






Wisconsin State Freight Plan

PLANNING NOW TO MOVE TOMORROW

2027 ***DRAFT***

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1

Executive Summary

CHAPTER 1 ▪ WISCONSIN STATE FREIGHT PLAN

2027

1. Executive Summary

The Wisconsin State Freight Plan serves as a comprehensive blueprint for enhancing the state's multimodal freight transportation system. This plan addresses the critical role freight movement plays in Wisconsin's economic vitality and quality of life, guiding strategic investments across highways, railroads, waterways, airports, and pipelines.

The plan is organized around three overarching goals:

1. **Enhance** safety, security, and resiliency across all freight modes
2. **Ensure** system preservation and enhancement of critical infrastructure
3. **Enhance** system mobility, operations, reliability, efficiency, and connectivity throughout the state

Economic Context

In 2023, Wisconsin moved over **702 million tons** of freight valued at more than **$836 billion**. Trucking dominates freight movement, accounting for approximately 70% of tonnage and 74% of value. The state's freight system supports key economic sectors. Wisconsin's strategic location facilitates international trade, with top export commodities including machinery, computer and electronic products, transportation equipment, chemicals, and food products. Freight-dependent economic sectors accounted for roughly 40 percent of the state's jobs and gross domestic product (GDP).

Figure 1-1. Percent of Total WI Employment (Q1-Q3 2025)

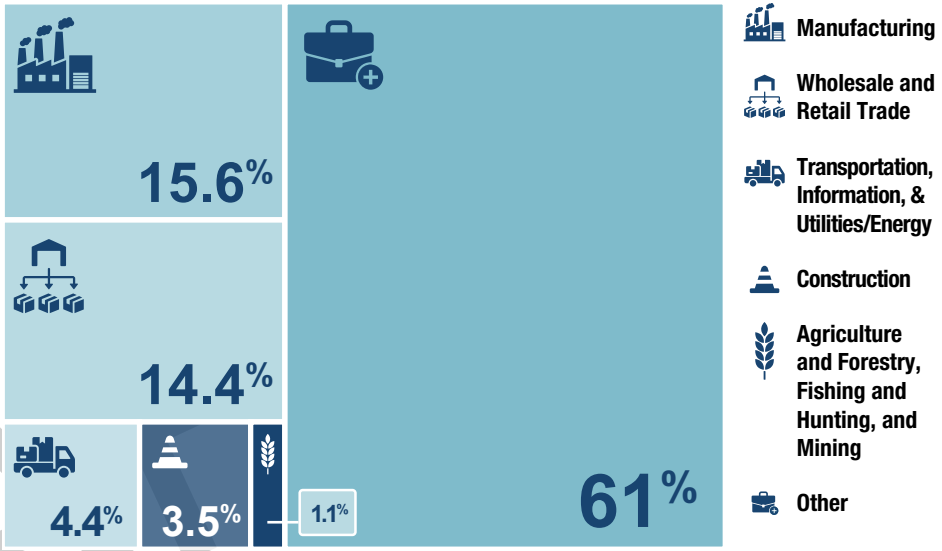
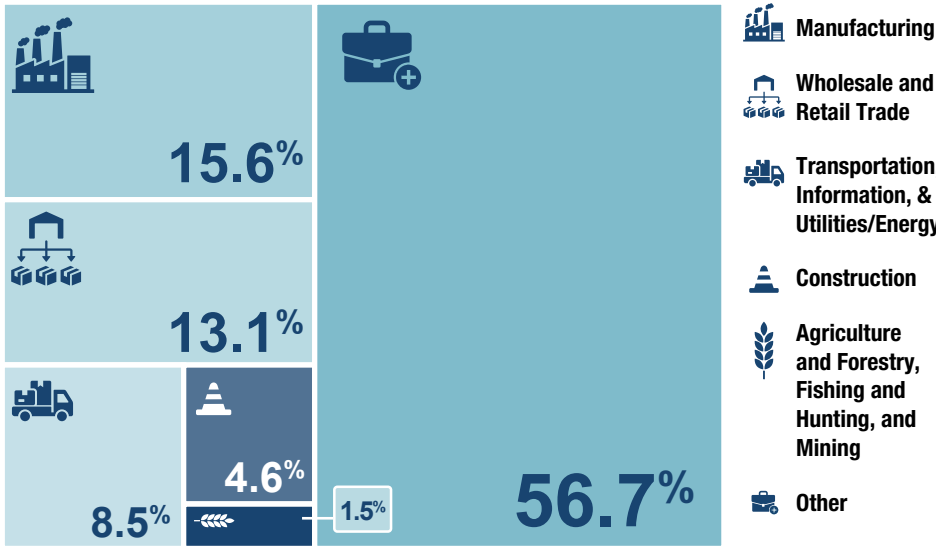


Figure 1-2. Percent of Total WI GDP 2025



System Inventory and Performance

Highway System

Wisconsin maintains 116,000 roadway miles, including 11,700 state, federal, and interstate highway miles. The National Highway Freight Network (NHFN) encompasses over 1,100 miles in Wisconsin. Key performance indicators track pavement quality, bridge conditions, safety metrics, and congestion levels. Large truck crashes and bottlenecks have been systematically identified, with bottlenecks prioritized for improvement.

Rail Network

The state's rail system includes 3,229 miles of track operated by Class I, regional, and short line railroads. WisDOT supports rail infrastructure through grant and loan programs, having awarded over $326 million in grants since 1980 for rail acquisition and rehabilitation projects.

Ports and Waterways

Wisconsin's 29 commercial ports and 230 miles of navigable waterways connect to the Great Lakes-St. Lawrence Seaway and Mississippi River systems. These waterways primarily handle bulk commodities including coal, grain, nonmetallic minerals, and project cargo, offering the most efficient method for moving bulk freight.

Aviation

Wisconsin's air cargo system includes multiple airports handling freight, with Milwaukee's new air cargo facility positioned to drive growth. The state is monitoring emerging technologies including Advanced Air Mobility (AAM) and electric vertical take-off and landing aircraft (eVTOL).

Pipelines

Over 80,000 miles of pipeline transport natural gas, petroleum products, and other chemicals, valued at $8.7 billion in 2025. Pipeline safety remains a priority, with incident response protocols in place.

Freight Trends and Challenges

The plan addresses several transformative trends:

E-Commerce Growth: Seasonally adjusted annual domestic e-commerce sales reached $1.23 trillion nationally in 2025, driving demand for last-mile delivery infrastructure

Workforce Challenges: Driver shortages and aging workforce demographics require innovative recruitment and training programs

Technology Integration: Advanced communications, automation, intelligent transportation systems (ITS), and data analytics are improving freight efficiency and safety

Supply Chain Resilience: The plan notes freight bottlenecks, and focuses federal freight funding on helping to resolve many of them

Implementation and Monitoring

Implementation responsibilities span WisDOT divisions, local governments, Tribal Nations, and private sector partners. The plan will be updated on a four-year cycle in accordance with federal requirements. Performance measures track progress across safety, system condition, utilization, and operational efficiency metrics.

Key implementation strategies include:

- Supporting WisDOT's overarching freight priorities
- Implementing mode-specific freight policies and strategies
- Using performance measures and data-driven decision-making
- Coordinating with public and private sector stakeholders
- Serving as a resource for freight information and best practices

For detailed information on specific projects, performance metrics, and stakeholder engagement, please refer to the complete plan chapters and appendices.

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2

Introduction

CHAPTER 2 ▪ WISCONSIN STATE FREIGHT PLAN

2027

2. Introduction

2.1 Plan Purpose

2.1.1 Why is Freight Transportation Important?

Wisconsin's freight system plays a vital role in the economic success of businesses and the quality of life of residents throughout the state. Almost every good that is produced or consumed in the state either touches or is otherwise dependent on the state's robust multimodal transportation system, including agricultural commodities, timber, manufactured products, groceries, medical supplies, retail merchandise, and fuel.

Wisconsin's long-term economic vitality depends on the efficient and cost-effective movement of freight over its extensive network of highways, bridges, railroads, ports and waterways, airports, and pipelines. Investment into a robust and diverse transportation system that safely and efficiently moves products around the state and to the global market is necessary for the state to remain competitive in the national and global markets.

Transportation infrastructure investments can support economic competitiveness by improving productivity; specifically, by enabling improvements in logistics.[1] Logistics is the management of the supply chain; delivering the right product from the right origin to the right destination, with the right quality and quantity, at the right schedule and price.[2] Improved freight transportation system performance can affect all components of logistics, including cost of carriage, transit times and delays, vehicle operating costs, the probability of on-time delivery, as well as the number of distribution centers needed.[3]

Understanding the importance of the freight transportation system to the economic success of the state can help decision makers pursue transportation investments that are both economically and socially beneficial for all of Wisconsin. These investments are likely to include a mix of approaches,



including adding new capacity, improving existing infrastructure, streamlining operations, and using intelligent transportation system (ITS) technologies to provide real-time travel information.[4]

2.2 National Freight Policy

Federal requirements for transportation infrastructure planning and investments are prescribed through the most recent federal transportation authorization bill, the Infrastructure Investment and Jobs Act (IIJA), as well as several final rulemakings issued by the U.S. Department of Transportation. IIJA was signed into law on November 15, 2021 and built upon the freight initiatives of previous authorization bills, including the requirement for states to develop state freight plans to be eligible for National Highway Freight Program funding.

2.2.1 Federal Freight Planning Guidance

Under the IIJA, a strong emphasis is placed on the incorporation of freight into transportation planning processes. It also identifies additional requirements for state freight plans. These plans must be updated every four years and meet the 17 requirements outlined in the IIJA. Table 2-1 shows the 17 IIJA state freight plan requirements and how the requirements are addressed.

Unless otherwise noted, content in this State Freight Plan reflects information and data available to WisDOT as of March 1, 2026.

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Table 2-1. IIJA State Freight Plan Requirements (49 USC 70202)

IIJA STATE FREIGHT PLAN REQUIREMENT	LOCATION IN STATE FREIGHT PLAN (SFP)
(1) An identification of significant freight system trends, needs, and issues with respect to the State;	**Chapter 6. Freight Trends and Challenges** provides a comprehensive review of statewide freight trends, including demographic shifts, supply chain disruptions, e-commerce growth, modal pressures, and emerging technologies. **Chapter 4. Economic Context of Freight** supplies foundational data on freight flows, modal shares, and commodity movements that define statewide freight needs and issues.
(2) A description of freight policies, strategies, and performance measures that will guide the freight-related transportation investment decisions of the State;	**Chapter 3. Vision, Goals, and Policies** defines WisDOT's freight policies and strategic direction across safety, resiliency, mobility, operations, and system enhancement. **Chapter 5. System Inventory and Performance Indicators** includes freight-related performance measures and system condition indicators that guide investment decisions.
(3) When applicable, a listing of (A) multimodal critical rural freight facilities and corridors designed within the State under 49 U.S.C 70103 (National Multimodal Freight Network); (B) Critical rural and urban freight corridors designed within the State under 23 U.S.C. 167 (NMFP);	**Chapter 5. System Inventory and Performance Indicators** identifies and maps Critical Urban Freight Corridors (CUFC), Critical Rural Freight Corridors (CRFC), and multimodal Draft NMFN facilities.
(4) A description of how the plan will improve the ability of the State to meet the national multimodal freight policy goals described in section 70101(b) of this title and the national highway freight program goals described in section 167 of title 23;	**Chapter 3. Vision, Goals, and Policies** align WisDOT's freight goals with federal multimodal freight policy goals, including safety, resiliency, and efficiency. **Chapter 2. Introduction** summarizes federal freight goals and explains how the SFP integrates national policy direction.
(5) A description of how innovative technologies and operational strategies, including freight intelligent transportation systems, that improve the safety and efficiency of the freight movement, were considered;	**Chapter 6. Freight Trends and Challenges** discusses freight ITS, automation, electrification, V2X, and other emerging technologies that improve freight safety and efficiency.
(6) In the case of roadways on which travel by heavy vehicles (including mining, agricultural, energy cargo or equipment, and timber vehicles) is projected to deteriorate the condition of the roadways substantially, a description of improvements that may be required to reduce or to impede the deterioration;	**Chapter 5. System Inventory and Performance Indicators** describes pavement and bridge conditions, including impacts from heavy agricultural, timber, mining, and energy vehicles.

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IIJA STATE FREIGHT PLAN REQUIREMENT	LOCATION IN STATE FREIGHT PLAN (SFP)
(7) An inventory of facilities with freight mobility issues, such as bottlenecks, within the State, and for those facilities that are state-owned or operated, a description of the strategies the State is employing to address those freight mobility issues;	**Chapter 5. System Inventory and Performance Indicators** provides an inventory of freight bottlenecks, chokepoints, and mobility constraints across modes. **Chapter 7. Network and System Needs** is a discussion on multi-modal bottlenecks and freight issues along with resolutions that help alleviate congestion.
(8) Consideration of any significant congestion or delay caused by freight movements and any strategies to mitigate that congestion or delay;	**Chapter 6. Freight Trends and Challenges** freight-related congestion, including last-mile constraints, e-commerce traffic, and multimodal delays. **Chapter 5. System Inventory and Performance Indicators** presents congestion metrics and outlines operational and infrastructure strategies to mitigate delay.
(9) A Freight Investment Plan that, subject to 49 U.S.C. 70202(c)(2), includes a list of priority projects and describes how funds made available to carry out 23 U.S.C. 167 would be invested and matched;	**Chapter 8. Freight Investment Implementation Plan** describes the prioritization process for the selection of freight investments. **Appendix A. Freight Investments** illustrates which WisDOT freight projects will utilize NHFP funds.
(10) The most recent commercial motor vehicle parking facilities assessment conducted by the State under 49 U.S.C. 70202(f);	**Chapter 5. System Inventory and Performance Indicators** summarizes statewide truck parking needs, safety concerns, and findings from the most recent truck parking assessment.
(11) The most recent supply chain cargo flows in the State, expressed by mode of transportation;	**Chapter 4. Economic Context of Freight** provides statewide cargo flows by mode, including tonnage, value, and commodity breakdowns. **Chapter 5. System Inventory and Performance Indicators** expands modal context by describing multimodal facilities that support cargo flows.
(12) An inventory of commercial ports in the State;	**Chapter 5. System Inventory and Performance Indicators** identifies Wisconsin's commercial ports, their capabilities, and their roles in statewide freight movement.
(13) If applicable, consideration of the findings or recommendations made by an multi-state freight compact to which the State is a party under 49 U.S.C 70204	**Chapter 2. Introduction** documents Wisconsin's participation in multi-state freight coordination bodies, including the Mid-America Freight Coalition (MAFC) and the Mid America Association of State Transportation Officials (MAASTO), and incorporates related regional findings and recommendations. This chapter also summarizes consultation with the Wisconsin Freight Advisory Committee (FAC).

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IIJA STATE FREIGHT PLAN REQUIREMENT	LOCATION IN STATE FREIGHT PLAN (SFP)
(14) The impacts of e-commerce on freight infrastructure in the State;	**Chapter 6. Freight Trends and Challenges** examines e-commerce growth, warehouse expansion, last-mile delivery pressures, and related infrastructure impacts.
(15) Considerations of military freight;	**Chapter 5. System Inventory and Performance Indicators** includes military freight movements within modal flow discussions and identifies infrastructure supporting military logistics.
(16) Strategies and goals to decrease – (A) The severity of impacts of extreme weather and natural disasters on freight mobility, (B) The impacts of freight movement on local air pollution, (C) The impacts of freight movement on flooding and stormwater runoff, (D) The impacts of freight movement on wildlife habitat loss, and	**Chapter 3. Vision, Goals, and Policies** defines environmental and resiliency goals addressing stormwater and extreme weather impacts.
(17) Consultation with the State Freight Advisory Committee, if applicable.	**Chapter 2. Introduction** documents FAC consultation, meeting summaries, stakeholder feedback, and integration of FAC recommendations into the SFP.

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2.2.2 National Freight Goals

The IIJA requires state freight plans to include a description of how it will improve the ability of the state to meet the national multimodal freight policy goals described in 49 U.S.C. 70101(b) and the national highway freight program goals described in 23 U.S.C. 167. These goals are summarized below:

- To identify and invest infrastructure improvements, policies, and operational innovations.
- To improve the economic efficiency and productivity of the NHFN.
- To improve the safety, security, efficiency, and resiliency of freight transportation in rural and urban areas.
- To achieve, maintain, and improve the state of good repair on the National Multimodal Freight Network (NMFN).
- To use innovation and advanced technology to improve the safety, efficiency, and reliability of the NMFN.
- To improve the reliability of freight transportation.
- To improve the short- and long-distance movements of goods.
- To improve flexibility of states to support multi-state corridor planning and the creation of multi-state organizations to increase the ability of states to address multimodal freight connectivity.
- To reduce the adverse environmental impacts of freight movement on the NMFN.
- To pursue the goals described in this subsection in a manner that is not burdensome to state and local governments.

The National Freight Strategic Plan, released in May 2026, defines the U.S. DOT's vision and goals for the Nation's multimodal freight system and defines strategies to achieve those goals, as shown in Table 2-2. The U.S. DOT uses this plan to guide national freight policy, programs, initiatives, and investments; inform state freight plans; and identify freight data and research needs. It also provides a framework for increased cross-sector, multijurisdictional, and multimodal coordination and partnerships. The National Freight Strategic Plan's goals and objectives also inform the Wisconsin State Freight Plan.

Table 2-2. National Freight Strategic Plan Goals & Strategic Objectives

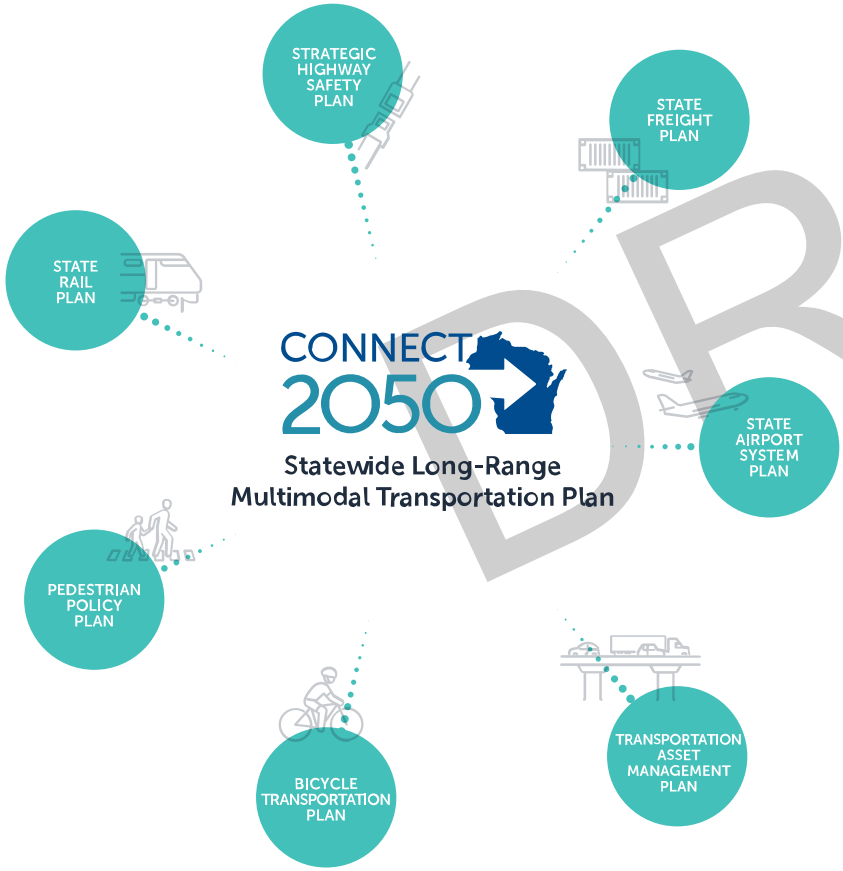
GOAL	STRATEGIC OBJECTIVES
A Safe Freight System: Reduce or eliminate serious injuries and fatalities of the freight system.	• Focus Federal safety resources on the highest-severity freight risks • Accelerate deployment of proven safety technologies in freight operations and infrastructure • Strengthen freight-specific hazardous materials safety and emergency preparedness • Improve safety outcomes through targeted freight safety data and risk analysis
An Efficient Freight System: Improve system reliability and streamline government regulation.	• Reduce delay and unreliability at nationally significant freight bottlenecks • Better utilize existing freight infrastructure through improved supply chain visibility • Streamline Federal processes affecting freight project delivery and operations • Promote integrated, multimodal freight planning and investment
A Secure Freight System: Ensure the integrity of our Nation's supply chains in support of national defense and economic prosperity.	• Protect and enhance freight assets critical to national defense mobility • Reduce cargo theft, fraud, and physical security risks in freight supply chains • Strengthen cybersecurity and operational security of freight systems • Support secure freight corridors for strategic energy, industrial, and resource supply chains
A Resilient Freight System: Reduce risks to the freight system and improve our response approaches.	• Identify and mitigate single points of failure in the National Multimodal Freight Network • Increase redundancy and rerouting capability on critical freight corridors • Integrate risk and criticality analysis into freight planning and investment decisions • Strengthen freight-focused preparedness, response, and recovery practices
An Innovative Freight System: Modernize freight infrastructure and foster game changing technologies.	• Support safe testing and deployment of advanced freight technologies • Promote interoperable digital standards for freight data and operations • Direct Federal research and pilots toward high-impact freight use cases • Lower adoption barriers of proven innovations across the freight network
A Capable Freight Workforce: Build a skilled workforce for the 21st Century and improve quality of life.	• Strengthen workforce entry pathways into core freight concentrations • Support upskilling and reskilling for a technology-enabled freight system • Improve freight working conditions to support retention and safety • Improve freight workforce data and planning

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2.3 Relationship to Wisconsin's Family of Plans

In addition to aligning with and supporting national freight goals, the goal of the Wisconsin State Freight Plan is to also seamlessly integrate into Wisconsin's Long Range Transportation Plan, Connect 2050, and the associated Wisconsin Family of Plans as shown in Figure 2-1.

Figure 2-1. Wisconsin's Family of Plans



2.3.1 Connect 2050

The Wisconsin State Freight Plan is one of seven plans that fall under Wisconsin's **Connect 2050**, adopted in May 2022. Connect 2050 is the statewide, multimodal, long-range plan that facilitates decision-making for improvements to and investments in all types of transportation throughout Wisconsin from now to 2050—from roads to ports to rail to sidewalks and all other transportation systems and infrastructure.

Connect 2050 is:

- **Long-range.** It looks to the future: to 2050.
- **Statewide.** It has a broad reach; its vision, goals and objectives will guide WisDOT's decision-making for all of Wisconsin and for all people.
- **Multimodal.** It sets goals and objectives that apply to all modes and means of transportation in Wisconsin, including cars, roads, transit, biking, walking, rail, aviation, and water.

