2017 – 21 locomotives have been delivered to Chicago for use in the Midwest; two locomotives will be delivered in early 2018, and 10 locomotives remain in Pueblo, Colorado while Amtrak deploys P42 locomotives elsewhere and frees up storage space in Chicago. These locomotives will be more fuel efficient as well as winterized for improved performance and reliability during colder months. SPRC is also working to improve stations and employ new technology to improve the travel experience for riders.

6.2.4 Mid-America Freight Coalition (MAFC)

The Mid-America Freight Coalition is a regional organization comprised of 10 states that cooperates in the planning, operation, preservation and improvement of transportation infrastructure in the Midwest. While growing congestion threatens the sustainability of freight movement in the Mississippi Valley region, the coalition was created to protect and support the economic well-being of farms, industries and people by keeping the products of those industries, farms and people flowing to markets reliably, safely and efficiently.

In August 2017, MAFC technical representatives from the 10 member states met in Columbus, Ohio, for the 2017 MAFC Annual Meeting held in conjunction with the Ohio Conference on Freight. This year's meeting focused on smart logistics. Conference attendees learned how smart technologies are being incorporated in transportation infrastructure projects and explored the impacts these technologies will have on the future workforce, infrastructure and economy as well as what these evolving technologies mean for planning and operations at state and local agencies.

Appendix

Components of Financial Metrics

Short-term avoidable costs are costs that cease to exist within twelve months of a route no longer operating.

Passenger-related revenue is net ticket revenue plus food and beverage revenue.

The percent of short-term avoidable costs covered by passenger-related revenue is shown with and without the revenue subsidy state-supported routes have.

Fully-allocated operating costs include direct, shared and overhead costs that were allocated to an Amtrak route.

Direct costs include costs directly associated with operating a route such as labor, fuel, commissary and equipment maintenance costs.

Shared costs are costs that benefit more than one route, such as shared station and marketing costs.

Overhead costs are general and administrative costs, such as maintenance and crew overhead.

The percent of fully-allocated operating costs covered by passenger-related revenue is shown with and without the revenue subsidy state-supported routes have.

Long-term avoidable costs are costs that would cease to be incurred five years after a route is no longer operated.

A passenger mile is one passenger traveling one mile. Ten passengers who each travel 100 miles, for example, would generate 1,000 passenger miles (10 times 100).

The long-term avoidable operating loss per passenger mile is shown with and without the revenue subsidy state-supported routes have. The state-supported routes are identified in the financial metrics.

Adjusted (loss) is defined as the net operating loss (before net interest expense), less depreciation, other Ppost-employment benefits and project costs that capital funding covers.

A passenger mile is one passenger traveling one mile. Ten passengers who each travel 100 miles would generate 1,000 passenger miles (10 times 100).

The adjusted (loss) per passenger mile is shown with and without the revenue subsidy state-supported routes provide.

A train mile is one train moving one mile. For each route, the passenger mile per train mile is total passenger miles divided by total train miles. It identifies the average passenger load on a route's trains over a period of time. It is reported for each route in Amtrak's network.

Components of On-Time Performance (OTP) Metrics

Effective speed uses the scheduled departure time from a train's origin, its actual arrival time at the scheduled destination, and the average mileage between the scheduled origin and destination.

All stations on-time performance measures how a train performs compared to the published schedule at each station on the line. Each measured arrival or departure at a station is an "instance." If a route has one round trip per day, serving ten stations each way, then it would generate 20 "instances" per day (2 times 10), and 600 instances in a 30-day month (30 times 2 times 10).

Each instance that deviates less than 15 minutes from the schedule is "on time." If there is no time recorded at a station for a train and date, the researcher excludes that instance from his or her calculations. For each route, the researcher divides the total number of "on time" instances by the total number of instances for the measurement period and expresses them as a percentage to derive all-stations on-time performance.