Connect 2050 contains eight primary goals:

NUMBER	GOAL
Goal 1	Pursue sustainable long-term transportation funding
Goal 2	Focus on partnerships
Goal 3	Pursue continuous improvement and expand data-driven decision-making processes
Goal 4	Increase options, connections, and mobility for people and goods
Goal 5	Maximize technology benefits
Goal 6	Maximize transportation safety
Goal 7	Maximize transportation system resiliency and reliability
Goal 8	Balance transportation needs with those of the natural environment, socioeconomic, historic, and cultural resources

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2.3.2 Wisconsin Rail Plan 2050

The Wisconsin Rail Plan (WRP) is a statewide long-range rail transportation plan that focuses on freight rail and passenger rail through the year 2050. WRP includes policies for railroad crossings, freight rail, Wisconsin's state-owned rail system, long distance passenger rail, intercity rail, and commuter rail. The plan also discusses rail data trends, existing and possible future service levels, rail system conditions, and commodity freight movements. The WRP's vision is:

> ***WisDOT envisions a rail transportation system that enhances the state's economic productivity, competitiveness, and quality of life through the movement of people and goods safely, reliably, and efficiently, while minimizing impacts to the natural environment.***

2.3.3 Strategic Highway Safety Plan

The Strategic Highway Safety Plan (SHSP) is a data-driven, statewide coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. It identifies the state's key safety needs and guides investment decisions towards strategies and countermeasure with the most potential to save lives and prevent injuries.

The Wisconsin SHSP supports WisDOT's vision for transportation safety in Wisconsin, as identified in Connect 2050.

> ***WisDOT has always prioritized transportation safety. A safe transportation system benefits all of Wisconsin, whether by providing safe highways for freight movement and vehicular traffic, safe ways for pedestrians to cross roadways, or safe and secure airport facilities.***

2.4 Stakeholder Engagement

Multiple factors and resources are considered when executing initiatives and making decisions regarding how to identify freight trends and issues, and to prioritize freight improvements in Wisconsin.



WisDOT's Fall 2025 Freight Advisory Committee meeting

Engagement with Wisconsin's key stakeholders complements the raw data analysis efforts summarized in this plan. Engagement and coordination with stakeholders are critical steps towards the identification of concerns, strategies, and improvements deemed essential to the continued efficient movement of freight in and through the state.

2.4.1 Ongoing Stakeholder Engagement

In addition to the engagement efforts completed during the development of the Wisconsin State Freight Plan, WisDOT routinely supports and takes part in various other freight stakeholder activities.

2.4.1.1 Stakeholder Consultation

WisDOT's consultation process is designed to inform the department's decisions and gather feedback from numerous stakeholders. Throughout the year, WisDOT meets with organizations—many of whom are listed on the following pages—to discuss plans, processes, and projects, the impacts they might have on different communities, and potential mitigation strategies. Additionally, discussions with local officials can help ensure alignment between the state and local road systems, and talks with private sector representatives can provide insight on freight industry trends.

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2.4.2 Wisconsin's Freight Stakeholders

ROUTINE STAKEHOLDER:

Federal Organizations

- United States Department of Transportation (U.S. DOT)
- Federal Aviation Administration (FAA)
- Federal Highway Administration (FHWA)
- Federal Motor Carrier Safety Administration (FMCSA)
- Federal Railroad Administration (FRA)
- Pipeline and Hazardous Materials Safety Administration (PHMSA)
- Maritime Administration (MARAD)
- Surface Transportation Board (STB)
- United States Department of Defense (USDOD) including the United States Army Corps of Engineers (USACE)
- United States Department of Energy (DOE)
- United States Department of Homeland Security (DHS)
- United States Coast Guard (USCG)
- Great Lakes-St. Lawrence Seaway Corp.

ROUTINE STAKEHOLDER:

Regional and Local Partners

- Native American Indian Tribal Nations
- Rail Transit Commissions (RTCs)
- Metropolitan Planning Organizations (MPOs)
- Regional Planning Commissions (RPCs)
- Wisconsin Regional Economic Development Organizations

ROUTINE STAKEHOLDER:

Wisconsin State Government Organizations

- Office of the Governor
- Wisconsin Legislature
- Department of Administration
- Department of Transportation
- Department of Agriculture, Trade and Consumer Protection
- Department of Military Affairs
- Department of Natural Resources
- Public Service Commission
- Office of the Commissioner of Railroads
- Wisconsin Economic Development Corporation

ROUTINE STAKEHOLDER:

Local Government Partners

Wisconsin's local governments include counties, cities, villages, and towns. There are 1,922 communities that are units of general-purpose local government. Wisconsin is considered a "home rule state." Local governments in home rule states are free to pass laws and ordinances as they see fit to further their operations, within the bounds of the state and federal constitutions. WisDOT coordinates with representatives from the following on a wide array of transportation-related matters (e.g. roadway construction, oversize-overweight vehicle routing, etc.).

ROUTINE STAKEHOLDER:

Private Sector Partners

WisDOT has committed to forging strategic partnerships with the freight industry to facilitate efforts among multiple stakeholder groups. WisDOT's Freight Advisory Committee serves as a key example of the department's efforts to bring multiple stakeholder groups together to discuss complex freight transportation issues, problems, and opportunities.

WISCONSIN FREIGHT ADVISORY COMMITTEE

- Comprised of more than 40 member organizations
- Committee established at Wisconsin's 2014 Governor's Freight Industry Summit to help inform WisDOT on issues that impact freight mobility and to provide a voice for the freight sector on the development of freight-related policies, processes, and projects.

EMPLOYER ESTABLISHMENTS (202,514 employer establishments in WI)

- Single physical location at which business is conducted or where services or industrial operations are performed.

TRADE ASSOCIATIONS (Hundreds of trade associations in WI)

- An industry trade group, business association, or sector association, is an organization founded and funded by businesses that operate in a specific industry.

ROUTINE STAKEHOLDER:

Public Stakeholders

Engaging public stakeholders will collect diverse perspectives on the freight system and will identify how freight-dependent industries use the system, current needs and issues, and potential opportunities.

WisDOT remains committed to engaging with community organizations, businesses, and interested citizens. A comprehensive list of organizations WisDOT reached out to during the public comment period is in Appendix B.

ROUTINE STAKEHOLDER:

Multi-State Freight Compacts

The movement of freight often involves multiple transportation modes and routes that cross several states. To move freight efficiently, either regionally, nationally, or globally, freight must cross jurisdictional boundaries with as few impediments as possible. Multi-state freight organizations provide a venue to plan and invest where the benefits of coordination and communication accrue to several states and stakeholder groups. WisDOT actively participates in several multi-state freight-focused organizations that have missions aimed at improving freight safety and mobility.

- Mid-America Freight Coalition (MAFC)
- Great Lakes Regional Transportation Operations Coalition
- Lake Michigan Interstate Gateway Alliance
- Upper Mississippi River Basin Association
- American Great Lakes Ports Association
- Mid America Association of State Transportation Officials (MAASTO)

ROUTINE STAKEHOLDER:

Freight Advisory Committee

- The Freight Advisory Committee (FAC) was established to assist the department on issues that impact freight mobility and provide a voice to private sector representatives on the development of freight-related policies, processes, and projects.
- FAC members include representatives from freight-related sectors including industry, agriculture, logistics, warehousing, economic development, regional planning (MPO/RPC), local government, and transportation. Each FAC member serves for a period of up to two years. Non-voting members from government offices provide guidance from federal and state programmatic and regulatory perspectives.
- The FAC's role is advisory, focusing on assisting the department in understanding the current and emerging concerns from freight sector users, providers, and regulators.

2.4.3 Plan Engagement Process and Phases

A comprehensive public involvement process helps ensure that long-range plans and recommendations reflect interests, issues, and concerns from the state's transportation system users. Early and continuous public engagement involved gathering input from a variety of stakeholders and the general public throughout the plan development process.

Wisconsin is home to a variety of freight stakeholders including private industry, transportation users, and government interests at every level. The engagement process for the plan focused on encouraging participation and soliciting feedback from Wisconsin freight stakeholders through a variety of methods:

- **Project Website:** A project website was developed via www.wisdotplans.gov to provide a public facing portal describing the status and schedule of the Wisconsin State Freight Plan and as a means of communicating additional information regarding freight issues in Wisconsin. The website also provided an opportunity to request further information about the plan via email.
- **Targeted Outreach:** In addition to presentations to the Freight Advisory Committee, WisDOT staff conducted presentations to various stakeholder groups throughout 2026.
- **Virtual Engagement Materials:** A separate self-paced virtual engagement "open house" was developed to allow users to review plan materials and provide comments regarding the Wisconsin freight system.
- **Social Media:** WisDOT social media was used to help broadcast information about the plan's status and opportunities for comment.
- **Comment Management:** Comments and feedback received during the SFP development process were collected and managed using a secure online form embedded into a custom-built webpage.

2.4.3.1 Plan Development Schedule

The development of the Wisconsin State Freight Plan was split into four key timeframes, as shown in Figure 2-2, based around the initial development of the plan, gathering feedback, developing a final draft of the document, and submitting the final plan to U.S. DOT for approval.

Figure 2-2. Wisconsin State Freight Plan Development Phases

SPRING-LATE FALL 2025 — Initial Presentations and SFP Development

- Multiple presentations to the Wisconsin Freight Advisory Committee
- Begin outlining the plan and gathering data
- Notice of Intent released December 2, 2025

WINTER 2025-2026 — SFP Development and Incorporation of Feedback

- Finalize the plan outline
- Continue gathering data and begin drafting plan content
- Begin incorporating stakeholder feedback

SPRING-SUMMER 2026 — Finalization of Draft SFP

- Draft Public Involvement Plan released June 2, 2026
- Final Public Involvement Plan released August 11, 2026
- Presentations to Wisconsin Freight Advisory Committee and other stakeholder groups
- Continue gathering data
- Finalize incorporation of stakeholder feedback
- Finalize draft plan document

FALL-WINTER 2026 — Release of Draft SFP for Comment and Submission of Final SFP

- Final presentations to Freight Advisory Committee and other stakeholder groups
- Release draft plan document for public comment
- Collect stakeholder and public comments and incorporate as warranted
- Submit final Wisconsin State Freight Plan to U.S. DOT

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3

Vision, Goals, and Policies

CHAPTER 3 ▪ WISCONSIN STATE FREIGHT PLAN

2027

3. Vision, Goals, and Policies

3.1 Vision

WisDOT's vision statement for the Wisconsin State Freight Plan, first developed as part of the 2018 State Freight Plan and maintained through the 2023 iteration, remains consistent:

> ***WisDOT envisions a multimodal freight transportation system that enhances the state's economic productivity, competitiveness, and quality of life through the movement of goods safely, reliably, and efficiently, while minimizing impacts to the natural environment.***

This statement serves as the principal guide for this Plan and its goals, objectives, policy statements, and strategies. The statement also supports the vision statement of the statewide long-range transportation plan (LRTP), Connect 2050:

> ***WisDOT envisions an integrated multimodal transportation system that maximizes the safe and efficient movement of people and products throughout the state in a way that enhances economic productivity, transportation accessibility and the quality of Wisconsin's communities while minimizing impacts to the natural environment and socioeconomic, historic, and cultural resources.[1]***

The Wisconsin State Freight Plan links freight transportation needs to departments activities, informs future investment decisions, and will advance the safe and efficient movement of freight throughout Wisconsin.

3.2 Goals

The foundational goals of the 2027 Wisconsin State Freight Plan were adapted from Connect 2050, which is WisDOT's statewide multimodal long-range transportation plan. They also reflect federal guidance, as codified under the Infrastructure Investment and Jobs Act (IIJA). With an emphasis on a system-level approach to policies and strategies that cover all freight modes, the overarching goals for the Plan are as follows:

1. **Enhance** safety, security, & resiliency
2. **Ensure** system preservation & enhancement
3. **Enhance** system mobility, operations, reliability, efficiency, & connectivity

In support of these goals, WisDOT developed the following strategic approaches to guide policy development:

- **Position** WisDOT to facilitate the safe and efficient movement of freight through data-driven policies and practices that improve safety and operational efficiency
- **Ensure** avenues exist to receive and address stakeholder concerns, challenges, and emerging trends to help instruct prudent planning and programming for freight
- **Integrate** freight data and stakeholder input into WisDOT's planning, policies, programming, and operational decisions
- **Ensure** reliable statewide access to regional and national markets is maintained and improved through support of multimodal connections to freight facilities and services

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3.3 Freight Policies

All Modes

1. Promote a safe multi-modal freight network within WisDOT to understand freight needs across the state and to integrate freight transportation policies into department planning and investment decision-making processes

Promotion of a multi-modal freight focus within the department will support the state's effort to maintain and enhance its competitive role within regional, national, and global markets, and strategically place the state at a competitive advantage to apply for federal funding for freight projects that address congestion and safety. Awareness of key freight issues is shared through multi-divisional forums such as the Freight Technical Advisory Committee and are incorporated into other WisDOT modal and policy plans. These plans, like the State Freight Plan, drive investment decisions.

2. Partner with law enforcement, other agencies and local officials to coordinate emergency response

The Office of Wisconsin Emergency Management (WEM) coordinates safety concerns in Wisconsin, including coordinating emergency response efforts using an "all hazards" approach. WEM contracts with and manages twenty Regional HAZMAT Response Teams to provide a high level of response capability to the state's communities. These teams may be activated for an incident involving a HAZMAT spill, leak, explosion, injury, or the potential of an immediate threat to life, property, or the environment. County-level response teams respond to lower-level HAZMAT incidents that exceed the capabilities of standard fire departments.

If an incident occurs and agencies such as the National Transportation Safety Board are involved, WisDOT cooperates with the team investigating the incident.

3. Coordinate with stakeholders on planning and operations for energy emergencies.

Actions focus on providing emergency support as required and identifying the issues faced in exercising the Utility Accommodation Policy. WisDOT is engaged in a support capacity in the event of an energy emergency. This role is primarily focused on coordinating and supporting the movement of needed energy inputs. Should pipeline service be disrupted, WisDOT has a role in ensuring vehicles with weight or hours of service waivers are able to travel throughout the state. Additionally, WisDOT will support the state's Energy Assurance Plan. WisDOT may identify additional justification for projects that are both needed and would positively benefit the ability of the state to respond to an energy emergency.

All Modes (continued)

4. Partner with the Department of Administration, Department of Natural Resources, environmental agencies, consumers, and businesses to increase transportation energy use efficiencies, and stability

This policy reflects WisDOT's long-standing practices and strategies, originally outlined in Connections 2030. Based on the assessment that prices of fuel- and oil-related products will trend higher in the medium term, WisDOT will:

- Track changes and analyze responses to the state's transportation energy use and costs
- Promote more efficient use of petroleum-based fuels and viable alternatives
- Encourage local governments to improve vehicle efficiencies
- Seek to adjust WisDOT's transportation revenue stream to respond to shifting trends

5. Continue to support Metropolitan Planning Organizations, Regional Planning Commissions, and local partners in the planning and implementation of their freight policies.

In addition to the statewide long-range plan, Wisconsin's 14 MPOs and 9 RPCs develop long-range plans which address/discuss freight transportation needs for urban and rural areas in Wisconsin. In order to have a comprehensive transportation system that enables the movement of freight, it is imperative that state, regional, and local plans harmonize and support each other. Many of the policies in these plans share common themes, concerns, and recommendations. Specifically, WisDOT will coordinate with MPOs, RPCs and local partners in the planning and implementation of their freight policies, including the following themes:

- Local Connectivity
- Safety and Security
- Modal Improvements
- System Operations and Management
- Economic Development
- Partnerships and Performance Measures

All Modes (continued)

6. Leverage the freight data, tools, and methods developed through the freight plan to help implement SFP policies and strategies and inform project prioritization and investment decisions

During development of Wisconsin's first SFP, WisDOT began advancing various data, tools, and methods that continue to be used and refined to aid in identifying freight mobility needs and support data-driven investment decisions.

WisDOT will continue to leverage transportation data to define Wisconsin's critical corridors and facilities and develop a freight-oriented system where the infrastructure promotes the safe, efficient, and reliable movement of goods.

For example, freight data informs the department's "Alpha Process", which helps determine which projects statewide should be recommended to the Transportation Projects Commission for study.

7. Promote the awareness of transportation-related workforce training opportunities and, where appropriate, provide support to those training centers

Based upon repeated industry feedback, both through our Freight Advisory Committee and other settings, WisDOT is aware of transportation-related labor shortages throughout Wisconsin. The private sector has requested WisDOT take a role, as appropriate, in promoting solutions to these challenges to encourage continued economic growth in Wisconsin.

8. Investigate techniques and technologies to alert drivers of upcoming low clearance bridges

From 2020 to 2024, there were 330 crashes involving trucks that struck bridges across Wisconsin. WisDOT will consider incorporating means to alert drivers of upcoming bridges as part of improvement projects.

Highways & Local Roads

1. Plan and prepare for WisDOT's prompt and consistent response to incidents

WisDOT's Traffic Management Center (TMC) has expanded the use of technology and coordinated communication efforts. The center also coordinates statewide emergency responses through a tollfree telephone number available to law enforcement agencies.

In urban areas, WisDOT will continue to use Intelligent Transportation Systems (ITS) technology for faster detection and response to incidents. Statewide, WisDOT will continue to invest in communication system redundancy and integration throughout the plan period. This includes interoperability systems and standards that allow several agencies and responders to exchange communications across a single channel. As an example, a priority initiative is to proactively detect wrong way drivers with help from law enforcement and warn motorists of the risk through use of ITS.

While secondary to safety considerations, enhancements to incident response systems and procedures will also help to mitigate unexpected or non-recurring congestion. Rapid detection and response to crashes will also reduce the number of secondary crashes that occur in congested situations. The TMC has also developed best practices for incident management. WisDOT supports the adoption of such practices and will support a regular review process to update these practices.

2. Implement work zone and lane-closure management strategies and tools to maintain safety for workers and roadway users, while minimizing impacts

Conducting highway maintenance activities can sometimes disrupt traffic flow. Work zone management strategies help minimize disruption, preserve safety for workers, and maintain state trunk highway system reliability. Oftentimes, work zone management requires creativity and flexibility. In response, WisDOT performs more and more of its maintenance work during non-peak traffic hours, including nighttime hours when traffic volumes are typically lower. WisDOT also uses mainstream ITS as a tool for other types of routine highway operations activities, including winter weather activities and work zone management. WisDOT's performance measure related to on-time performance sets a standard for concluding construction projects' timeframes in the least disruptive manner possible by effectively utilizing department and contractor resources.

3. Support communications along state highway corridors of freight significance to ensure drivers can remain informed of changing conditions

While cellular phones, text messaging, and data sharing have created great efficiencies in freight operations, the coverage of those networks is not complete in the state. This places operators along portions of our STH Backbone System at a disadvantage for remaining in coverage with their offices and with Wisconsin's traffic operations system. As new generations of cellular technology are introduced, basic coverage along key corridors should not be neglected.

Highways & Local Roads (continued)

4. Support greater use of technologies to improve the safety and efficiency of operations along corridors with high freight movement frequencies

WisDOT has a strong history of using technology to maintain and improve the transportation system. Beyond cellular systems, many other communication, detection, and safety technologies are being developed and implemented for freight applications. Broadening the use of technologies such as Weigh-In-Motion, third-party bypass providers, queue warning systems, and dynamic message signs sets the framework for researching and developing next-generation technologies and supporting their widespread use.

5. Support an increase in the availability of truck parking and related infrastructure at state-owned facilities and raise the awareness of its availability

Although access to safe and convenient parking areas for trucks is essential for a robust freight transportation network, truck drivers consistently have difficulty finding areas to safely rest. In 2013, a MAP-21 survey revealed that 83 percent of drivers routinely took longer than 30 minutes to find parking. This presents two potential problems. First, this loss of productivity while searching for parking adds six percent or more to labor costs associated with moving goods through the national freight network. Second, drivers who have not located parking before reaching their hours-of-service limits may park illegally or unsafely, often on the shoulders of highways, along off-ramps, or at abandoned facilities.

In response to these concerns, a Mid-American Association of State and Transportation Officials (MAASTO) partnership of Kansas, Indiana, Iowa, Kentucky, Michigan, Minnesota, Ohio, and Wisconsin is operating a multistate Regional Truck Parking Information and Management System (TPIMS). TPIMS uses sensors and cameras to deliver real-time information about the availability of truck parking. TPIMS monitors over 650 truck parking stalls in Wisconsin. WisDOT also completed a study in 2026 to identify current and future truck parking needs for additional parking spaces.

6. Identify freight-specific safety concerns and develop strategies for solutions in coordination with the Strategic Highway Safety Plan

WisDOT will examine motor carrier inspection and crash records (for highway modes), federal safety reports (for highway and non-highway modes) and other available sources to develop and prioritize a list of the safety concerns that are specific to freight equipment and operations. By understanding the types of problems and the scale of their impacts to safety, WisDOT can better target efforts to improve safety in the freight transportation sector, as well as the traveling public as a whole. This process will be integrated with the Department's Strategic Highway Safety Plan.

Highways & Local Roads (continued)

7. Work with local entities to identify and address key safety issues on the local system

WisDOT will continue its efforts to improve the safety of the state's roadway network, including Wisconsin's local roads and structures. The department's role and responsibility varies depending on the location, however, addressing safety needs is critical regardless of where they occur.

For the local road system, the department will work with local governments to manage available safety funding and program safety improvements, provide data, enhance analytical tools, and provide technical assistance to address safety issues.

8. Continue to improve safety standards for infrastructure

Roadway engineering improvements during the past several decades have changed the mix of contributing factors and injury outcomes for traffic crashes. Design tools such as divided highways, wider paved shoulders, rumble strips, clear zones, and pavement markings have been proven to reduce the number and severity of traffic crashes; these tools can also reduce negative impacts from interactions between roadway condition, environmental factors, and driver error. These tools help keep vehicles on the road and minimize the consequences of leaving the road – two key department safety goals. Roadway engineers evaluate the use of design approaches that have a positive influence on driver behavior. This requires engineers to anticipate potential problems and determine how drivers could avoid them, while at the same time identifying existing problems and designing the facilities to eliminate or reduce their impacts. WisDOT will continue to improve safety standards for infrastructure.

9. Continue to improve design standards for infrastructure

Highway design standards are researched, reviewed, and updated on a continual basis to ensure characteristics such as speed, lane width, shoulder width and slope, and stopping-sight distance are consistent with national standards and best practices. The dimensions of appropriate design vehicles (e.g., specific trucks) will be considered as part of improvement projects.

10. Implement cost-effective maintenance activities on Wisconsin's state trunk highway infrastructure

Pavement that is in good condition promotes the safe and efficient movement of people and products throughout Wisconsin. Comprehensive pavement condition data is necessary to determine cost-effective maintenance and improvement strategies that extend the life and serviceability of the state trunk highway system. WisDOT analyzes pavement condition data to determine where and when repairs are needed, and to determine viable alternatives. Besides pavement, WisDOT conducts regular inspections of state-owned buildings at roadside facilities such as Safety Rest Areas and Safety Weight Enforcement Facilities. Data gathered from these inspections is entered into the Facility Asset Management Information System (FAMIS), which helps manage when timely and cost-effective repairs need to occur. In addition, the department assesses the metropolitan planning organization recommendations published in each organization's long-range transportation plan when assessing priority needs.

Highways & Local Roads (continued)

11. Preserve Wisconsin's state trunk highway system infrastructure

Much of Wisconsin's Interstate highway system was originally designed and constructed in the 1950s and 1960s, and some bridges on the state trunk highway system (which includes the Interstate highway system) can date back to the 1930s and 1940s. Since then, user demands have increased, and in some cases, designs that were applied to address anticipated demands are now outdated. In response, WisDOT's efforts continue to focus on maintaining and preserving the system, along with addressing safety deficiencies, traffic flow concerns, resiliency, and critical design features. If pavement replacement continues over the typical lifespan of the infrastructure, roads can last up to 60 years (prior to complete reconstruction), and bridges can last up to 75 years. However, keeping pace with both emerging and existing needs remains a challenge.

12. Continue to revise the Facilities Development Manual (FDM) to more clearly include freight considerations in its project development guidance

The department's Facilities Development Manual (FDM) provides policy, procedures, design standards, and general guidance on the facilities development process required by WisDOT. It is applicable to all types of highway improvements on the STH system, other street/highway systems for which federal-aid highway funds may be utilized, state facilities funded with state funds administered by the department, and other highways and roads for which the department may act as an administrative agent.

WisDOT will continue to review and revise the FDM to better reflect freight considerations in its guidance as needed. The intent is to update and close gaps in the FDM so projects can be advanced that reflect the needs of, and not negatively impact, the freight community.

13. Preserve a sub-system of Wisconsin's State Highways that accommodate over-height loads (up to 20 feet), over-weight, and oversize loads

Wisconsin's transportation system has experienced considerable growth in OSOW freight demand over the past few decades and this trend is expected to continue. The size and frequency of OSOW vehicles and loads increases stress on bridges and pavements and produces highway operational considerations specific to OSOW movements. These concerns extend from state and federal highways to many local roads and bridges with weight and size restrictions that are posted below legal limits. Wisconsin, along with many other states (including neighboring states), has made significant strides in developing a transportation system that accommodates OSOW loads. However, additional efforts are required to improve the safe and efficient movement of these loads, as well as the redundancy of the whole OSOW network – both within the state and across state lines.

Updates to the department's Facilities Development Manual will provide direction and recommendations on appropriate design considerations, and preservation of facility attributes to maximize the department's investments and ensure that freight loads can be accommodated safely and appropriately.

Highways & Local Roads (continued)

14. Investigate ways to simplify, streamline, and provide more state highway permitting options

In Wisconsin, a permit is issued to a carrier to allow operation of a vehicle or load that exceeds the statutory limits on STHs. Permits are generally issued for non-divisible loads, with some exceptions. Wisconsin also places restrictions on certain routes for vehicles traveling on permits. WisDOT continually investigates options to simplify, streamline, and provide more permitting options. Local governments indicate they would like cooperation and coordination as permits are issued such that they can plan for large freight loads on their community roads and streets. WisDOT can also explore permit options needed for intermodal (e.g., 5/6 axle permit options) movements.

15. Conduct corridor studies as approved by the Transportation Projects Commission

Before a project is designed and constructed, WisDOT conducts an environmental study of the project corridor. Corridor studies approved by the Transportation Projects Commission (TPC) have the potential to become part of the Major Highway Development Subprogram; these are generally the most complex, costly, and potentially controversial projects initiated by WisDOT. These are often projects occurring on roadways with high freight importance. WisDOT seeks to complete studies approved by the TPC to ensure that potential improvements with significant freight impacts are prioritized and brought forward as candidates for inclusion in the state biennial budget.

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Highways & Local Roads (continued)

16. Accommodate freight volumes, reduce congestion, ensure efficient system access for businesses, and improve reliability and safety statewide via infrastructure investments

WisDOT invests significant resources on large infrastructure projects statewide. These projects do not just focus on capacity issues, but also safety needs and enhancement of economic development opportunities and freight movement.

Southeast Wisconsin has some of the most congested and complex, and consequently expensive, highway infrastructure in the state. Southeast Wisconsin megaprojects are defined as freeway projects in the seven-county southeast region with estimated costs (inflation adjusted) of over $900 million, and they play a key role in moving local traffic, commuters, tourists, and freight around and beyond the Southeast region of the state. Projects in the Southeast megaprojects program must be listed (enumerated) in the Wisconsin State Statutes prior to construction.

Distinct from Southeast megaprojects, other statewide Major highway projects that are enumerated through the state biennial budget or action by the TPC meet specific state statute definitions and are typically capacity expansion projects, bypass projects, or other modernization projects. WisDOT provides an analysis and recommendation of Major project candidates for study or construction to the TPC. The TPC, using WisDOT's analysis, recommends to the Governor and Legislature a list of Major highway projects and an appropriate annual funding level for supporting the ongoing Major program.

For both Southeast megaprojects and Major highway projects, completing currently enumerated projects helps maintain a state of good repair on key corridors including those heavily utilized by freight.

Beyond the above programs, the Blatnik Bridge project in Superior, which is estimated to be completed in 2032 at a cost of $1.8 billion, and the Lansing Bridge in southwest Wisconsin, which is expected to open in late 2026 at a cost of $140 million, serve as other examples of WisDOT committing significant resources to address significant local and regional needs.

17. Optimize traffic movement on the state trunk highway system by utilizing tools to improve existing capacity and, where necessary, adding capacity

WisDOT's vision for optimizing traffic movement on the state trunk highway system is to improve the system to reduce congestion, improve safety, and support economic growth in Wisconsin. To achieve this vision, WisDOT uses tools and strategies to improve capacity on existing facilities and construct new facilities to increase capacity, where appropriate and warranted.

The efficiency and reliability of Wisconsin's STH is impacted by several factors such as traffic volume, roadway design, bad weather, and incidents such as crashes, stalled vehicles, and construction. These factors can result in increased congestion. A safe, efficient, and reliable highway system requires routine monitoring, maintenance, and preservation to meet established performance thresholds and to identify and reduce freight bottlenecks. Use of WisDOT's delay and travel reliability performance measures help to inform where to enhance mobility and reliability on the state's highway system.

Highways & Local Roads (continued)

18. Manage access on Wisconsin's state trunk highway system

Balancing transportation and land use continues to be a challenge. WisDOT will protect the safety and capacity of, traffic flow on, and public investment in, state highways through a sound set of access management policies. Further, WisDOT will encourage local governments to develop comprehensive plans that utilize land use management practices that optimize access management along state highways. WisDOT will also work with the public and local governments to provide access where it is possible with minimal conflicts, while promoting investment in the local economy.

Access management policies and farmland preservation strategies are further discussed in WisDOT's Facilities Development Manual (FDM) for project-level guidance.

19. Improve the reliability and efficiency of state trunk highway operations

Effective, coordinated, and economical operations are part of an efficient transportation system that helps maximize traffic flow.

The primary goal is to optimize the reliability of the highway system, while maintaining safety and efficiency. Highway operations activities focus on traffic flow on the roadway. WisDOT's efforts to improve daily highway operations include implementing and integrating traffic control devices and other applicable technology, such as TPIMS, which helps inform drivers of parking availability. Dynamic messaging signs facilitate real-time traveler warnings and information.

20. Monitor state trunk highway conditions in support of a formal, ongoing preventive maintenance process

Preventive maintenance is the periodic application of relatively inexpensive roadway treatments (for example, filling pavement cracks on roadways) that help extend the life of the system by delaying deterioration. Postponing preventive maintenance ultimately results in larger repair projects that take longer to complete and, as a result, can cause consequences such as greater disruption to traffic flow. An effective preventive maintenance process includes:

- Monitoring existing state trunk highway conditions, including through the use of pavement data collection vehicles, identifying deficiencies, and setting priorities
- Developing a plan to carry out maintenance activities and address deficiencies

Highways & Local Roads (continued)

21. Implement proven maintenance management practices

To monitor system performance and address deficiencies throughout the year, WisDOT uses a Maintenance Decision Support System. This decision support system is a computerized information system that supports organizational decision-making activities and is intended to help decision makers compile useful information from raw data, documents, personal knowledge, and/or business models to identify and solve problems and make decisions. This system helps highway maintenance staff identify and recommend specific treatments and timing strategies to complete necessary maintenance work. Moreover, WisDOT's regional maintenance field staff monitor county performance, specifically in the areas of establishing work plans, setting priorities, and assuring compliance with maintenance standards. In terms of maintenance, WisDOT works to:

- Implement work zone and lane-closure management strategies and tools to maintain safety and minimize impacts on travelers
- Emphasize cost-effective strategies in county maintenance contracts

22. Continually monitor the state trunk highway network and respond to operational needs

The department's efforts to monitor daily traffic flow on state highways are conducted primarily through close coordination of law enforcement, first responders, other agencies, the media, and staff at WisDOT's Traffic Management Center (TMC).

With the aid of cameras, road sensors, and area responders throughout the state, TMC staff work with others to identify and track incidents and initiate appropriate responses. The TMC provides information to the public using direct communication, the 511WI.gov website, and dynamic message signs. With the traffic control and monitoring systems operated by the TMC, trucks and other commercial vehicles are able to reduce the amount of delay they encounter while traveling in Wisconsin, which helps freight carriers lower shipping costs.

23. Implement a practice of resiliency in planning, design, operations, and maintenance

To ensure the safety and economic vitality of Wisconsin, WisDOT will consider integrating all-hazards risk assessments and adaptation strategies into our planning, design, operations, and maintenance activities. By utilizing forward-looking predictive tools, increasing system redundancy, and prioritizing rapid recovery protocols, we will reduce the magnitude and duration of service disruptions caused by extreme weather and natural disasters.

The department has incorporated a comprehensive risk-based resiliency component to our asset management decision-making process. This includes the Facilities Repeatedly Requiring Repair and Reconstruction (F4R) program, which aims to assess roadways and structures that have suffered catastrophic damage in areas covered by state emergency declarations multiple times. The evaluations seek to identify alternatives that can mitigate or fully resolve the underlying causes of recurring damage.

Highways & Local Roads (continued)

24. Continue to use a performance-based approach to refine and expand a state-of-the-art process to identify and prioritize preservation needs of the state trunk highway system

WisDOT will continue to use a comprehensive asset management approach based in performance-based practical design principles to identify and address state trunk highway system needs. This allows WisDOT staff to analyze preservation needs using data based on physical condition, safety, operation, function, and connectivity. It also allows WisDOT staff to consider a range of funding and road construction alternatives, which results in a systematic and objective approach to cost-effective state trunk highway system preservation.

WisDOT continues to enhance its prioritization methods using a variety of data-driven strategies and applications. This prioritization process will include using thresholds for pavement, structures, and safety.

The department's maintenance and preservation efforts address the system needs and help extend the system's life. Wisconsin's highest preservation priority continues to be the structural preservation of bridges. For this reason, structural bridge needs will continue to receive priority funding. For the remaining system, WisDOT will prioritize preservation needs using state-of-the-art methods. The process applied will include a dual-priority approach that selects projects based on both the cost-effectiveness of the preservation strategy and the importance of the roadway to the overall system function. Establishing a functional priority will enable WisDOT to better prioritize needs.

The department will also continue to emphasize proactive pavement preservation actions to extend service life and minimize the life-cycle cost of other system needs.

25. Improve the department's existing maintenance management tools

WisDOT continues to expand and refine its existing maintenance management system tools. These tools help establish work priorities and allocate resources. A critical input for the tools is condition assessments of the state trunk highway system. The assessments provide condition information about shoulders, drainage, roadsides, traffic devices, bridges and winter operations. Over the long term, WisDOT is working toward developing and implementing a comprehensive maintenance management system for all highway assets. Part of this effort will include improving the department's existing maintenance management tools, and researching and evaluating new, cost-effective highway maintenance technologies, including machine learning.

26. Use technology to improve motor carrier efficiency

WisDOT issues permits for OSOW vehicles and loads to provide for their safe and efficient movement. In November 2020, WisDOT launched its updated internet-based OSOW automated permit issuance system to wide acclaim from the private sector. WisDOT will continue to maintain its internet-based OSOW automated permit issuance system for customers to apply for and self-issue new permits and to renew existing permits. In 2025, 84% of permits were self-issued through this system.

In addition, WisDOT has expanded its Truck Parking Information Management System to inform truck drivers about the availability of parking at Safety Rest Areas.

Highways & Local Roads (continued)

27. Enhance approaches to improve motor carrier enforcement

WisDOT will continue to utilize Weigh-In-Motion technology, Virtual Weigh Stations, third-party bypass providers, and other technologies for motor carrier enforcement operations. WisDOT will integrate roadside data captured by these systems with the commercial motor vehicle data networks maintained by the department through the Commercial Vehicle Information Exchange Window (CVIEW) system. Integration will provide seamless monitoring for compliance and allow better data analysis of motor carrier operations.

Additionally, WisDOT will maintain awareness of emerging technologies related to the movement of goods, including real-time tracking of hazardous materials, use of radio frequency identification to track shipments, and use of Global Positioning System (GPS) to notify commercial drivers of real-time conditions.

28. Continue to work with other states and local communities to identify oversize-overweight harmonization opportunities

While it is critical for OSOW loads to have efficient routing within Wisconsin, it is also crucial these movements have sufficient routes to exit and enter the state, as needed. The FAC recommended WisDOT take steps to harmonize permitting rules and availability across state lines, including with Minnesota, Iowa, Illinois, and Michigan. In support of this policy, WisDOT is an active participant in the MAASTO Highway Transport Committee. WisDOT also must continue to partner and cooperate with local governments as jurisdictional challenges between roadway types exist and as local zoning impacts freight opportunities. While this has been ongoing, WisDOT will continue to work with other states and local communities to identify oversize-overweight harmonization opportunities.

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Highways & Local Roads (continued)

29. Partner with local governments to manage, invest in, and preserve the local road and bridge network

Decisions regarding transportation at the state and local levels will continue to emphasize cooperation and coordinated decision-making. All levels of government are responsible for transportation system management and efforts should be made to ensure that decisions are coordinated. WisDOT will continue to work with local governments when managing corridors to ensure that decisions regarding operations, access management, project planning design, or construction consider concerns and issues at the local level and are harmonized across jurisdictions.

In addition, WisDOT will work with its stakeholders and local governments to manage the transport of OSOW loads on Wisconsin's roads. Overweight trucks may accelerate the deterioration of highways and bridges, and can result in the need for additional infrastructure investment. Allowing OSOW vehicles on Wisconsin's roadways requires a balance between increasing freight movements to meet economic development goals and minimizing impacts to local roads, highways, and bridges.

- As part of the preservation of the local transportation system and its role in supporting Wisconsin's economy, WisDOT will:
- Inform local officials about funding opportunities, including through use of external stakeholder forums
- Assist in providing asset management strategies and tools, such as the Wisconsin Information System for Local Roads (WISLR), for local governments to ensure that selected system preservation improvements provide cost-effective service life extension
- Work with local entities to identify and address key safety issues on the local system, including through the use of Highway Safety Improvement Program funds
- Work to identify and address weight restricted roads and bridges that restrict the ability of agricultural and forestry producers to transport full loads

Rail

1. Address rail crossing safety for vehicles, pedestrians, and bicyclists

Rail crossing safety is a focus for WisDOT. Activities to implement this policy include:

- Provide leadership in grade crossing safety by establishing and maintaining WisDOT's engineering standards, policies, and priorities
- Working with the Office of the Commissioner of Railroads, local officials, and private railroad companies to identify potential rail crossing safety improvements such as signals, gates, grade separations, or closing crossings
- Working with the Office of Commissioner of Railroads and private railroad companies to discourage trespassing by encouraging pedestrians to cross at officially open grade crossings and encouraging installation of fencing
- Continue the implementation of the findings of the state rail crossing safety action plan
- Support of rail safety programs such as Operation Lifesaver

Rail (continued)

2. Work with stakeholders to improve rail security and incident and disaster response capabilities

It is important for stakeholders to understand their responsibilities and available resources related to derailments, leaks, and other emergency situations. The safety and security of the rail system will be addressed through a number of efforts, including:

- Enhancing the security of the transportation system by exploring an “all hazards” approach towards improving resiliency
- Working with partners to improve emergency response
- Working with Wisconsin Emergency Management, railroad companies and other agencies to discuss rail-related security and disaster response issues

3. Invest in Wisconsin’s rail network with an intention of preserving rail corridors, including rights-of-way, for transportation use through public ownership where appropriate, and develop criteria to determine when divestiture is appropriate.

Preservation activities include:

- Maintenance of state-owned rail lines to allow service levels to continue uninterrupted and without additional restrictions
- Acquisition of rail lines into public ownership, when appropriate, to preserve essential railroad service
- The upgrading and rehabilitation of Wisconsin’s publicly-owned rail lines, tracks, and bridges
- Conducting studies of publicly-owned rail line infrastructure needs
- Development of an analytical policy framework to provide a context for further decision making on the long-term sustainability of publicly-owned track and corridors
- Working with the Department of Natural Resources and Surface Transportation Board to support the Rails to Trails program to preserve rail corridors for potential reactivation of rail service

4. Continue to monitor Chicago’s effect on Wisconsin’s freight service

WisDOT will monitor infrastructure improvements to the Chicago-area rail network. WisDOT will explore opportunities to improve freight rail efficiencies moving through Chicago for Wisconsin-based businesses.

5. Continue state assistance programs for rail improvements

The state’s goal is to rehabilitate rail lines to meet FRA Class 2 Track Safety Standards and operate at speeds up to 25 miles per hour and carry rail cars with a gross weight of 286,000 pounds.

Rail (continued)

6. Investigate new policies and new financing strategies for projects that improve freight service

This policy reflects WisDOT's long-standing practices and strategies. WisDOT reaffirms continuation of this policy.

7. Evaluate the Rail Transit Commissions to support local involvement under a structure that will remove redundancies and create efficiencies

Rail Transit Commissions (RTCs) were created in the 1980s under Wis. Stats. ss. 59.968 and 66.30 to preserve rail service or the potential for rail service, and to influence policies on the future use of rail corridors if existing rail service is proposed to be discontinued. The original purpose of the RTCs was to create an entity to provide state funding in support of railroad improvements when the state was constitutionally prohibited from directly funding rail improvements through railroad operators. In 1992, the constitution was amended to allow state funds to be used for railroad improvement purposes and the mechanism of public ownership with the RTCs remains. Grant agreements between WisDOT and RTCs determine how the lines can be used.

WisDOT will evaluate the current structure of the RTC model to ensure continued local involvement to maximize efficiency and effectiveness. This will include exploring the potential consolidation of multiple regional commissions into broader collaborative structures. The goal is to reduce reporting burdens, streamline meetings, and optimize administrative spending.

8. Work with stakeholders to ensure that appropriate rail service will be provided to shippers statewide

Recognizing the value of the state-owned railroad lines and their role in the state's transportation network, it is in the state's interest to ensure that the system is capable of preserving and promoting viable service. Mechanisms to support shipper access include:

- Supporting freight shipper investments that permit new or continued local service
- Providing planning support to metropolitan planning organizations and regional planning commissions in considering transportation needs that support the development of rail-friendly industrial development sites
- Supporting efforts to improve connections between Wisconsin's short-line railroads and other carriers

The Surface Transportation Board (STB) has jurisdiction over railroad rate, practice and service issues and rail restructuring transactions. WisDOT will explore ways to educate stakeholders about the role of the Surface Transportation Board.

Rail (continued)

9. WisDOT will lead coordination efforts between state agencies (including DATCP and WEDC) to ensure a common message about state government's role in intermodal shipping

WisDOT supports the integration of intermodal transportation options within Wisconsin's supply chain ecosystem as one approach that would enhance supply chain redundancy and resiliency by utilizing and harmonizing multiple modes of transportation.

In 2025, WisDOT published the Intermodal Freight in Wisconsin Update report, which is intended to be a supplement to the 2019 Overview of Intermodal Freight in Wisconsin report. The 2025 report includes data and operational updates that have occurred since the 2019 report was published.

WisDOT encourages all private sector firms to participate in shipping data aggregation efforts. Finding intermodal shipping solutions requires significant communication and cooperation among various entities, which do not always share the same goals. Therefore, WisDOT will continue to play a lead role in facilitating communications from state agencies to local interested parties, including local/regional governments and economic development organizations, and provide technical assistance and guidance on intermodal terminals. Having the right parties at the table for the discussion is crucial to ensure the long-term success of any intermodal terminal, taking all interests into consideration.

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Maritime

1. Identify and address first- and last-mile roadway and rail issues at ports that affect freight movement

Roads that connect to the state's ports are a critical part of Wisconsin's transportation system. Typically, these are local roads owned and operated by local jurisdictions, and many of them are part of the National Highway System because they provide access to intermodal facilities. Road maintenance is sometimes a low priority because the roads near ports don't typically serve high volumes of passenger traffic. Some terminal access roads do not adequately serve oversize-overweight (OSOW) trucks traveling to and from the ports, causing trucks to travel farther distances to avoid bridges with weight limits, areas with reduced clearance, or roadways with insufficient turning radii. To enhance intermodal connectivity between ports, highways, railroads, pipelines, and distribution facilities, the department will work with local governments and ports statewide to identify solutions that address port-connector roadway issues, transloading facilities, and designated OSOW freight routes as part of WisDOT's freight planning and local roads coordination efforts, and consider utilizing state and federal freight funding programs to optimize first- and last-mile freight access.

Distinct from roadways, WisDOT will assess opportunities to support rail improvements that support modal transfers at maritime facilities.

2. Explore options to expand container shipping in the Great Lakes and Inland Waterway Systems

WisDOT understands the potential value in diversifying cargo beyond traditional bulk commodities. As such, WisDOT will explore strategies to scale containerized freight options across the Great Lakes and Inland Water Systems, creating high-value supply chains for Wisconsin's agricultural and manufacturing sectors. This includes the potential to ship containers from the Great Lakes to the Gulf via the Inland Waterway System. The state will also explore collaborations with domestic and international ports to establish green shipping corridors and dedicated container feeder networks among small and large ports across the Great Lakes-St. Lawrence Seaway and Inland Waterways. WisDOT will also facilitate bulk and containerized commodity shipments through its Harbor Assistance Program.

Maritime (continued)

3. Safeguard the state's maritime commerce and coastal environments by considering environmental, structural, and operational resilience in state-supported port infrastructure, planning initiatives, and grant programs

In order to ensure continuous supply chain reliability, preservation of critical maritime assets, restoration of freshwater and upland ecosystems, and resilience against extreme weather events and natural disasters, WisDOT will evaluate the potential inclusion of the following strategies:

- Requiring material standards, including protective coatings and corrosion-resistant technologies for steel dockwalls and marine infrastructure on Lake Superior and statewide waters
- Prioritizing flood-resistant infrastructure investments and designs that reinforce Lake Michigan ports, terminal facilities, and navigation channels
- Requiring state-funded maritime projects use flexible design methodologies to maintain uninterrupted commercial operations during extreme high and low water level fluctuations
- Coordinating with state and federal agencies to advance engineering and natural solutions
- Advocating for federal funding and collaborating with multi-state and federal partners to reinforce:
  - The Upper Mississippi River Basin infrastructure against disruptions from flooding, seasonal low-water levels, and lock-and-dam operational constraints
  - Prioritization of ice-breaking operations (USCG), dredging of federal navigation channels (USACE), and modernization and maintenance of federal lock and dam infrastructure (USACE)

4. Continue state assistance programs for harbor and waterway improvements which are all critical to Wisconsin's transportation system

Local governments and businesses compete for Harbor Assistance Program (HAP) grants, which provide critical funding for infrastructure and navigation projects to maintain and improve Wisconsin's ports and waterway systems. HAP grants help offset skyrocketing maritime construction costs and inflationary pressures through grant awards that prioritize aging infrastructure and dredging maintenance projects. As supply chains evolve and market conditions shift, HAP funding will play an expanding role in helping commercial ports and terminal operators modernize facilities and adapt to changing commodity trends.

Maritime (continued)

5. Advocate for federal funding for navigation and environmental improvements for the Upper Mississippi River-Illinois River Waterway and improvements to the Great Lakes-St. Lawrence Seaway System

Wisconsin relies on access to the Mississippi River system for transportation, commerce, recreation, and fishing. The state's maritime freight network faces critical operational and structural challenges across the Great Lakes–St. Lawrence Seaway, the Upper Mississippi River, and the Illinois Waterway. Shifting global trade demands from South America, Asia, and Africa have made efficient transit via the Gulf and West Coast port corridors vital for agricultural, forestry, and mining exports, yet shipments are routinely hindered by aging lock-and-dam infrastructure, severe winter closures, and unpredictable water-level fluctuations. Additionally, commercial navigation along the Illinois Waterway System is restricted by obsolete, low-clearance rail bridges that are abandoned. While dredging can maintain safe navigation around these legacy structures, it cannot resolve the underlying vertical height constraints (air draft) that restrict modern barge configurations.

Wisconsin's Great Lakes ports and maritime terminals need access to a modernized inland waterway navigation system to improve transit reliability, safety, capacity, intermodal connectivity, and access to emerging markets through the Gulf and West Coast ports. To optimize these critical commercial corridors, enhance system resiliency, and reduce pressure on highway and rail corridors, the department will evaluate the following approaches:

- Advocate for federal investments to upgrade antiquated lock-and-dam systems, maintain federal navigation channels, and resolve seasonal water-level limitations impacting bulk commodity exports on the Mississippi River
- Foster collaborative agreements among Wisconsin ports to maximize domestic and international shipping connections, particularly toward the expanding Gulf ports
- Advocate with federal agencies, neighboring states, private railroads, and ports to identify bottlenecks, and catalog and remove abandoned low-clearance rail bridges that present navigational hazards or restrict modern barge movement in the Illinois Waterway
- Engage with regional stakeholders to develop and implement effective strategies to inhibit movement of aquatic invasive species

6. Encourage local governments to conduct comprehensive harbor and waterfront land use planning

Wisconsin port communities are faced with competing land uses for existing waterfront properties. With increasing demand for waterfront property, local officials must address the challenges of zoning conflicts between competing interests at the ports, such as recreation/tourism, housing developments, and commercial and industrial needs. Some of these competing interests could impact future freight activities at Wisconsin's ports. RPCs, MPOs, and local governments typically handle local shoreline planning and development issues; the Duluth-Superior Harbor Technical Advisory Committee, which supports the Duluth-Superior Metropolitan Interstate Council, is a model for coordinating these issues.

WisDOT will encourage the retention of maritime freight opportunities and provide technical assistance to community planning efforts.

Maritime (continued)

7. Continue coordinating with partners to explore the development of a comprehensive Wisconsin Maritime Transportation Strategy that supports thriving coastal communities and maritime commerce within a safe, efficient, and seamless freight transportation system

To build on existing statewide and regional maritime transportation planning efforts, WisDOT will explore the development of a freestanding maritime transportation strategy. A Wisconsin maritime transportation strategy will allow WisDOT to implement strategies to improve the effectiveness and efficiency of Wisconsin ports as components of the state's multimodal transportation system. This strategy will establish a unified framework for the state's two maritime systems: the Great Lakes–St. Lawrence Seaway and the Upper Mississippi River basin.

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Air

1. Preserve Wisconsin's airport system infrastructure to aid economic growth

Airports and aviation are integral parts of local, state, and regional economic development. An airport's ability to accommodate the needs of existing and prospective businesses is vital. To help improve the environment for business growth and retention, WisDOT will improve airport facilities and infrastructure to help increase the number of airports able to handle business airplanes. To accomplish this policy, WisDOT will:

- Use the Airport Improvement Program to help Wisconsin airports accommodate business planes. Cargo that moves by air tends to be items that are high-value, low
- weight/bulk, time-sensitive, or highly specialized. Common commodity types include small packaged freight, electrical equipment, instruments, and optical equipment.
- Support the needed airport system infrastructure, including inclement weather capability, to enable and sustain jet aircraft and related activity. In addition to helping airports improve runways, the Airport Improvement Program also funds other improvements typically needed by jet airports, including:
  - Instrument approach systems
  - Runway lighting
  - Visual landing aids
  - Expansion of taxiways and aprons
  - Fuel storage
  - Hanger space
  - On-site weather information
  - Terminal buildings
  - Waiting areas
  - Ground transportation
  - Security

Air (continued)

2. Address airport system needs through the Airport Improvement Program, coordination with owners and operators, and Wisconsin Airport System Plan update efforts

WisDOT will continue to use the Airport Improvement Program (AIP) to assist with infrastructure improvements at Wisconsin airports. The Airport Improvement Program uses a combination of federal, state, and local funds. Airport infrastructure improvement projects that clearly support an immediate need by an existing business user, or that can be directly linked to job retention, job increases, income, and retaining a company located in the community, are given priority over projects intended solely to attract new business.

As an example, in 2025 WisDOT used $7.5M in Infrastructure Investment and Jobs (IIJA) Airport Infrastructure Grant (AIG) funds to support the development of a new air cargo facility Milwaukee Mitchell International Airport.

3. Explore the viability of Advanced Air Mobility cargo operations in Wisconsin

As new technologies enable different forms of faster alternatives for air cargo movement, WisDOT will work with stakeholders to explore the infrastructure and operational needs and costs that would potentially lead to an expanded use of air cargo in Wisconsin, particularly outside urban cores.

4. Support preservation of continued air cargo service at airports with existing operations

As part of WisDOT's next Wisconsin Aviation System Plan, the department will address the opportunities and challenges associated with retaining air cargo service at airports throughout the state. While a recent project in Milwaukee has improved the outlook for long-term success there, discussions with industry have highlighted the challenges smaller airports may face in retaining their air cargo operations

Pipeline

1. Enable modal connections, diversity, and support system resiliency for pipelines

Much of WisDOT's approach to petroleum products is the same as to natural gas, with the addition that product terminals should be included in freight planning activities. The petroleum pipeline network is much less dense and integrated than the natural gas pipeline network, increasing the likelihood that a petroleum pipeline disruption affects a large portion of the state. WisDOT considers its role for emergency response with petroleum product pipelines to include coordinating and supporting the movement of needed energy inputs. WisDOT also aids in ensuring vehicles with weight or hours to service waivers are able to travel throughout the state.

Generally, WisDOT's role in petroleum product pipelines is directly related to the PSC for pipeline siting and WEM as the lead coordinating agency in case of an energy emergency. As with natural gas pipelines, WisDOT in coordination with the PSC is exploring the implementation of the UAP.

Within the context of the SFP, Wisconsin is ensuring it includes petroleum terminals as part of its freight generators and freight modeling approaches. Inclusion of these assets not only reflects key locations of the freight transportation system, but also raises their visibility when planning future investments.

2. Apply the Utility Accommodation Policy to all types of pipelines In Wisconsin

WisDOT's limited interactions with pipelines are through its Utility Accommodation Policy (UAP). WisDOT allows pipelines on STH Right Of Way if the use will not negatively impact the operation and maintenance of the roadway, the use is legal at a local, state, and federal level, and the use will not make future construction more difficult or costly.

WisDOT identifies potential intersections between the locations of pipelines relative to construction projects to ensure construction personnel are aware of their locations. Additionally, WisDOT ensures that a project has access to the equipment needed to respond to a pipeline incident, should it occur during construction.

3. Monitor trends in crude oil movements and their impact on other transportation users

Translating this approach to actions is limited by the minimal authority that WisDOT can exercise with respect to pipelines. As such, the actions focus on the impact of pipelines on other modes and the impacts on other businesses within the state.

WisDOT will monitor crude by rail frequency in the context of its multimodal planning strategy. In addition, to help re-establish partnerships with pipeline companies, WisDOT would consider re-adding a representative of the energy sector to its FAC should the private sector be interested.

Other

1. Track performance measures to support investment prioritization and policy decisions for the state freight system

Monitoring the state's transportation system performance will help assess system deficiencies, inform investment decisions, and validate and verify the State Freight Plan's policy direction over time.

2. Provide transportation-related grant and loan assistance to boost the economic development and vitality of Wisconsin communities and businesses

WisDOT will continue to administer grant and loan programs aimed at enhancing transportation infrastructure for highways, railroads, harbors, and airports. Currently these programs include:

- Transportation Economic Assistance program
- Freight Rail Infrastructure Improvement Program
- Freight Rail Preservation Program
- Harbor Assistance Program
- Airport Improvement Program
- Local Roads Improvement Program
- Agricultural Roads Improvement Program

WisDOT's grant and loan programs help with the attraction to and retention of businesses in Wisconsin, which, in turn, increases or preserves a community's tax base and provides funding to build projects that could not have been financed in their entirety by the private sector. All applications for assistance undergo a benefit/cost analysis to demonstrate the public benefit of each proposed project. WisDOT will periodically review the assistance programs to ensure that they reflect market needs.

3. Continue convening WisDOT's Freight Advisory Committee as an essential means of seeking stakeholder involvement and facilitating dialogue between public and private interests

Recognizing the FAC as the key sounding board for freight policies and initiatives, the department will continue to convene the FAC as a forum for identifying current and emerging freight concerns. The information and feedback provided by WisDOT's FAC has yielded valuable insight into the full range of issues and interests of the freight industry.

WisDOT will continue to engage in freight advocacy by facilitating a dialogue to resolve issues between stakeholders when industry decisions impact a community's economic viability.

Other (continued)

4. Coordinate with Public and Private Sector Freight Stakeholders

Freight transportation decisions involve multiple stakeholders, such as WisDOT, the federal government, local governments – including Regional Planning Commissions and Metropolitan Planning Organizations – Tribes, the private sector, operators, and other stakeholders. Since no single entity has authority over the entire transportation system, implementing the Wisconsin State Freight Plan will take coordination and cooperation among many interests and business areas. As a result, the responsibility for the safety, maintenance, operation, planning, and funding of the state's multimodal transportation system is shared by a full range of stakeholders and institutions, including the federal government, state government, local governments, and private entities. Therefore, the operation of a seamless transportation system requires coordination, collaboration, communication and cooperation.

5. Serve as a freight resource to local governments and other stakeholders

WisDOT routinely collects new data and information, updates analytical tools, and consults a myriad of public and private sector freight system stakeholders.

The State Freight Plan serves as a foundational resource for WisDOT and its stakeholders. WisDOT will continue to explore the needs, issues, and opportunities related to the state's freight transportation system. Using what we learn and create, WisDOT will continue to provide tools and materials that educate local governments, industry, and the general public on pertinent freight topics and issues.

6. Where appropriate, engage in multi-state efforts such as the Mid-America Freight Coalition and Mid America Association of State Transportation Officials

Through collaboration and communication with regional partners, this effort will serve to:

- Guide and support academic research efforts
- Discuss current freight system issues across modes and geographies
- Help identify best practices for public sector practitioners
- Promote harmonization of policies
- Build general agency capacity related to freight

Environmental

1. Support and fulfill the cooperative agreement between the Wisconsin Department of Natural Resources (DNR) and WisDOT, and other current and future interagency agreements

WisDOT enters into and maintains various interagency agreements to facilitate collaboration and to jointly develop policies and procedures, as appropriate. One example of an interagency agreement is the cooperative agreement between the DNR and WisDOT which establishes the overarching interdepartmental liaison procedures that the two departments utilize to balance responsible environmental stewardship with transportation infrastructure needs. The DNR-WisDOT cooperative agreement results in broader benefits such as coordinated planning efforts, synchronized reviews, and overall gains in government process efficiencies.

2. Monitor national best practices and other initiatives related to reducing freight's impact on the environment

Central to both the vision for the plan and goal of the National Highway Freight Program is the need to reduce the environmental impacts of freight movement traveling on infrastructure that is part of the National Highway Freight Network. Additionally, grant programs available to freight projects have required that applicants consider how enhancements to critical infrastructure help protect the environment.

In developing transportation plans, WisDOT already considers the range of federally-required planning factors, including protecting the environment and promoting energy efficiency and connectivity between different transportation modes. Most WisDOT infrastructure improvement projects require environmental studies during the design phase and mitigation is considered to avoid and minimize environmental impacts.

3. Incorporate consideration of all demographic groups in all planning, programming, and project decisions and activities

Pursuant to Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin, the American's with Disabilities Act of 1990, the Older Americans Act of 1965, and Federal surface transportation authorization laws from the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) onward, among others, WisDOT will continue to incorporate analysis of impacts on various racial and ethnic groups, groups of various income strata, people with disabilities, and the elderly, among others in all planning, programming, and project activities. To achieve this, WisDOT will:

- Conduct demographic analyses on all transportation planning and project activities
- Seek input from a wide variety of stakeholders
- Assist Metropolitan Planning Organizations and Regional Planning Commissions in considering impacts across various demographic groups in transportation planning activities

In addition to the commitments outlined in this policy, the department will continue to demonstrate its leadership and commitment to the Civil Rights Act by promoting fairness and equity in the delivery of its transportation services, as well as providing business and employment opportunities in Wisconsin's transportation projects.

Environmental
(continued)

4. Comply with federal and state environmental laws, regulations, and executive orders relevant to transportation and support future standards and programs

This policy reaffirms WisDOT's efforts to integrate environmental considerations into transportation decision-making.

5. Monitor state and national efforts and be prepared to address potential future greenhouse gas regulations, pursuant to changes in regulation

The burning of fossil fuels results in greenhouse gas (carbon dioxide, methane, and nitrous oxide) emissions, which trap heat in the earth's atmosphere. Transportation sources remain Wisconsin's largest contributor to the state's greenhouse gas inventory. Impacts resulting from continued increases in greenhouse gas emissions include economic losses, increased frequency and severity of extreme meteorological events, changing landscapes, as well as weather related illnesses and disease. State and federal greenhouse gas emission regulations and policies continue to evolve. WisDOT will continue to monitor state and national efforts and adapt to requirements and policy priorities as they are established.

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Environmental
(continued)

6. WisDOT will balance transportation needs with the department's environmental responsibilities by avoiding or mitigating impacts to the natural and human environment to support and enhance state and national environmental stewardship goals

WisDOT shares the national goals for environmental stewardship found in 49 U.S.C. 70202(b)(16) and will support and enhance these goals through development of policies and procedures, consistent policy application, continued cross-agency collaboration, and the creation of metrics to assess overall efforts. In general, WisDOT incorporates environmental goals into project planning and programming by:

- Reducing waste and recycling materials during transportation projects
- Collaborating with other state and federal agencies, Tribes, local governments, and non-governmental organizations to effectively manage and mitigate impacts to the natural and human environments

To cultivate data-driven project prioritization, WisDOT is developing a risk assessment application to incorporate flood resiliency in the planning process, as well as to support the Facilities Repeatedly Requiring Repair and Reconstruction program. The overarching risk categories that will be applied are exposure, sensitivity, and consequence, which each include several metrics. WisDOT metrics for evaluating truck freight corridors will also be applied, which WisDOT anticipates will help meet two IIJA freight goals: reduce severity of impacts of extreme weather and natural disasters, and reduce flooding and stormwater runoff. The drainage design consideration in identified areas will incorporate data from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14, using the 90th percentile confidence interval limit for the 24-hour, 100-year flood rainfall depth for design. This flood risk assessment approach will help prioritize areas of previous concern, as well as proactively include design considerations for areas at the greatest risk of flood impacts to ultimately yield a more resilient roadway system. Once complete, the Facilities Development Manual (FDM), which provides policy guidance for all types of highway improvements, will be modified to include the resiliency design considerations in accordance with the risk assessment application. The FDM also currently contains policies and procedures within the Erosion Control and Storm Water Quality, Drainage, and Land and Water Resources Impacts sections to give WisDOT project managers and designers tools and guidance to reduce pollutants generated by WisDOT facilities and to adequately design for flooding events.

WisDOT is committed to mitigating the negative impacts of freight movement on air pollution and wildlife habitat loss, including emissions, noise pollution, congestion, and spread of invasive species (land and water). WisDOT's Air Quality chapter of the FDM provides policy, procedural requirements, and guidance for a variety of project types, including any significant modification to major intermodal freight facilities, to help identify impacts associated with the potential for high concentration of particulate matter in a single location or Mobile Source Air Toxics emissions and suggests mitigation measures to reduce those impacts.

In addition to the approved Wisconsin Electric Vehicle Infrastructure Plan, in 2023 the Mid-America Freight Coalition pooled fund published a report, Fleet Electrification and Alternative Fuels, which assessed the factors that influence the electrification of large trucks on major freight corridors. WisDOT is also currently exploring the potential benefits of planting vegetation barriers on the ROW to mitigate wind tunnel effects, which would reduce the spread of invasive species that could negatively impact wildlife habitats and minimize disbursement of contaminants from emissions. Guidance on other current mitigation practices can be found in the Wildlife, Threatened and Endangered Species, sections of the FDM. The collective efforts of using data-driven approaches, ongoing research, and active stakeholder partnerships will help WisDOT more effectively understand and implement solutions to mitigate the negative impacts of freight movement to the natural and human environments, in furtherance of not only environmental stewardship goals, but also all long-range Connect 2050 multimodal freight transportation system goals.

Environmental
(continued)

7. Support statewide efforts to prevent the spread of invasive species via freight transportation by referencing and promoting established Wisconsin best management practices (BMPs) and regulatory resources developed by partner agencies

To support statewide prevention efforts, WisDOT will reference and promote the Wisconsin Council on Forestry's Invasive Species BMPs, including NR 40 (Wisconsin's Invasive Species Identification, Classification and Control Rule), and other Department of Natural Resources and Department of Agriculture, Trade and Consumer Protection guidance relevant to transportation, including BMPs for transport of woody material, soil, aggregates, equipment cleaning, agricultural products and vegetation management.

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The IIJA requires that each state's freight plan include a description of how the policies, strategies, and performance measures support both the national multimodal freight policy goals and the National Highway Freight Program goals. Table 3-1 provides a crosswalk between these national goals and the Wisconsin policies and strategies described above. This table also describes how the SFP policies and goals support the Wisconsin Connect 2050 LRTP.

Note: In Table 3-1, the column labeled "Air 1" refers to the All Modes policy #1, e.g. "Promote a safe multi-modal freight network within WisDOT to understand freight needs across the state and to integrate freight transportation policies into department planning and investment decision-making processes". This labeling convention carries across all columns.

Table 3-1. WisDOT Policies Supporting National Goals

NATIONAL MULTIMODAL FREIGHT POLICY GOALS	ALL MODES								HIGHWAYS & LOCAL ROADS																							RAIL								MARITIME							AIR				PIPELINE			OTHER						ENVIRONMENTAL						
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	1	2	3	4	1	2	3	1	2	3	4	5	6	1	2	3	4	5	6	7
(1) to identify infrastructure improvements, policies, and operational innovations that—																																																																									
(A) strengthen the contribution of the National Multimodal Freight Network to the economic competitiveness of the United States;	■					■						■	■								■	■		■	■	■	■		■	■	■			■	■			■		■	■		■	■		■	■	■	■	■		■	■		■	■					■																			
(B) reduce congestion and eliminate bottlenecks on the National Multimodal Freight Network; and	■								■	■		■					■				■			■	■	■	■			■	■									■	■																																			
(C) increase productivity, particularly for domestic industries and businesses that create high-value jobs;	■						■						■								■			■	■	■	■			■	■				■	■			■		■			■			■	■	■																																			
(2) to improve the safety, security, efficiency, and resiliency of multimodal freight transportation;		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■	■	■	■	■	■			■	■			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

NATIONAL HIGHWAY FREIGHT PROGRAM GOALS

	ALL MODES								HIGHWAYS & LOCAL ROADS																							RAIL									MARITIME							AIR				PIPELINE			OTHER						ENVIRONMENTAL						
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	1	2	3	4	1	2	3	1	2	3	4	5	6	1	2	3	4	5	6	7
(1) to invest in infrastructure improvements and to implement operational improvements on the highways of the United States that—																																																																										
(A) strengthen the contribution of the National Highway Freight Network to the economic competitiveness of the United States;	■				■	■						■	■								■	■		■	■	■	■		■	■	■			■		■								■																													
(B) reduce congestion and bottlenecks on the National Highway Freight Network;	■								■	■		■					■				■			■	■	■	■				■	■																																												
(C) reduce the cost of freight transportation;	■					■						■	■						■		■	■		■	■		■							■		■	■								■																													
(D) improve the year-round reliability of freight transportation; and						■		■	■	■		■	■				■				■			■	■	■	■		■	■	■						■																																						
(E) increase productivity, particularly for domestic industries and businesses that create high-value jobs;	■					■	■						■								■			■	■	■	■			■	■			■		■	■								■																													
(2) to improve the safety, security, efficiency, and resiliency of freight transportation in rural and urban areas;	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■			■	■							■			■	■																		

4

Economic Context of Freight

CHAPTER 4 ▪ WISCONSIN STATE FREIGHT PLAN

2027

4. Economic Context of Freight

4.1 Mode Comparison

In 2023, Wisconsin moved over $836 billion dollars through the state as referenced in Table 4-2. The primary mode of transportation for commodities was via truck. It was approximately 70 percent of tonnage and 74 percent of value of all modal shipments. Wisconsin's tonnage shows a reduction from the previous State Freight Plan, but the value of goods increased.

In terms of shipment value, truck was the top mode, followed by rail, water, air, and other. This follows a common trend with the rest of the United States, having most of the freight movement depending on trucking, as displayed in Figure 4-1 and Figure 4-2.

Figure 4-1. Wisconsin Freight Shipments by Volume by Tons (2023)

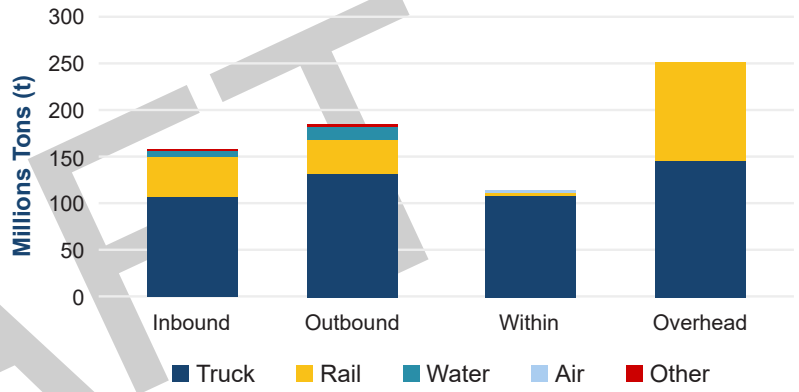
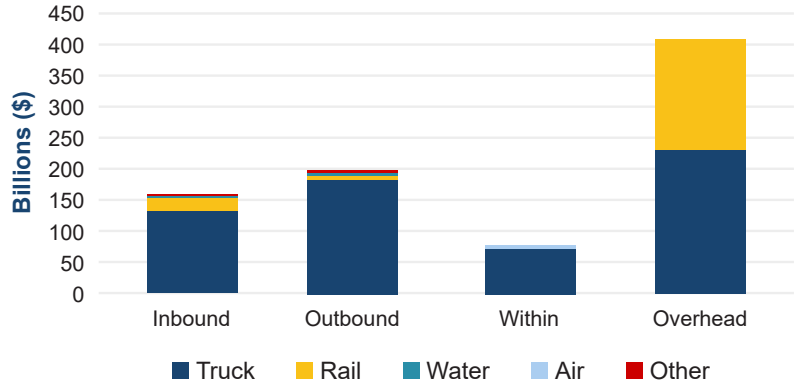


Figure 4-2. Wisconsin Freight Shipments by Value ($) (2023)



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Table 4-1. Wisconsin Freight Shipments by Volume (tons) (2023)

MODE	OUTBOUND	INBOUND	WITHIN STATE	OVERHEAD	TOTAL
Rail	36,796,395	45,492,153	4,381,317	106,710,418	193,380,283
Truck	131,204,158	105,882,619	107,866,907	144,439,820	489,393,504
Water	13,797,137	5,935,183	146,697	0	19,879,017
Air	36,839	44,370	574	0	81,783
Other	2,558	242,451	0	0	245,009
TOTAL	**181,837,087**	**157,596,776**	**112,395,495**	**251,150,238**	**702,979,596**

Table 4-2. Wisconsin Freight Shipments by Value ($) (2023)

MODE	OUTBOUND	INBOUND	WITHIN STATE	OVERHEAD	TOTAL
Rail	$9,477,822,882	$19,526,299,929	$1,110,321,057	$178,047,781,362	$208,162,225,230
Truck	$182,722,324,926	$132,987,189,058	$71,966,423,586	$232,661,174,753	$620,337,112,323
Water	$1,354,089,106	$3,069,271,301	$161,023,414	$0	$4,584,383,821
Air	$1,548,215,059	$1,741,317,960	$27,046,952	$0	$3,316,579,971
Other	$73,874,360	$101,380,380	$0	$0	$175,254,740
TOTAL	**$195,176,326,333**	**$157,425,458,628**	**$73,264,815,009**	**$410,708,956,115**	**$836,575,556,085**

Source: Transearch: Wisconsin freight shipments by tonnage and value

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Table 4-3. United States of America Weight of Shipments by Transportation Mode in Tons (2024)

MODE	EXPORT	IMPORT	DOMESTIC	TOTAL
Truck	472,000,000	497,000,000	11,905,000,000	12,874,000,000
Rail	312,000,000	170,000,000	1,048,000,000	1,530,000,000
Water	110,000,000	43,000,000	621,000,000	774,000,000
Air	3,000,000	2,000,000	2,000,000	7,000,000
Other	318,000,000	427,000,000	4,081,000,000	4,824,000,000
TOTAL	**1,214,000,000**	**1,139,000,000**	**17,656,000,000**	**20,009,000,000**

Table 4-4. United States of America Value of Shipments by Transportation Mode in USD (2024)

MODE	EXPORT	IMPORT	DOMESTIC	TOTAL
Truck	$951,000,000,000	$1,650,000,000,000	$11,098,000,000,000	$13,699,000,000,000
Rail	$138,000,000,000	$219,000,000,000	$226,000,000,000	$584,000,000,000
Water	$45,000,000,000	$36,000,000,000	$178,000,000,000	$259,000,000,000
Air	$239,000,000,000	$252,000,000,000	$155,000,000,000	$647,000,000,000
Other	$192,000,000,000	$288,000,000,000	$3,323,000,000,000	$3,803,000,000,000
TOTAL	**$1,556,000,000,000**	**$2,445,000,000,000**	**$14,981,000,000,000**	**$18,991,000,000,000**

Source: Moving Goods in the United States | BTS Data Inventory

Wisconsin is consistent with the nation. The majority of shipments whether by tonnage or value is transported with trucks. For tonnage, after trucking the most heavily-relied upon modes in the U.S. are other, rail, water, and then air. After trucking, the modes carrying the highest value of freight across the U.S. are other, air, rail, and water. The other category consists of "Pipeline", "multiple Domestic Modes (dms_mode) and Mail", "No Domestic Modes (No Dms mode)", and "Other and unknown." Similar to Wisconsin, the increase in shipments by value "is due to high-value, low weight commodities growing at a faster rate than low-value, high-weight commodities."[1]

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4.2 Connection to the Global Economy

Table 4-5. Freight-Dependent Sectors and Wisconsin's Economy

FREIGHT-DEPENDENT SECTOR	AVERAGE MONTHLY EMPLOYMENT (2024)	AVERAGE MONTHLY EMPLOYMENT (Q1-Q3 2025)	% OF TOTAL WI EMPLOYMENT (Q1-Q3 2025)	GDP (CURRENT BILLION USD) 2025	% OF TOTAL WI GDP 2025
Manufacturing	465,831(16%)	459,340	15.6%	$73.83	15.6%
Wholesale and Retail Trade	430,397 (15%)	424,539	14.4%	$61.91	13.1%
Transportation, Information, & Utilities/Energy	186,298 (6%)	127,992	4.4%	$40.00	8.5%
Construction	143,334 (5%)	103,331	3.5%	$21.79	4.6%
Agriculture and Forestry, Fishing and Hunting, and Mining	32,618 (1%)	31,476	1.1%	$7.15	1.5%
Total Freight Dependent Sectors	1,258,478 (43%)	1,146,678	39.0%	$204.69	43.3%
All Sectors	**2,944,347**	**2,939,066**	**100%**	**$473.04**	**100%**

Source: Bureau of Labor Statistics – Quarterly Census of Employment and Wages

Wisconsin businesses conduct international trade with companies around the world, both importing and exporting goods. With trade taking place on nearly every part of the globe, the transportation sector must be able to adapt to facilitate trade to any place in the world. Given the size, spread, and interdependency of economic centers in North America, a strong multimodal transportation network is essential. Global trade routes for several major industries run through Wisconsin on roadways, railways, and waterways. Transcontinental railways cross Wisconsin, connecting both our own, as well as multiple economies in North America, to major trade markets. Wisconsin is connected to the Atlantic Ocean and international markets through the Mississippi River and its Great Lakes Ports. Wisconsin's highways connect the state to major truck, water, air, and rail transportation hubs within the region and the United States.

4.2.1 Global Exports

Exports are goods produced in the United States and sold to international customers. For Wisconsin, they represent an inflow of funds and an outflow of goods for the state, as payments are made by foreign importers to Wisconsin-based sellers. By participating in global trade, Wisconsin companies can access markets with higher demand or better prices, ultimately enabling them to increase revenue. In turn, Wisconsin companies can invest or expand

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in their business and employ more workers (or offer higher wages) which generates further benefits to the state.

In 2023, 7,580 Wisconsin companies were exporting products abroad. Of those, 86 percent were small and medium-sized firms with fewer than 500 employees. In that same year 106,196 jobs were supported by Wisconsin exports.[2]

In 2025, Wisconsin exports were valued at more than $27 billion. Table 4-6 displays the main destinations and the percentage of total Wisconsin exports in 2025 as measured by value. Wisconsin's top export trading partners are Canada, Mexico, and the Netherlands. By value, approximately 43 percent of Wisconsin's total exports are sent to Canada (27.7 percent) and Mexico (14.9 percent). By tonnage (metric tons), China (8.2 percent), Ireland (8.0 percent), the United Kingdom (7.5 percent), and Spain (6.0 percent) account for almost 30 percent of Wisconsin's exports.

By value, the state's top commodities exported in 2025 shown below in Table 4-7 were Machinery, Except Electrical ($5.1 billion), Computer & Electronic Products ($4.7 billion), Transportation Equipment ($2.7 billion), Chemicals ($2.7 billion), and Food & Kindred Products ($2.5 billion).

Table 4-6. Wisconsin's Leading Global Export Markets (2025)

COUNTRY	EXPORT VALUE (MILLIONS)	% WI EXPORTS VALUE	EST. EXPORT TONNAGE (THOUSANDS)	% WI EXPORTS TONNAGE
Canada	$7,520.29	27.7%	91.7	5.9%
Mexico	$4,040.74	14.9%	3.1	0.2%
Netherlands	$1,043.62	3.8%	30.4	2.0%
China	$1,018.25	3.8%	127.3	8.2%
Germany	$942.07	3.5%	35.1	2.3%
United Kingdom	$871.71	3.2%	116.1	7.5%
Belgium	$759.51	2.8%	17.6	1.1%
Japan	$735.80	2.7%	83.1	5.4%
South Korea	$723.66	2.7%	53.0	3.4%
Singapore	$684.60	2.5%	12.3	0.8%
All Other Countries	$8,783.38	32.4%	981.0	63.3%
Total All Countries	**$27,123.64**	**100.0%**	**1,550.7**	**100.0%**

Source: U.S. Census Bureau – USA Trade Online

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Table 4-7. Wisconsin Exports by Commodity (2025)

PRODUCT	EXPORT VALUE (MILLIONS)	% WI EXPORTS VALUE	EST. EXPORT TONNAGE (THOUSANDS)	% WI EXPORTS TONNAGE
Machinery, Except Electrical	$5,077.59	18.7%	88.61	5.7%
Computer & Electronic Products	$4,677.63	17.2%	13.32	0.9%
Transportation Equipment	$2,737.99	10.1%	29.02	1.9%
Chemicals	$2,711.61	10.0%	99.81	6.4%
Food & Kindred Products	$2,503.54	9.2%	402.53	26.0%
Electrical Equipment, Appliances & Components	$2,098.70	7.7%	21.84	1.4%
Plastics & Rubber Products	$1,301.60	4.8%	33.07	2.1%
Fabricated Metal Products, NESOI	$1,267.40	4.7%	17.86	1.2%
Paper	$1,081.83	4.0%	62.40	4.0%
Miscellaneous Manufactured Commodities	$825.02	3.0%	12.45	0.8%
All Other Products	$2,840.72	10.5%	769.75	49.6%
Total All Products	**$ 27,123.64**	**100.0%**	**1,550.66**	**100.0%**

Source: U.S. Census Bureau – USA Trade Online

4.2.2 Global Imports

Imports to Wisconsin represent an inflow of goods from countries external to the state, and an outflow of funds from the state since they are payments made by local companies (importers) to foreign entities (exporters). Imports are also a vital component of Wisconsin's economy, allowing for the specialization of production to reach markets where those goods are demanded.

Over the last decade Wisconsin's largest import partners have been from Asia Pacific Economic Co-operation (APEC) and/or Organization for Economic Co-operation and Development (OECD) nations. Canada and Mexico, members of both trade organizations, have consistently been two of the Wisconsin's top import partners since 2016.

In 2025, Wisconsin imports were valued at approximately $36 billion, as shown in Table 4-7, which also displays the principal origins of Wisconsin's imports. By value, Canada, China, and Mexico were the top origins of Wisconsin's imports, followed by Vietnam and Germany. In terms of tonnage, China (26 percent) and Canada (23 percent) were the largest sources in 2025.

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Table 4-8. Wisconsin's Principal Import Sources (2025)

COUNTRY	IMPORT VALUE (MILLIONS)	% WI IMPORTS VALUE	EST. IMPORT TONNAGE (THOUSANDS)	% WI IMPORTS TONNAGE
Canada	$5,708.05	15.7%	662.4	23.0%
China	$5,246.67	14.4%	737.7	25.7%
Mexico	$5,188.73	14.3%	22.9	0.8%
Vietnam	$3,208.43	8.8%	265.3	9.2%
Germany	$2,599.49	7.1%	107.3	3.7%
India	$1,530.51	4.2%	133.0	4.6%
Ireland	$1,349.38	3.7%	13.5	0.5%
Taiwan	$1,284.32	3.5%	114.5	4.0%
Italy	$997.01	2.7%	81.2	2.8%
France	$900.00	2.5%	26.1	0.9%
All Other Countries	$8,381.56	23.0%	710.1	24.7%
Total All Countries	**$36,394.17**	**100.0%**	**2,873.90**	**100.0%**

Source: U.S. Census Bureau – USA Trade Online

Wisconsin's imports in 2025, by commodity and value, were led by Machinery, Except Electrical ($7.3 billion), Chemicals ($5.2 billion), Computer & Electronic Products ($4 billion), Electrical Equipment Appliances & Components ($3.3 billion), and Transportation Equipment ($2.9 billion) which is shown in Table 4-9.

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Table 4-9. Wisconsin's Imports by Commodity (2025)

PRODUCT	IMPORT VALUE (MILLIONS)	% WI IMPORTS VALUE	EST. IMPORT TONNAGE (THOUSANDS)	% WI IMPORTS TONNAGE
Machinery, Except Electrical	$7,302	20.1%	369.83	12.9%
Chemicals	$5,234	14.4%	136.02	4.7%
Computer & Electronic Products	$3,983	10.9%	46.62	1.6%
Electrical Equipment, Appliances & Components	$3,306	9.1%	198.55	6.9%
Transportation Equipment	$2,854	7.8%	53.47	1.9%
Fabricated Metal Products, NESOI	$2,078	5.7%	200.20	7.0%
Food & Kindred Products	$1,284	3.5%	123.56	4.3%
Apparel & Accessories	$1,248	3.4%	72.83	2.5%
Plastics & Rubber Products	$1,207	3.3%	154.40	5.4%
Paper	$1,145	3.1%	178.91	6.2%
All Other Products	$6,743	18.5%	1,339.51	46.6%
Total All Products	**$36,385**	**100.0%**	**2,873.90**	**100.0%**

Source: U.S. Census Bureau – USA Trade Online

4.3 Connection to North American Economy

As seen in the previous section, Canada and Mexico accounted for over 42 percent of Wisconsin's exports and 30 percent of Wisconsin's imports in 2025. This trade surplus is evidence of the importance to the growth of Wisconsin's economy and that trade with these neighboring nations enriches Wisconsinites. Machinery, Except Electrical, was Wisconsin's largest export industry in 2025 (18.7 percent of exports) with Canada and Mexico being the two largest purchasers of goods from this industry (29.2 percent and 13.1 percent of industry exports, respectively). Further, foreign direct investment into Wisconsin from Canadian-owned businesses employed over 21,000 people.[3] Trade between Wisconsin and these nations is further strengthened by supply chain integrations supporting ease of movement across many industries.

4.4 Freight-Related Industries and Supply Chains

Freight movement is rarely a single move from an origin point to a final consumer. From agriculture to mineral ores, raw materials are routinely transformed and combined into other products multiple times, with each stage of the process and each input stream a separate freight movement. Before the initial raw materials are obtained, freight movements are required to bring in seeds, fertilizers, tractors, and other mechanical equipment. Even products that are consumed as grown or extracted (such as fruits and vegetables or sand and gravel) are transported to processing facilities that clean and sort these products before they are available at a retail level.

To assess the freight movements that create the supply chain of converting raw materials to processed goods and then merchandise, the Wisconsin State Freight Plan followed a methodology that separates the processes into three phases, each of which has critical economic sectors within those phases.[4]

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This section will highlight Wisconsin's largest primary, secondary, and tertiary economic sectors, along with typical freight movements through their supply chains.

4.4.1 Primary Industry Sectors

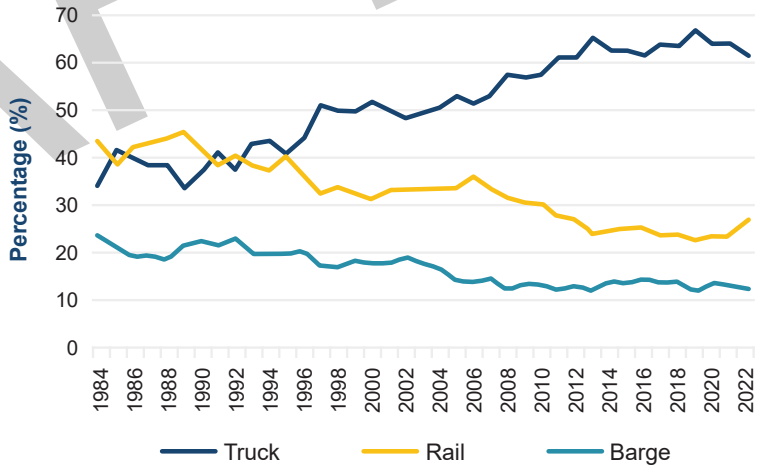
The first stage of many supply chains begins with industries that extract or harvest raw materials from the earth. These are commonly referred to as the primary-sector industries. Raw material movements are primarily bulk products, transported in large volumes by pipeline, barge, and railcar. In Wisconsin, primary industry sectors include agriculture, forestry, and aggregate mining.

4.4.1.1 Agriculture

According to the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP), agriculture contributes $116.3 billion to the state's economy. Within the broad agriculture sector, specific sub-sectors are key to the state economy: dairy, feed and seed crops, and fresh fruits and vegetables. The dairy subsector alone contributes $52.8 billion per year,[5] while production of Wisconsin's largest feed and seed crops (corn, soybeans, hay, and wheat) was valued at $4.51 billion in 2025. The major vegetable crops (snap beans, cabbage, sweet corn, potatoes, cucumbers, and green peas) had a market value over $600 million in 2025. Separately, cranberry production in the state was valued at $173 million.[6] Initial transportation of perishables (vegetables and dairy) relies on trucking (including specialized refrigerated milk trucks) to bring these items to processing facilities.

Transportation of grains to market requires a robust multimodal system and can flow through several different supply chains. For grains, typical movement is by truck from harvested fields to storage sites, then again by truck to larger facilities with rail service. From there, some product is sent by rail or truck to processing facilities to be turned into, for example, ethanol, food products, or animal feeds. These products are generally consumed domestically. Other loads are sent by rail to ports and harbors for transloading into barges (on inland rivers) or bulk vessels (on the Great Lakes) for export. These waterways also bring in fertilizer as part of the agricultural supply chain. Figure 4-3 shows that since the 1980s, domestic grain transportation has shifted towards trucking and away from rail and barge. Table 4-10 shows that the mode choice for grain transportation varies both by grain type and by market.[7]

Figure 4-3. U.S. Grain Modal Shares, 1984-2022



Source: USDA

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Table 4-10. Select Agricultural Commodities Mode Share Summary: Five-Year Average, by Percent (2018-2022)

MODE/YEAR	CORN			SOYBEANS			ALL GRAINS		
	Export	Domestic	All	Export	Domestic	All	Export	Domestic	All
Rail: 5-year avg	37	16	19	30	13	21	39	18	24
Barge: 5-year avg	50	0	9	52	2	25	45	1	13
Truck: 5-year avg	13	84	72	19	85	54	16	81	64

Source: USDA

By comparison with grains, Wisconsin's fruit and vegetable crops are more dependent on trucking. Even more dependent on trucking is the dairy sector, since refrigeration and perishability are paramount concerns in the dairy products supply chain.

Of note, Wisconsin exported $3.97 billion of agricultural and food products to 151 nations in 2024. The top export markets include Canada, Mexico, China, Korea, and Japan.[8]

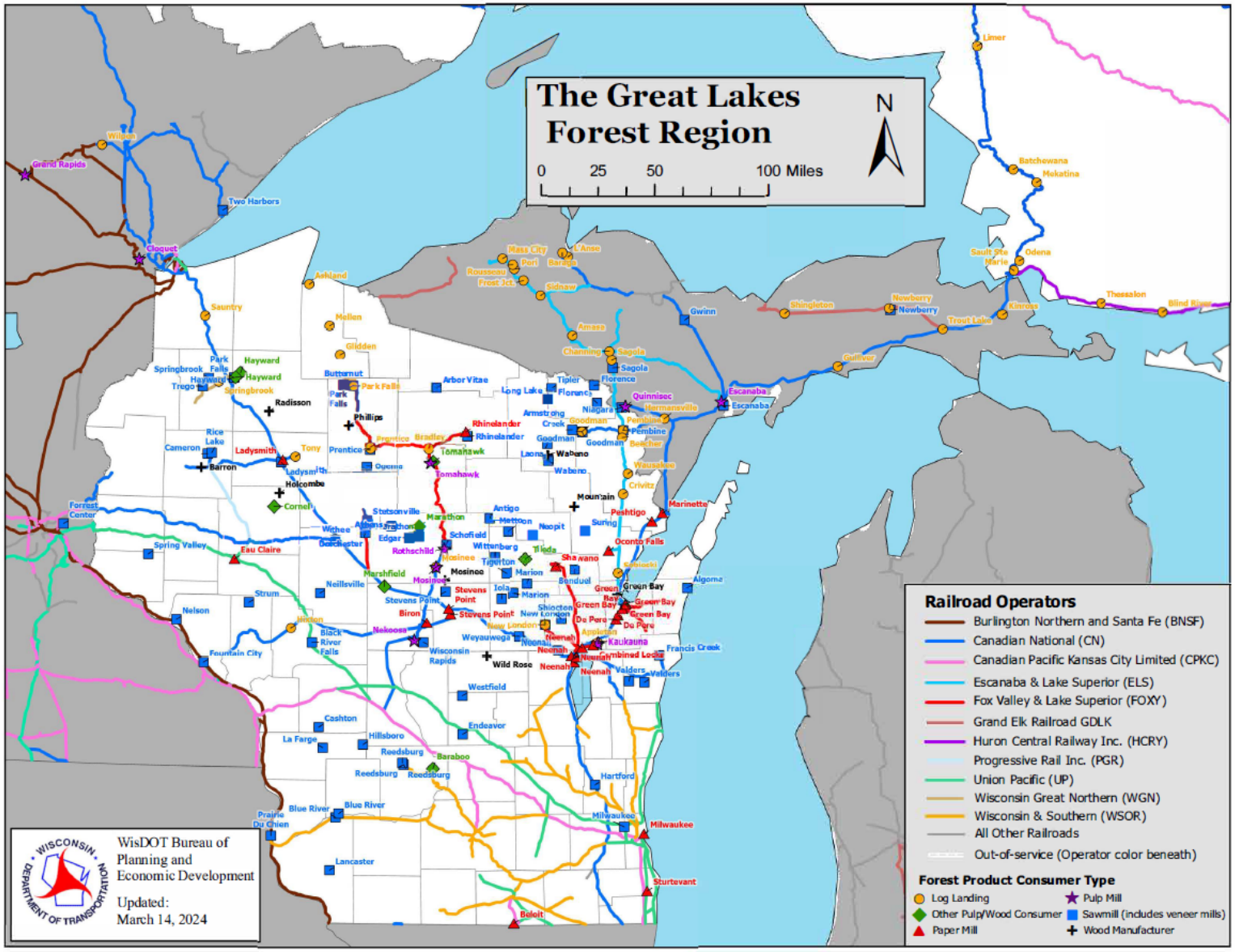
4.4.1.2 Forestry

Wisconsin's forestry is primarily driven by demand for pulpwood, the base source of material for paper products. In 2018, pulpwood production was 2.01 million cords. Fuelwood harvests are much smaller; just over 57,000 cords were harvested in 2018. In addition to these categories, saw logs, composite panel wood, and veneer logs comprise other significant outputs from Wisconsin forest lands.[9]

As shown in Figure 4-4, most of the primary forestry activity is in the northeastern part of the state. Log landings along rail lines serve as collection points for pulpwood to be loaded and shipped to paper-making facilities, as the products move from the primary to the secondary tier. Trucking on local roads and state highways brings the logs to the landing sites, or directly to paper mills or sawmills.

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Figure 4-4. Forest Product Consumers



4.4.1.3 Aggregates

Aggregates are the non-minerals that are mined for use in construction and other applications. Wisconsin's bedrock consists of three primary types of stone: granite, sandstone, and limestone/dolomite.

According to the National Stone, Sand and Gravel Association, citing the Mine Safety and Health Administration, in 2025, Wisconsin was home to 607 mines that produced 27.5 million metric tons of crushed stone and 28.4 million tons of sand and gravel.[10] Typical transportation of aggregate is by dump truck on state, county, and local roads to processing facilities.

4.4.2 Secondary Industry Sectors

The secondary sector of an economy is comprised of businesses that convert raw materials into finished or usable products through manufacturing or construction, transforming raw materials into durable and nondurable goods that either flow to other businesses as inputs into their production, or are sold directly to the consumer. Businesses in the secondary sector of the economy are both large receivers of freight and large generators of freight.

4.4.2.1 Agriculture

Raw agricultural products take many supply chain pathways through Wisconsin's secondary sector. Eight of the ten largest food companies in the world have operations in Wisconsin. The Wisconsin Economic Development Corporation identifies nearly 3,900 companies in the food and beverage production sector.[11]

The moniker "America's Dairyland" still applies to Wisconsin, with 32 billion pounds of milk—14 percent of national production—in 2024.[12] The state's cheesemakers produced 25 percent of the total national cheese volume in 2024, a total of 3.5 billion pounds. Wisconsin currently counts around 5,100 dairy farms with a total of 1.27 million cows.[13] Typical transportation in this sector includes milk haulers on local, county, and state highways collecting milk from farms, then delivering it to dairies for processing into pasteurized milk, cheese, yogurt, and other products. Cold chain truck freight is essential for this sector.

As noted earlier, Wisconsin is a major producer of vegetable crops and potatoes. By weight, the largest yield is potatoes; the 2023 harvest tallied almost 2.9 billion pounds of production in the state, ranking Wisconsin as the third-highest state for potato production.[14] The uses of these include fresh (37 percent), process chips (27 percent), process frozen (23 percent), and seed (13 percent).[15] Other crops which rank Wisconsin in the top five states for production include snap beans (#1, 428 million pounds), sweet corn (#3, 858 million pounds), cabbage (#3, 245 million pounds), and green peas (#3, 84.6 million pounds).[16] To transport these items from processing facilities to market, trucking and rail (especially temperature-controlled truck trailers and rail cars for frozen vegetables) are the dominant transportation needs for this sector, but all modes are used in distributing final products across North America and beyond.

Wisconsin is a major domestic producer of meat, with 452 meat processing establishments.[17] Just-in-time deliveries of animals to processing facilities, along with cold chain transportation of processed meat, are crucial to this sector.

In 2023, Wisconsin's beer production was 9.7 million barrels, ranking it as the seventh-highest state. Both inputs (malted barley, hops, aluminum cans, and glass bottles) and outputs (canned/bottled/barreled beer) require rail and truck supply chains of varying lengths, including cold chain.[18]

According to the U.S. Energy Information Administration, Wisconsin ranks eighth among states for ethanol output, with the state's nine facilities capable of producing up to 681 million gallons of fuel ethanol per year, using corn grown in-state as a primary feedstock.[19] In 2025, around 681 million gallons of fuel ethanol was produced in Wisconsin.[20] Inbound rail (including the state's shortline system) and trucking are critical to inbound delivery of grains. Rail tank cars distribute ethanol to refineries around the nation, using shortline connections to Class I railroads as part of the supply chain for finished product.

4.4.2.2 Forest Products

As shown earlier in Figure 4-4, many of the facilities that use raw timber in the state are located near the sources, as paper mills were concentrated along the Fox River in Outagamie and Brown Counties, and along the Wisconsin River in Marathon and Wood Counties. Wisconsin is the top state for papermaking in the U.S., with more than 200 companies involved in pulp and paper converting.[21] The sector generates $1.2 billion in annual exports, $763 million

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of which are paper products. Total annual sales of Wisconsin's forest products are $20 billion.[22]

Rail connections, especially between the forests and mills, are crucial supply chain links, with state and local roads also essential for covering gaps in rail availability. Trucking and rail freight are also essential for the distribution of paper products; the wood products sector relies on containerized intermodal freight for exports of finished cabinets and flooring.

4.4.2.3 Manufacturing

Manufacturing has been an integral component of Wisconsin's economy for more than 150 years. With almost 470,000 manufacturing jobs, the state has the second-highest percentage of employment in manufacturing in the nation. More than 8,900 companies, many with global reach, are identified as part of Wisconsin's manufacturers. Sub-sectors that have joined historic foundry and metal fabrication industries include advanced manufacturing areas such as electrical equipment.[23]

Within the Energy, Power, and Controls sub-sector, Wisconsin identifies nearly 8,000 companies operating in the state. Key products include energy storage systems, electric regulation systems, and portable electric generators.[24] The equipment manufactured in Wisconsin has global reach, with lighter, high-value items utilizing air cargo; other markets across North America utilize trucking and rail. Other larger and heavier components use waterborne freight, either by vessel across the Great Lakes, barges along the inland waterways, or overseas vessels carrying project cargoes to international locations.

The transportation equipment sub-sector in Wisconsin includes motorcycles, naval vessels, emergency response vehicles, and military trucks. Winnebago, Marinette, and Outagamie Counties are the locations of manufacturing concentration.[25] Transportation of these products utilizes the Great Lakes, shortline and Class I rail, and state and interstate highways.

The biohealth sub-sector has a $37.7 billion economic impact, with more than 2,200 companies contributing to that output. Medical device manufacturers account for 220 of these companies. Biopharmaceuticals and active pharmaceutical ingredients (89 establishments) are also important components within this sub-sector. Of note, Wisconsin suppliers provide products worth $7.8 billion to the bio-health sub-sector, demonstrating an inter-connectivity that show these supply chains more accurately resemble supply chain webs.[26] Given the high value and precision of the equipment and pharmaceutical ingredients, this sub-sector has a high use of air freight and trucking for freight movement.

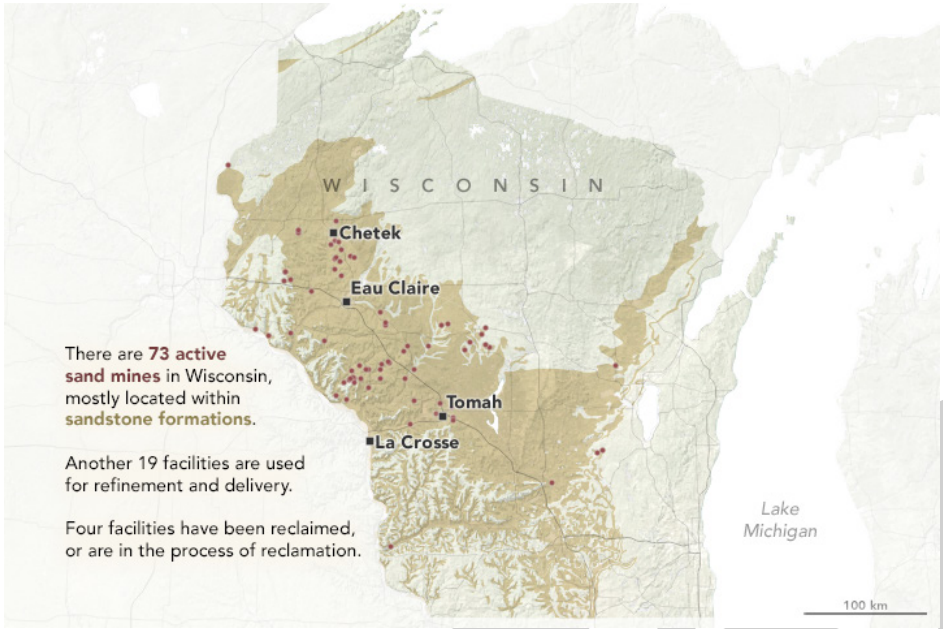
According to a report by Wisconsin Manufacturers and Commerce, in 2024 the state's manufacturers sold $209 billion of manufactured goods and generated an estimated $42.8 billion in earnings.[27] As shown on Table 4-7 and Table 4-9, the top categories of imports (by value) into the state closely match those of the top exports, demonstrating the highly integrated global supply chains involved in modern manufacturing.

4.4.2.4 Aggregates

The secondary use of aggregates from Wisconsin varies greatly. In many cases, aggregates remain relatively close to where they were mined, as crucial components for road building. Aggregates typically comprise 60 to 80 percent of concrete and over 90 percent of asphalt. Short-distance trucking and longer-distance rail and barge movement (to cement and concrete plants, or for riprap for erosion protection) are typical supply chain moves for this material.

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Figure 4-5. Sand Mines and Deposits, 2017



Source: science.nasa.gov/earth/earth-observatory/sand-rush-in-wisconsin-91835

Figure 4-5 shows Wisconsin sand deposit regions and mine locations in 2017, near the peak of production. As of 2022, industry estimates were that Wisconsin produced about 35 million tons of industrial sand, about one-third of national production. In addition to the Permian Basin, other markets currently supplied by rail include the Canadian province of Alberta.[28]

4.4.3 Tertiary Industry Sectors

The tertiary industry sector is primarily comprised of commerce and trade industries, which includes both wholesale and retail businesses. Trade industries by nature attract and receive high volumes of freight deliveries, as well as hold significant volumes of inventory awaiting sale. Products range from durable goods like cars and trucks, furniture, electronics, and appliances, to nondurable goods like gasoline, food and beverages, clothing, and even raw materials or product components.

Historically, warehousing and wholesale trade has clustered near production facilities, such as dry storage for paper products in the regions adjacent to paper mills, or temperature-controlled storage near food and beverage production facilities in the Milwaukee area, the Fox Valley, Dane County, Rock County, and Central Wisconsin. Notably, over the past two decades, Wisconsin has witnessed a growth in warehousing activity along I-94 at both ends of the state—across the border from Illinois in Kenosha and Racine Counties, and across the border from Minnesota in St. Croix, Menomonie, and Eau Claire Counties.

Other important sectors in Wisconsin rely on freight movement, even though they are not freight generators. Tourism relies on deliveries of food and beverages to establishments in recreational areas and relies on delivery of the equipment used for many recreational pursuits – from boat motors to snowmobiles to bicycle tires.

Hospitals also rely on deliveries of high-value medical equipment, pharmaceuticals, protective clothing, and food. One unusual multimodal freight movement used overseas and oversize/overweight (OSOW) shipping for delivery of a 66-ton hyperbaric chamber from Australia to a hospital in Milwaukee.[29]

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Figure 4-6. Delivery of Hyperbaric Chamber to Aurora St. Luke's Hospital, Milwaukee



Source: The Center for Comprehensive Wound Care & Hyperbaric Oxygen Therapy, Facebook post June 1, 2012

Due to the last-mile nature of tertiary freight, trucking is the vastly dominant mode, with the interstate and state highways, and county and other local roads all sharing roles in the movement of freight deliveries.

4.5 Freight Movement

Wisconsin's multimodal transportation system carries both people and goods from their origin to their destination. WisDOT, as a steward of that system, coordinates investments in the critical infrastructure needed to support and enhance the state's economy. These efforts facilitate the safe and efficient movement of goods on the state's roadways, railways, waterways, airports, pipelines, and through intermodal facilities.

The following sections note tonnage and value forecasts by mode, while Section 5.3 provides a modal snapshot of each mode, including a summary of system assets.

4.5.1 Freight Flows

Wisconsin's freight system is projected to grow steadily across all modes in the coming decades, with trucking remaining the dominant carrier of goods, rail seeing substantial increases driven largely from passthrough traffic, and waterborne freight continuing to play a smaller but stable role. Air cargo is expected to expand as businesses rely more on fast, high-value shipments, especially with new capacity coming online in Milwaukee. Pipeline movements remain difficult to forecast due to limited data access. Altogether, these trends point to rising freight demand and the need for continued planning and investment to support Wisconsin's future transportation needs.

4.5.2 Freight Forecasts

To meet the freight transportation needs of tomorrow, WisDOT needs to begin preparing today. This section outlines the estimated growth in freight tonnage and value by mode transported from, to, within, and through Wisconsin for target years 2034 and 2050.

WisDOT's primary tool for freight forecasting is the Transearch Multimodal forecasting database. The Transearch database provides freight forecasts starting with a base year of 2017 and extending as far as 2050. The Transearch database utilizes a multitude of mode-specific data sources to create a picture of the nation's freight traffic flows on a market-to-market commodity basis.

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Figure 4-7 provides estimates for tonnage and value of freight shipments by mode for 2034 and 2050. Overall, tonnage across all modes is expected to increase from 703 million tons in 2023 to 833 million tons in 2034 and to 1.1 billion tons in 2050; an increase of 18.5 percent and 54.4 percent.

Freight shipment values across all modes are predicted to increase as well, from over $836 billion in 2023 to approximately $938 billion in 2034 and to $1.1 trillion in 2050, which is an increase of 12.2 percent and 36.4 percent between the dates.

Table 4-11. Wisconsin Modal Volumes 2023, 2034, and 2050 (tons)

MODE	2023 ACTUAL	2034 FORECAST	2050 FORECAST
Highway	489,393,504	543,034,918	631,660,268
Rail	193,380,283	264,301,202	416,312,457
Waterborne	19,879,017	25,668,938	37,231,836
Air	81,783	119,909	209,192

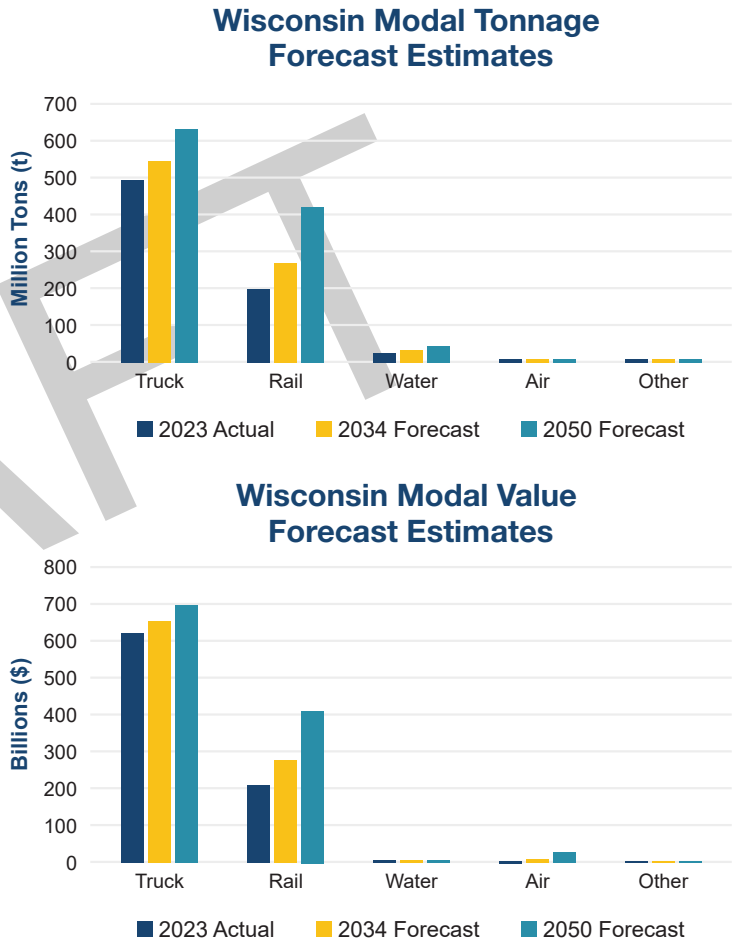
Source: S&P Transearch Data

Table 4-12. Wisconsin Modal Values 2023, 2034, and 2050

MODE	2023 ACTUAL	2034 FORECAST	2050 FORECAST
Highway	$620,337,112,323	$651,316,015,237	$699,092,627,386
Rail	$208,162,225,230	$274,654,931,702	$411,080,974,820
Waterborne	$4,584,383,821	$4,627,939,057	$4,691,556,369
Air	$3,316,579,971	$7,696,913,405	$26,192,701,877

Source: S&P Transearch Data

Figure 4-7. Wisconsin Modal Tonnage and Value Forecast Estimates



Source: 2017 & 2023 S&P Transearch Databases

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4.5.2.1 Highway Freight Forecasts

By both volume (in tonnage) and value (in dollars), freight shipments by truck account for the highest shares of freight shipments by mode, and will continue to do so during the duration of the Freight Plan's forecast period. In 2023, the volume of truck freight in Wisconsin was 489.4 million tons. This volume is expected to grow by 11.0 percent to 543.0 million tons in 2034. By 2050, the volume is expected to be 631.7 million tons, a 29.1 percent growth in tonnage over the 2023 base year. Trucking's share of freight in Wisconsin by volume is expected to shrink from 69.6 percent in 2023, to 65.2 percent in 2034 and 58.2 percent in 2050.

The amount of freight moved by truck in Wisconsin, as measured by value, is also expected to see similar growth. In 2023, the value of truck freight in Wisconsin was $620.3 billion. This value is projected to grow by 5.0 percent to $651.3 billion in 2034. By 2050, the value is forecast to be $699.1billion, a 12.7 percent growth in value over 2023. Trucking's share of freight in Wisconsin by value is forecast to fall from 74.2 percent in 2023, to 69.4 percent in 2034, to 61.3 percent in 2050.

4.5.2.2 Freight Rail Forecasts

Rail freight will continue to have significant shares of volume and value during the plan's forecast period. In 2023, the volume of rail freight in Wisconsin was 193.4 million tons. This volume is projected to grow by 36.7 percent to 264.3 million tons in 2034. By 2050, the volume is forecast to rapidly grow to 416.3 million tons, a 115.3 percent growth in tonnage from 2023. Rail's share of freight in Wisconsin by volume is projected to grow from 27.5 percent in 2023, to 31.7 percent in 2034 and 38.4 percent in 2050.

As measured by value, the amount of freight moved by rail in Wisconsin is also projected to see similar growth. In 2023, the value of rail freight in Wisconsin was $208.2 billion. This value is forecast to grow by 31.9 percent to $274.7 billion in 2034. By 2050, the value is forecast to be $411.1 billion, a 97.5 percent growth in value over 2023. Rail's share of freight in Wisconsin by value is projected to rise from 24.9 percent in 2023, to 29.3 percent in 2034 and 36.0 percent in 2050. It should be noted that Wisconsin is mainly a pass-through state for rail freight, with much of that freight moving overhead, to and from origins and destinations outside the state.

4.5.2.3 Waterborne Freight Forecasts

Waterborne freight is forecast to experience significant growth in volumes but see little growth in values during the plan's forecast period. In 2023, the volume of waterborne freight in Wisconsin was 19.9 million tons. This volume is projected to grow by 29.1 percent to 25.7 million tons in 2034. By 2050, the volume is forecast to rapidly grow to 37.2 million tons, an 87.3 percent growth in tonnage from 2023. The maritime share of freight in Wisconsin by volume is forecast to rise slightly, from 2.8 percent in 2023, to 3.1 percent in 2034 and 3.4 percent in 2050.

By contrast, the value of freight moved by water in Wisconsin is projected to change very little. In 2023, the value of maritime freight in Wisconsin was $4.58 billion. This value is forecast to grow by 1.0 percent to $4.63 billion in 2034. By 2050, the value is forecast to be $4.69 billion, a 2.3 percent growth in value over 2023. Given that other modes are projected to see the value of their freight grow significantly, the share of maritime freight in Wisconsin by value is expected to remain low, from 0.55 percent in 2023, to 0.49 percent in 2034 and 0.41 percent by 2050.

4.5.2.4 Air Cargo Forecasts

Although air cargo is the smallest sector by weight, it is projected to witness significant growth in volume and value during the plan's forecast period. In 2023, the volume of air freight in Wisconsin was 81,783 tons. This volume is forecast to grow by 46.6 percent, to 119,909 tons in 2034. By 2050, the volume is projected to rapidly grow to 209,192 tons, a 155.8 percent growth in tonnage from 2023.

The value of air cargo in Wisconsin is forecast to see exponential growth over the plan period. In 2023, the value of rail freight in Wisconsin was $3.32 billion. This value is projected to grow by 132.1 percent to $7.70 billion in 2034. By 2050, the value is projected to expand to $26.19 billion, a 689.8 percent (almost seven-fold) growth in value over 2023.

While air cargo movement represents a relatively small percentage by volume of overall trade, this relatively low-weight, time-sensitive, and high-value freight is important to Wisconsin's economy. The forecast increase in air freight movement reflects a continuing business trend toward adopting just-in-time logistics practices where production flexibility and delivery speed are essential.

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Milwaukee's General Mitchell Airport is nearing completion of their new international air cargo facility, which is expected to open by the end of 2026. The 330,000 square foot facility is being developed to provide improved international air cargo service to Milwaukee and potentially serve as a reliever to O'Hare.[30] The effect of this new facility on air freight forecasted tonnage and value will be significant, although it is difficult to quantify at this time since the facility is not yet operational and market conditions will have a large effect on volumes.

4.5.2.5 Pipeline Forecasts

Pipeline infrastructure and data are owned and maintained by private entities. Further, today's heightened security environment has resulted in pipeline-related data being highly inaccessible to the public. The Freight Analysis Framework does attempt to estimate flows by pipeline, using a synthetic process. These estimates are very rudimentary, and while perhaps acceptable for estimating petroleum pipeline movements between large regions, they are not suitable for determining county-to-county flows of the type that are reported in the data collection software that WisDOT uses.

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5

System Inventory and Performance Indicators

CHAPTER 5 ▪ WISCONSIN STATE FREIGHT PLAN

2027

5. System Inventory and Performance Indicators

5.1 Freight Networks

The United States transportation system is a vast, complex network of over seven million miles of highways, local roads, railways, navigable waterways, and pipelines. The components of this system are linked to each other through a multitude of hubs, consisting of warehouses, seaports, airports, and intermodal facilities. This system accommodates the movement of goods, from raw materials to finished products, from all sectors of the country's economy.

The United States multimodal transportation system offers an advanced platform for the efficient, reliable, safe, flexible, and resilient movement of freight. The system connects Wisconsin's key gateways and corridors to the nation and plays an important role in linking Wisconsin to the global economy. The economic productivity of Wisconsin is dependent on the overall transportation performance of the United States transportation system as well as Wisconsin's own transportation system. Therefore, it is important to examine the connections between the two.

5.1.1 National Multimodal Freight Network (NMFN)

Recognizing the importance of multimodal connections, the Fixing America's Surface Transportation (FAST) Act directed the U.S. DOT to establish the National Multimodal Freight Network (NMFN). As of the January 2025 Federal Register Notice, 'Draft Designation of National Multimodal Freight Network and State Input Process', the following components made up the draft National Multimodal Freight Network.

Draft National Multimodal Freight Network (NMFN) Components

- **Highway Network:** Primary Highway Freight System (PHFS), interstates, Strategic Highway Network (STRAHNET), and high volume freight corridors
  - 78,274 total miles
- **Rail Network:** Intermodal routes, Strategic Rail Corridor Network (STRACNET), and major freight carrying rail lines
  - 80,309 total miles
- **Marine Ports:** High tonnage ports and designated strategic seaports
  - 140 total ports
- **Waterways:** High use and moderate use inland and coastal navigation routes
  - 21,329 total miles
- **Air Cargo Airports:** Airports with nationally significant freight volumes
  - 65 total airports
- **Other Strategic Freight Assets:** Intermodal terminals and pipeline connected facilities
  - 230 of 241 intermodal terminals within 1 mile of the Network
  - 1,056 of 1,401 pipeline terminals within 1 mile of the Network

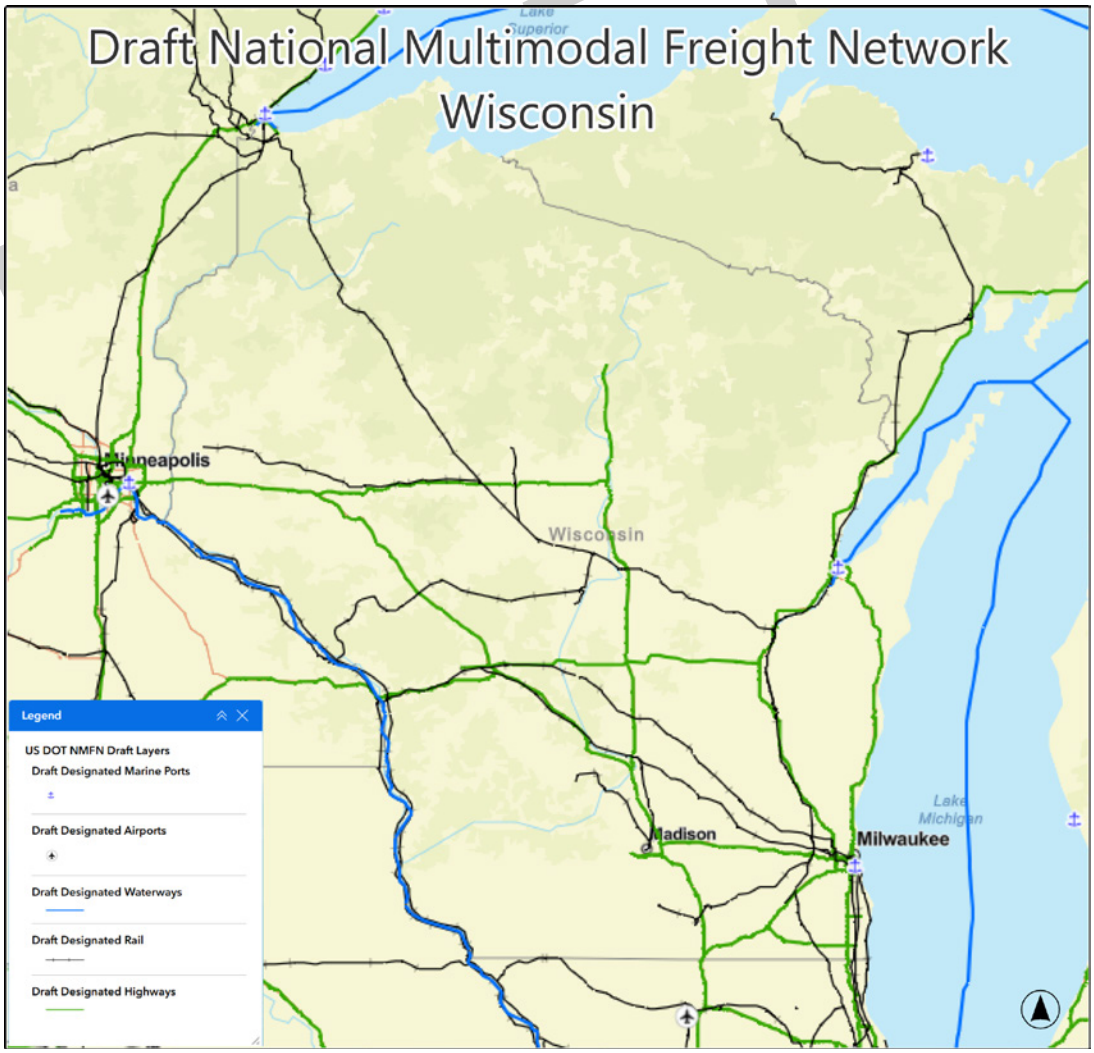
The extent of the Draft NMFN in Wisconsin (pending updates and final U.S. DOT approval) is shown in Figure 5-2.

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Figure 5-1. Draft National Multimodal Freight Network



Figure 5-2. Draft National Multimodal Freight Network - Wisconsin



5.1.2 National Highway Freight Network (NHFN)

In addition to the NMFN, the FAST Act directed the FHWA Administrator to establish a National Highway Freight Network (NHFN) to aid in strategically directing federal resources and policies toward improved performance of highway portions of the United States freight transportation system. The NHFN identifies roadways to help direct resources towards improving system performance for efficient movement of freight on highways. The NHFN includes the following subsystems of roadways:

- **Primary Highway Freight System (PHFS):** A network of highways identified as the most critical highway portions of the United States freight transportation system determined by measurable and objective national data. The network consists of 41,799 centerline miles, including 38,014 centerline miles of interstate and 3,785 centerline miles of non-interstate roads.[1]
- **Critical Rural Freight Corridors (CRFCs):** Public roads not in an urbanized area that provide access and connection to the PHFS and interstate with other important ports, public transportation facilities, or other intermodal freight facilities.
- **Critical Urban Freight Corridors (CUFCs):** Public roads in urbanized areas that provide access and connection to the PHFS and interstate with other ports, public transportation facilities, or other intermodal transportation facilities.[2]
- **Other interstate portions not designated as part of the PHFS:** Highways consisting of the remaining portion of interstate roads not included in the PHFS. These routes provide important continuity and access to freight transportation facilities. These portions amount to an estimated 10,265 centerline miles of interstate nationwide and will fluctuate with additions and deletions to the Interstate Highway System.

In Wisconsin, more than 1,100 miles are a part of the NHFN, including 654 miles of PHFS, 256 miles of non-PHFS interstate, 143 miles of CRFCs and 73 miles of CUFCs.

While original mileages were established in the FAST Act, the updated mileage limits in the IIJA allow for a maximum of 300 miles of CRFCs or 20 percent of PHFS mileage (whichever is greater), and a maximum of 150 miles of CUFCs or 10 percent of PHFS mileage (whichever is greater) in Wisconsin. Southeastern Wisconsin Regional Planning Commission (SEWRPC) is the one metropolitan planning organization (MPO) in the state (population > 500K) with the ability to designate its corridors, in collaboration with WisDOT.

WisDOT and MPOs (for urbanized areas over 500,000) are responsible for jointly determining how to distribute the CUFC mileage among the urbanized areas. WisDOT must consult with SEWRPC on CUFC designation, however, WisDOT facilitated CUFCs designation with all Wisconsin MPOs to determine the appropriate distribution of mileage (and subsequent funds) to all urban areas in the state. In 2019, FHWA approved WisDOT's CRFC and CUFC nominations. See WisDOT's Critical Corridor Submittal Package[3] for corridor details, mileage tables, and maps. A map of Wisconsin's National Highway Freight Network is shown in Figure 5-3 for referencing.

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Figure 5-3. National Highway Freight Network (NHFN)



5.1.3 Strategic Military Networks

Two networks relevant to strategic freight movements for military defense are included in the definition of the NMFN.

- **STRAHNET (Strategic Highway Network):** This network consists of roadways critical to the Department of Defense's (DOD) domestic operations. In Wisconsin, this consists of I-94, I-39, I-43, I-41, I-90, and portions of WI 21.
- **STRACNET (Strategic Rail Corridor Network):** These corridors have been determined critical to DOD domestic operations. In Wisconsin, STRACNET consists of the CPKC Railway line between Kenosha and La Crosse.

Two army bases (Fort McCoy, Camp Douglas) are in Wisconsin. These locations provide facilities and support for the training and readiness of military personnel for all branches of the U.S. Armed Forces. Additionally, Army National Guard units in Wisconsin include the following locations:

- 32nd "Red Arrow" Infantry Brigade Combat Team, Camp Douglas
- 64th Troop Command, Madison
- 157th Maneuver Enhancement Brigade, Milwaukee
- 426th Regiment (Regional Training Institute), Fort McCoy

Wisconsin Air National Guard units operate out of the Madison and Milwaukee civilian airports, with an additional unit at Volk Field. In Oshkosh, the Joint Program Office (JPO) for Joint Light Tactical Vehicle (JLTV) was designated as a defense site according to STRACNET 2023 edition.

The conditions and performance of the military freight systems in Wisconsin align to the condition summaries and performance measures described in the previous modal summaries for the highway freight and freight rail in Wisconsin. There are no known military freight issues in Wisconsin currently.

Figure 5-4. Wisconsin Military Freight Networks



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5.2 Performance Measures

Management of the transportation system requires comprehensive data, appropriate measures, and a consistent method for assessment. A key component of this assessment is the development and application of performance measures.

WisDOT is the steward of the transportation system and manages the state's transportation funding to deliver a safe and efficient transportation system. The continuous effort to use public dollars in the most efficient and cost-effective way requires accountability. Although accountability does not directly measure freight movement, it promotes overall efficiency, which positively impacts freight.

5.2.1 WisDOT's Performance Improvement Program

WisDOT's performance improvement program is known as MAPSS, which stands for Mobility, Accountability, Preservation, Safety, and Service (MAPSS). The department's freight-related MAPSS performance measures are focused, measurable, and drive performance improvement. They support analysis of freight-specific mobility needs by providing a comprehensive, objective, and consistent set of metrics to assess system condition, identify issues, prioritize investments, and measure the effectiveness of actions. Many of these are described in detail in Chapter 5, but are summarized in red text in Table 5-1.

WisDOT's performance improvement program includes measures that meet IIJA requirements. The performance measures associated with each core goal guide WisDOT in achieving the department's mission to provide leadership in the development and operation of a safe and efficient transportation system. Public quarterly reports summarize and monitor the direction and degree to which WisDOT is meeting each goal.

5.2.2 Federal Freight Performance Measure

Section 5.3.1.4 discusses the Truck Travel Time Reliability Index, which was instituted as a freight reliability measure by FHWA in 2017.

Table 5-1. WisDOT MAPSS Performance Improvement Program Measures (Freight-Related Measures in red)

MOBILITY	ACCOUNTABILITY	PRESERVATION	SAFETY	SERVICE
• **Delay** • **Reliability** • Transit Availability • Bicycling Conditions on Rural Highways • **Incident Response** • **Winter Response**	• **TEA Grants** • Timely Scheduling of Contracts • **On-time Performance** • On-budget Performance • Surplus Property Management • Disadvantaged Business Enterprise Program	• Program Effectiveness • **State Highway Pavement Condition** • (Backbone and Non-Backbone) • **State Bridge Condition** • **State-owned and State-supported Rail Line Conditions** • **Airport Pavement Condition** • Material Recycling • **Local Bridge Condition** • Local Road Pavement Condition	• **Traffic Fatalities** • **Serious Traffic Injuries** • **Traffic Crashes** • **Safety Belt Use**	• DMV Wait Times • DMV Electronic Services • DMV Driver License Road Test Scheduling • DMV Phone Service • DMV Email Services

Source: Wisconsin Department of Transportation, MAPSS, 2026

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5.3 Modal Snapshots

This section provides an inventory of the five freight transportation modes serving the State of Wisconsin: highways, railroads, ports and waterways, aviation, and pipeline. The following metrics are used to summarize the performance of each mode:

- Condition
- Utilization
- Safety
- Performance

5.3.1 Highway System



WISCONSIN ROADWAYS HIGHLIGHTS

116,000 roadway miles

11,700 state, federal and interstate highway miles

5,955 National Highway System miles

14,000+ bridge structures

Top Commodities: farm products, nonmetallic minerals (sand/rock/gravel), food or similar products, petroleum and coal products, clay, concrete, glass, and stone.

This section indicates that Wisconsin's highway system remains in strong overall condition due to ongoing investment in pavement preservation, bridge inspections, and routine maintenance, with WisDOT continuing to meet or exceed most performance targets for highway pavement quality, bridge condition, travel time reliability, and winter maintenance. While the overall transportation network remains safe, reliable, and well maintained, increasing congestion in metropolitan areas and rising vehicle hours of delay highlight emerging challenges. Continued investment in infrastructure preservation, capacity improvements, congestion management, and effective asset management will be critical to maintaining system performance, supporting freight movement, and ensuring long-term mobility and economic growth across Wisconsin.

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5.3.1.1 Highway Conditions

Highway infrastructure that is in good condition promotes safe and efficient movement of people and products throughout Wisconsin.

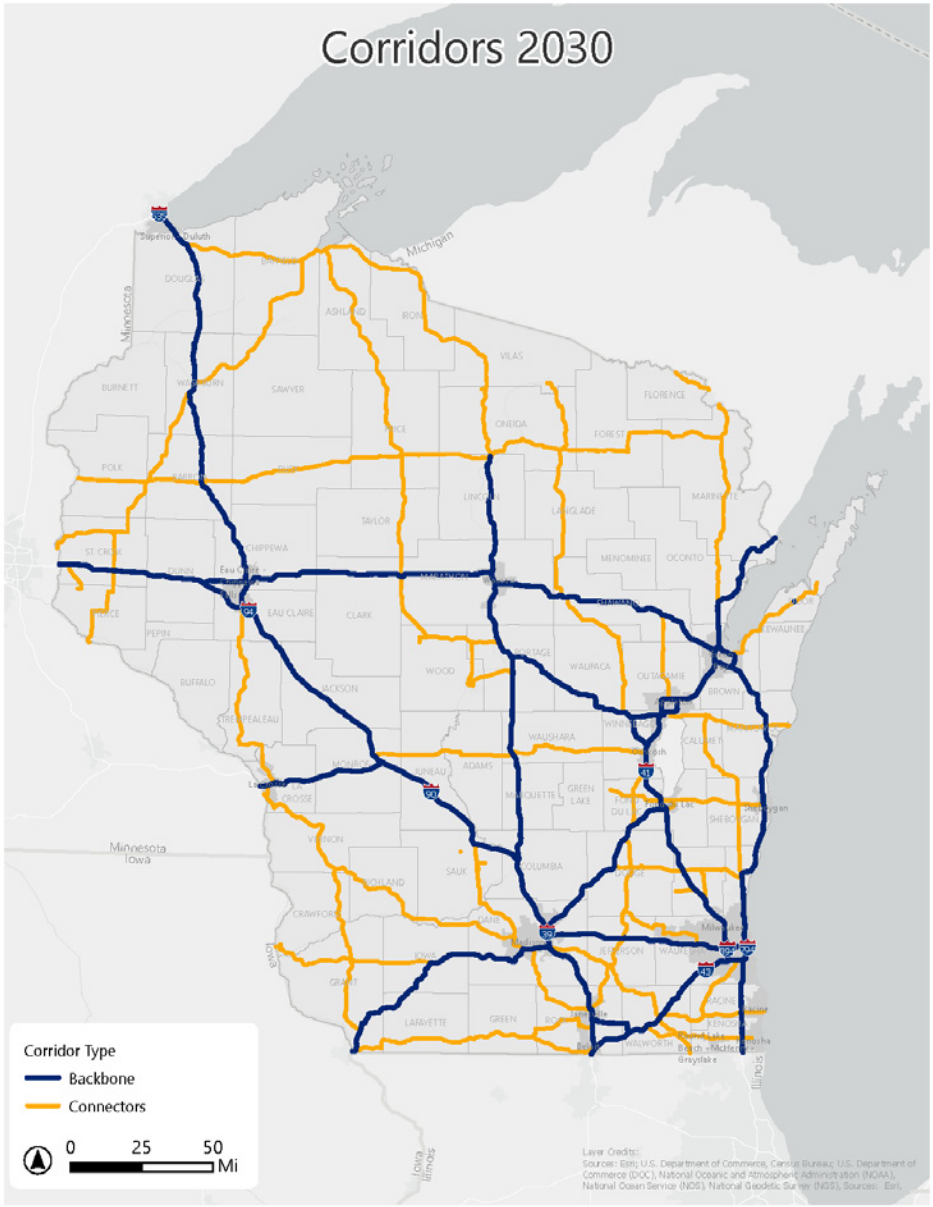
Pavement Quality

Wisconsin's State Trunk Highway (STH) system consists of approximately 11,700 centerline miles of interstate highways, United States highways, and state trunk highways WisDOT analyzes pavement condition data along these corridors to determine where and when repairs are needed along the infrastructure and identify viable alternatives if needed. The department also assesses MPO recommendations published in each organization's long-range transportation plan when assessing priority needs.

WisDOT utilizes the Pavement Condition Index (PCI) methodology to rate pavement condition and monitor performance. This methodology relies on visual signs of pavement distress (e.g., cracks, ruts, or potholes) to determine the underlying mechanisms that are impacting the pavement structure and then rating it accordingly. PCI uses a numerical rating from 0 to 100, where 100 represents pavement in excellent condition. Pavement in fair condition is allowed to be rated down to the lowest minimum rating of 55.

Pavement quality is recorded under the MAPSS performance measure that WisDOT utilizes. According to the MAPSS performance scorecard for 2025, Wisconsin is meeting the goals of having 90 percent of the state highway backbone system and 80 percent of the non-backbone system rated fair or above. The MAPSS measure for Backbone State Highway Pavement Condition is available here, and the MAPSS measure for Non-Backbone State Highway Pavement Condition is available here.

Figure 5-5. Corridors 2030



Bridge Condition

WisDOT conducts regular inspections of all bridges within the state and stores the collected inspection data in the department's Bridge Management System. Bridge inspections are the key data used to determine when future bridge repair or reconstruction is needed.

WisDOT administers an inventory of more than 14,000 bridge structures that are maintained by the state and local governments. The department and its local government partners conduct bi-annual safety inspections and condition assessments of the bridges. This is in accordance with National Bridge Structures Standards (NBIS). Through these inspections, condition rating data is collected and reported for the deck, superstructure, and substructure of the bridges to WisDOT. An overall rating of good, fair, or poor is assigned each calendar year with the final bridge rating being based on the lowest rating the bridge received for any of its components.

The definitions for the bridge components are:

- **Deck:** the portion of the bridge that carries traffic.
- **Superstructure:** the portion of the bridge that supports the deck and connects one substructure element to another.
- **Substructure:** the portion of the bridge that supports the superstructure and distributes all bridge loads to below ground bridge footings.

The department goal is to have 95 percent of Wisconsin's over 5,000 state-owned or maintained bridges rated fair or above. Wisconsin continues to exceed the goal of 95 percent of state-owned bridges in fair condition or better over the past six years. For calendar year 2025, 98.5 percent of Wisconsin's state-owned bridges scored fair condition or better, with 1.5 percent receiving a poor condition rating.

Local Road Pavement and Bridge Structure Condition

With 104,187 centerline miles of county, town, and municipal roads and nearly 9,000 bridges, the local road network accounts for 89.9 percent of Wisconsin's public road mileage. A portion of the state's local roads and bridges are not designed to carry heavy loads, especially overweight trucks that may accelerate deterioration of those roadways and bridges. This may culminate in needing additional infrastructure investment. The balance of allowing oversize and overweight vehicles on Wisconsin's roadways is between increasing freight movement to meet economic development goals and minimizing impacts to roads, highways, and bridges.

WisDOT has a target to have 93 percent of all paved, and 85 percent of all unpaved, local pavements rated in fair condition or better. WisDOT's Local Road Pavement Condition Summary Statistics show that at least 90 percent of the local road pavement rated fair or above for the past six years and at least 83 percent of the unpaved local roads rated fair or above for the past six years. For calendar year 2025, 90 percent of paved and 84 percent of unpaved local roads were rated fair or above.

Given the first-mile/last-mile limitations that restrictions on local bridges can impose, WisDOT has a goal to have 90 percent of locally owned or maintained bridges rated in fair condition or better. This goal has been achieved for the past six years, with 91.2 percent of local bridges having been rated fair or better in calendar year 2025.

There is an opportunity to improve the number of posted bridges on secondary roads. In 2026, 470 local bridges were posted (load restricted) because of condition or obsolescence. In many cases, heavy vehicles (agricultural, mining, energy cargo or equipment, and timber related vehicles) are not designed to meet the local road and bridge requirements found in Wisconsin statutes.

However, Oversize-Overweight (OSOW) vehicles may be eligible for multi-trip or single-trip permits that allow them to traverse these roadways and bridges. The fees collected from these permits do not necessarily generate enough revenue to supplement the damage that these vehicles may be producing. Thus, it is important for state and local governments to have an asset management program to mitigate, reduce, or impede the deterioration of their respective roads and bridges.

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Maintenance and Preservation of Wisconsin's Transportation System

WisDOT uses appropriate maintenance and preservation strategies to protect, maintain, and operate the state's transportation system maximizing the state's investments. Ongoing routine maintenance refers to the daily activities that make it possible to maintain and preserve the system to provide a satisfactory level of service. Highway maintenance activities include:

- Pavement and bridge spot treatments
- Shoulder repair
- Repair and replacement of signs and pavement markings
- Repair and restoration of STH facilities and structures after crashes, natural disasters, and vandalism
- Maintenance of safety rest areas, waysides, and some park and ride lots
- Roadside vegetation control

While maintenance activities help address immediate system needs, eventually they are insufficient to address underlying infrastructure deterioration. When this happens rehabilitation strategies are used to appreciably extend the infrastructures useful life. WisDOT employs rehabilitation and maintenance strategies which include ongoing routine and preventative maintenance and long-term preservation to keep statewide transportation services available.

The return of pavement conditions to the condition they were before a winter storm (reaching bare or wet pavement) restores the capacity of the system to move traffic safely again. Clear roads also meet the needs of emergency travel and restore travel time reliability, which is important to the movement of freight. WisDOT has set a goal to achieve the targets for each state road category 70 percent of the time.

WisDOT has grouped the state roads into two state road maintenance categories. These categories are:

- Roads maintained 24 hours a day. These roads are to be cleared within four hours at the end of a storm.
- Roads maintained 18 hours a day. These roads are to be cleared within six hours at the end of a storm. 18-hour roads have lower traffic counts, are concentrated in peak travel time periods, and are not serviced between 10 p.m. and 4 a.m.

Each county provides WisDOT with a weekly report covering each storm event. The report includes when each storm event ends and when roads are restored to bare/wet pavement. Elapsed time is derived from the time between the storm event and the time it takes to get to wet/bare pavement. The performance measure is then drawn from the average percent for all storm events that bare/wet pavement conditions are met for 18-hour roads (within six hours) and on 24-hour roads (within four hours). The 24-hour category has exceeded its performance target for the last six years according to WisDOT's Winter Response Statistics. The 18-hour category has been close to meeting its target for the past six years, being less than 10 percent off its goals on any of the previous years.

5.3.1.2 Highway Utilization

WisDOT estimates that over 69 billion miles were driven on Wisconsin's roads in 2024. This section highlights the use of the STH system and local roads, and discusses routes that have been defined for freight users' benefit.

State Trunk Highway (STH) System

The STH system handled approximately 56 percent of the Vehicle Miles Traveled (VMT) in Wisconsin in 2024, while comprising just over 10 percent of the total roadway network.[4]

Local Roads

As a critical adjunct to the STH system, the local road system offers connections not only to local activity centers, but also to state and national facilities of importance such as ports and economic business centers. Local roads connect to the STH, airports, rail stations, and bus and ferry terminals. They are usually the first- and last-mile links in the state's farm-to-market commerce and offer critical links for area businesses and tourists. In 2024, Wisconsin's local roads handled approximately 44 percent of the VMT traveled in Wisconsin, while comprising approximately 90 percent of the total roadway network.[5]

Oversize/Overweight (OSOW) Routes

OSOW loads are trucks whose dimensions and/or weight exceed the legal limits. These loads require permits to legally travel on designated roadways.

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OSOW loads increase the stress on bridges and pavements and generate highway operational considerations specific to OSOW movements. Wisconsin has made significant strides in developing a transportation system that accommodates OSOW loads. In 2025, WisDOT issued approximately 86,000 permits (inclusive of single trip and multi-trip permits) that made use of this network.

In addition to the larger OSOW Truck Route network, WisDOT has also designated specific corridors for specific OSOW vehicles, such as those requiring high clearances and for those carrying wind tower equipment such as turbine blades.

In addition to the OSOW corridors, Wisconsin also has specified Long Truck corridors. These corridors are defined by Wisconsin Administrative Code Trans 276, which also clarifies other statutory provisions or federal rules affecting the weight, width, and length of vehicles and vehicle combinations.

Planning-level maps illustrating these corridor types are available here.

Highway Congestion

Concentrated utilization of highways and local roads at specific times and places can lead to congestion. WisDOT measures congestion level in terms of vehicle hours of delay. This measure estimates the additional time travelers need to reach their destinations when slower traffic flow is encountered as opposed to free flowing traffic conditions. This calculation reflects and adheres to federally established traffic formulas, and is discussed further in Section 5.3.1.4.

Roadway Freight Bottlenecks

FHWA defines a bottleneck as any highway segment identified by a State DOT to have constraints that significantly affect freight mobility and reliability. Roadway freight bottlenecks serve as a key metric for highway utilization. This concept is referenced consistently and discussed in greater detail in Section 5.3.1.4 and Section 7.1.3.

5.3.1.3 Safety

Roadway Safety

WisDOT's performance metrics measure traffic fatalities, serious traffic injuries, traffic crashes, and safety belt use on the state's roads. The department's goal is to reduce the number of traffic fatalities by two percent from the previous five-year rolling average as well as to reduce the number of serious injuries from traffic crashes by two percent from the previous five-year rolling average. According to WisDOT's Traffic Fatalities Statistics, Wisconsin had 537 fatalities in 2025, 39 less than in 2024, resulting in an 8.1 percent reduction from the previous five-year rolling average. Wisconsin also had 3,142 serious injuries in 2025, 209 less than in 2024, resulting in a 4.6 percent reduction from the previous five-year rolling average. In 2025, there were approximately 232 serious injuries or fatalities involving large trucks in Wisconsin compared to 246 in 2024. Despite experiencing record levels in Vehicle Miles Traveled (VMT) in 2025, Wisconsin recorded an overall decrease in fatalities and serious injuries.[6]

The Division of State Patrol (DSP) uses a high-level community mapping program designed by the University of Wisconsin Traffic Operations and Safety Laboratory to identify causal factors and to aid in crash prevention. The mapping program, called Community Maps,[7] provides statewide maps and data for all police reported motor vehicle crashes in the state. The application uses predictive analytics to pinpoint locations for resource allocation based on specified safety events.

The agency's Commercial Vehicle Safety Plan,[8] which is submitted annually to the Federal Motor Carrier Safety Administration, stresses the importance of high visibility traffic enforcement with respect to all motorists, including drivers of light vehicles who operate in an unsafe manner around commercial traffic.

Local Road Safety

As WisDOT continues its efforts to improve the safety of the state's roadway network, including Wisconsin's local roads and bridges, WisDOT coordinates with local governments to manage available safety funding and to program safety improvements. In addition, WisDOT coordinates with local governments on data sharing, providing technical assistance, and addressing safety issues.

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Safe Systems Approach to Freight Transportation Safety

The U.S. Department of Transportation's Safe System Approach is a holistic framework that emphasizes building and reinforcing multiple layers of protection to both prevent crashes and minimize harm when they occur. Founded on the principles that humans make mistakes, have limited ability to tolerate crash impacts, but those mistakes should never lead to death, the approach encompasses five interconnected elements: **Safer People, Safer Roads, Safer Vehicles, Safer Speeds, and Post-Crash Care**.

Aligning with the Mission

WisDOT has embraced the Safe System Approach as central to its mission: "to provide leadership in the development and operation of a safe and efficient transportation system."[9] With a transportation network achieving zero deaths as the ultimate goal, WisDOT recognizes this as a shared responsibility requiring collaborative action across all divisions and stakeholders. For Wisconsin's freight industry, this commitment means ensuring that commercial vehicles, freight corridors, and the professionals who move goods across our state can operate safely and efficiently.

Strategic Framework

WisDOT's Strategic Highway Safety Plan (SHSP) provides the framework for incorporating the Safe System Approach throughout 11 emphasis areas dedicated to improving transportation safety in Wisconsin. This plan aligns directly with the five Safe System objective areas that are shown in Figure 5-6, ensuring that every safety initiative, including those affecting freight operations, contributes to the comprehensive protection of all road users.

Comprehensive Safety Implementation for Freight Operations

WisDOT employs multiple strategies across all Safe System elements with specific attention to freight transportation.

Safer People

WisDOT implements extensive education and outreach campaigns addressing critical behaviors that affect freight operations, including impaired driving, distracted driving, speeding, and reckless driving. Educational materials inform both commercial drivers and the motoring public about safely sharing the road with large trucks. Work zone safety initiatives are particularly crucial for freight operations, as commercial vehicles frequently navigate construction zones where reduced speeds and heightened awareness are essential.

Safer Roads

WisDOT engineers analyze and develop highway designs with freight movement in mind, implementing innovative interchange and intersection designs that accommodate large vehicles, high friction surface treatments on bridges and curves where trucks are particularly vulnerable, and numerous safety engineering countermeasures. The department carefully considers truck volumes, highway speeds, and surrounding environments to create safe, sustainable solutions that support efficient freight movement while protecting all transportation modes.

Safer Speeds are promoted through context-appropriate roadway design combined with education campaigns emphasizing that speed limits reflect ideal conditions. This is particularly important for freight operations, as commercial vehicles require greater stopping distances and are affected by adverse conditions, requiring drivers to adjust speeds for weather, traffic, roadwork, and emergencies.

Safer Vehicles are a critical focus for freight safety. WisDOT's Safety and Weight Enforcement Facilities play a vital role, where State Patrol inspectors ensure commercial trucks comply with federal and state laws and regulations. These facilities check vehicle safety systems, weight compliance, and driver qualifications, helping to keep unsafe commercial vehicles off Wisconsin's roads and protecting both freight operators and other road users.

Post-Crash Care is enhanced through robust traffic incident management practices that are especially important when commercial vehicles are involved, as freight crashes often require specialized response and can result in extended road closures. The Community Maps system helps identify crash patterns involving commercial vehicles to prevent future incidents and improve freight corridor safety.

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Data-Driven Decision Making for Freight Safety

WisDOT leverages data and technology extensively to improve freight safety, tracking key metrics through its MAPSS Performance Metrics system: traffic fatalities, serious traffic injuries, traffic crashes, and seat belt use. The Bureau of Transportation Safety maintains comprehensive crash records, providing dynamic, up-to-date data that includes commercial vehicle crashes for local governments, freight stakeholders, and safety planners. Predictive analysis and modeling enable the department to identify high-risk locations for freight operations, increase enforcement visibility along major freight corridors, and inform infrastructure investments that improve safety for commercial vehicles.

Enforcement and Industry Partnership

Nearly 400 State Patrol troopers and inspectors work daily to encourage safe travel, with specialized focus on commercial vehicle safety through Safety and Weight Enforcement Facilities strategically located along Wisconsin's freight corridors. The department collaborates with freight carriers, industry associations, and communities to create a comprehensive safety culture that recognizes the vital role commercial transportation plays in Wisconsin's economy while prioritizing the safety of professional drivers and all road users.

Through this multi-faceted approach, WisDOT demonstrates its commitment to the Safe System philosophy that safety is everyone's responsibility and that achieving zero deaths requires sustained, coordinated effort across all aspects of the transportation system, including the safe and efficient movement of freight that supports Wisconsin's economic vitality.

Figure 5-6. Safe System Approach Objective Areas



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Incident Response

WisDOT monitors incidents on the STH network in close coordination with state agency partners and staff at the Traffic Management Center, which is discussed later in this section. Regardless of incident severity, restoring the roadway to full operation as quickly as possible helps reduce secondary incidents, minimizes delay for people and freight, and decreases the associated economic impact of traffic delays.

WisDOT's goal is to clear 90 percent of all intermediate incidents in less than two hours and to clear 80 percent of all major incidents in less than four hours. In 2025, the department continued to meet its major incident target with an 87.6 percent clearance rate and surpassed its intermediate incident target with a 94.1 percent clearance rate per WisDOT's Incident Response Statistics.[10] Statewide average clearance time for 2025 was 71 minutes.

Highway Safety Improvement Program

The Highway Safety Improvement Program (HSIP) funds highway and local road safety projects at sites that have experienced a high crash history. An emphasis is placed on low-cost options that can be implemented quickly. However, HSIP funds are often used to help fund larger and more costly projects. Projects typically include intersection safety improvements, improving site distance issues, eliminating roadside obstacles, and installing guardrails and barriers. FHWA published HSIP and Safety Performance Management Measures rules in 2016. WisDOT complies with the federal Performance Management Measures rule by submitting annual targets for the five Safety Performance Management Measures to FHWA.

Large Truck-Involved Crashes

Large Truck-Involved crash data was extracted from AASHTOWare Safety for the analysis period 2020-2024. Figure 5-7 shows the cumulative 5-year totals of large truck-involved crashes by severity type, including fatal (K), suspected serious injury (A), suspected minor injury (B), possible injury (C), and property damage only (PDO). The state-owned roadway network had 18,257 crashes (55 percent of state total), 3,752 injury crashes (67 percent of state total), and 222 fatal crashes (74 percent of state total), which were related to truck movements.

Statewide, across state and local roads, the crash data found 26 percent of freight related crashes occur at intersections. Approximately 13 percent occurred in parking lots and private property, locations typically associated with frequent truck maneuvers, such as distribution facilities, warehouses, and truck stops. The remaining 61 percent of crashes were segmental crashes, primarily road departures and sideswipes.

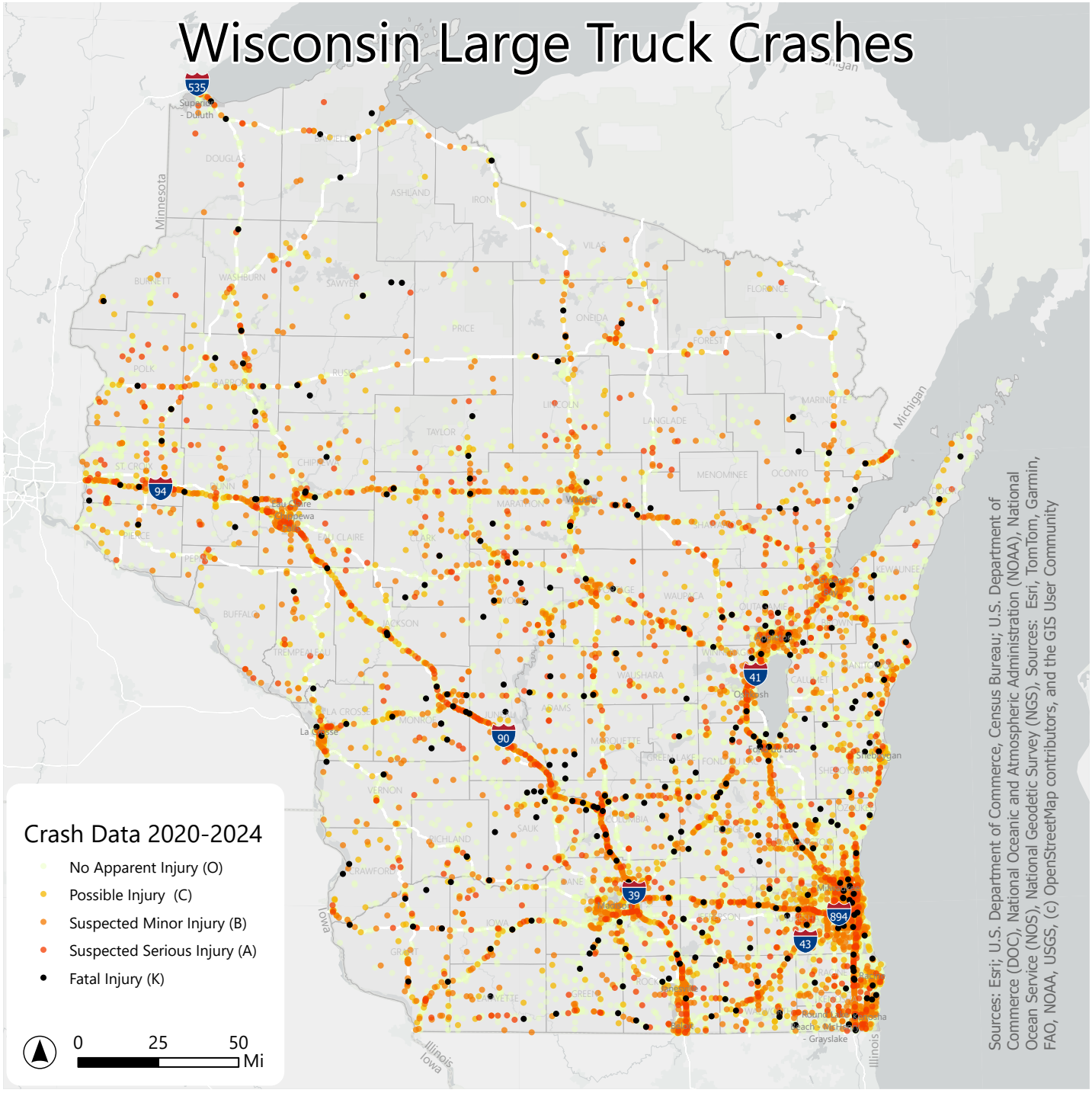
Approximately 5 percent of crashes involved a work zone with the majority occurring on interstate projects. Of the work zone related incidents, sideswipes and rear end collisions accounted for over 50 percent of incidents. Reduced lane widths, lane staging shifts, and queuing traffic contributed to these crashes.

During the 5-year analysis window, 330 bridge overhead structure hits were reported with 70 percent of them occurring on non-state roadways. In Wisconsin the maximum legal height for a vehicle and its load is 13 feet 6 inches; vehicles exceeding the legal height limit must obtain an Oversize/ Overweight Permit. Single-trip OSOW permit holders are strictly routed to avoid low-clearance bridges.

Figure 5-8 and Figure 5-9 highlight the statewide analysis of large truck-involved crashes utilized to identify the top 25 segments and intersections across Wisconsin's local and state roadway networks that experience the highest frequency of freight-related crashes.

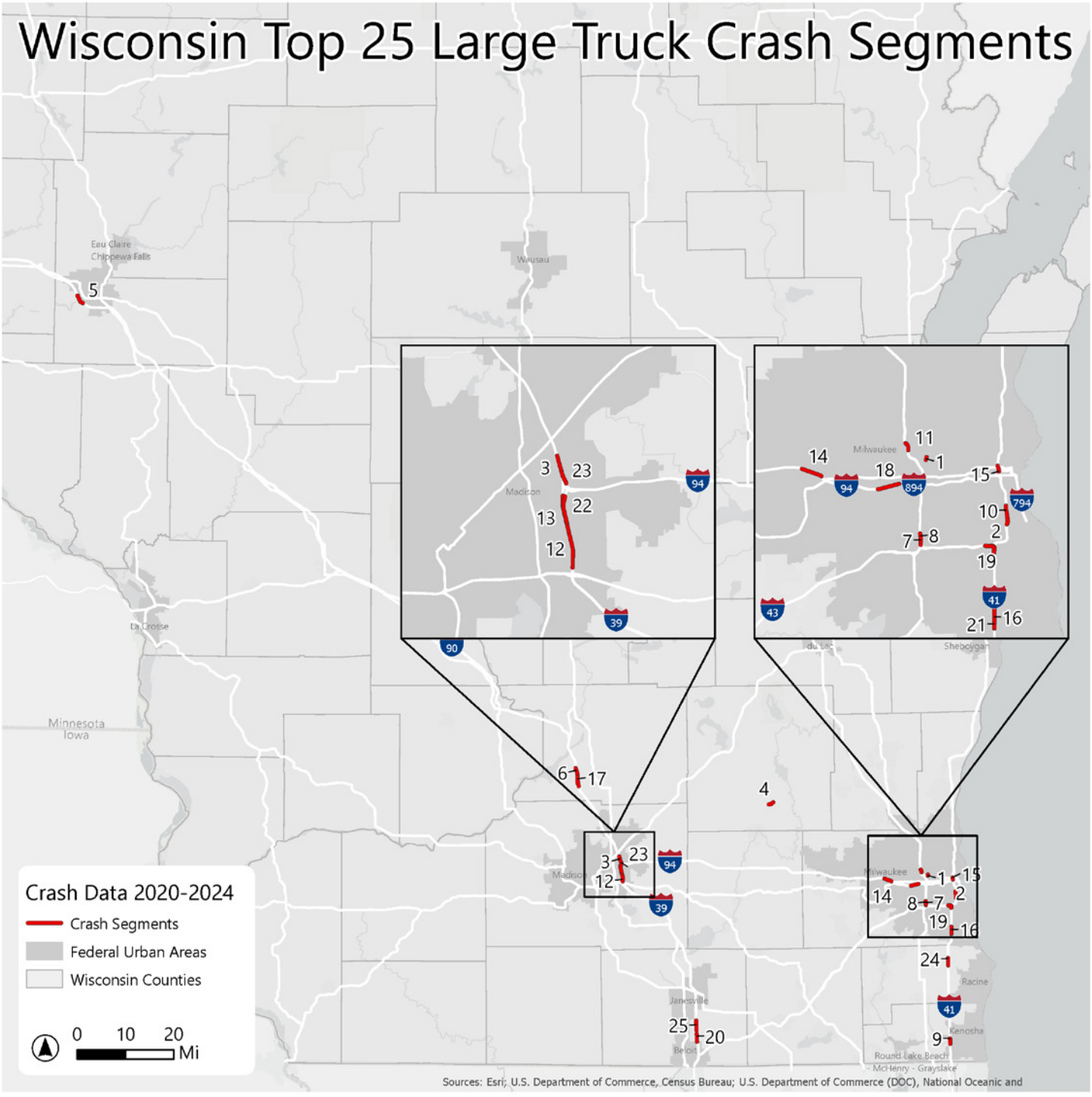
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Figure 5-7. Wisconsin Large Truck Crashes



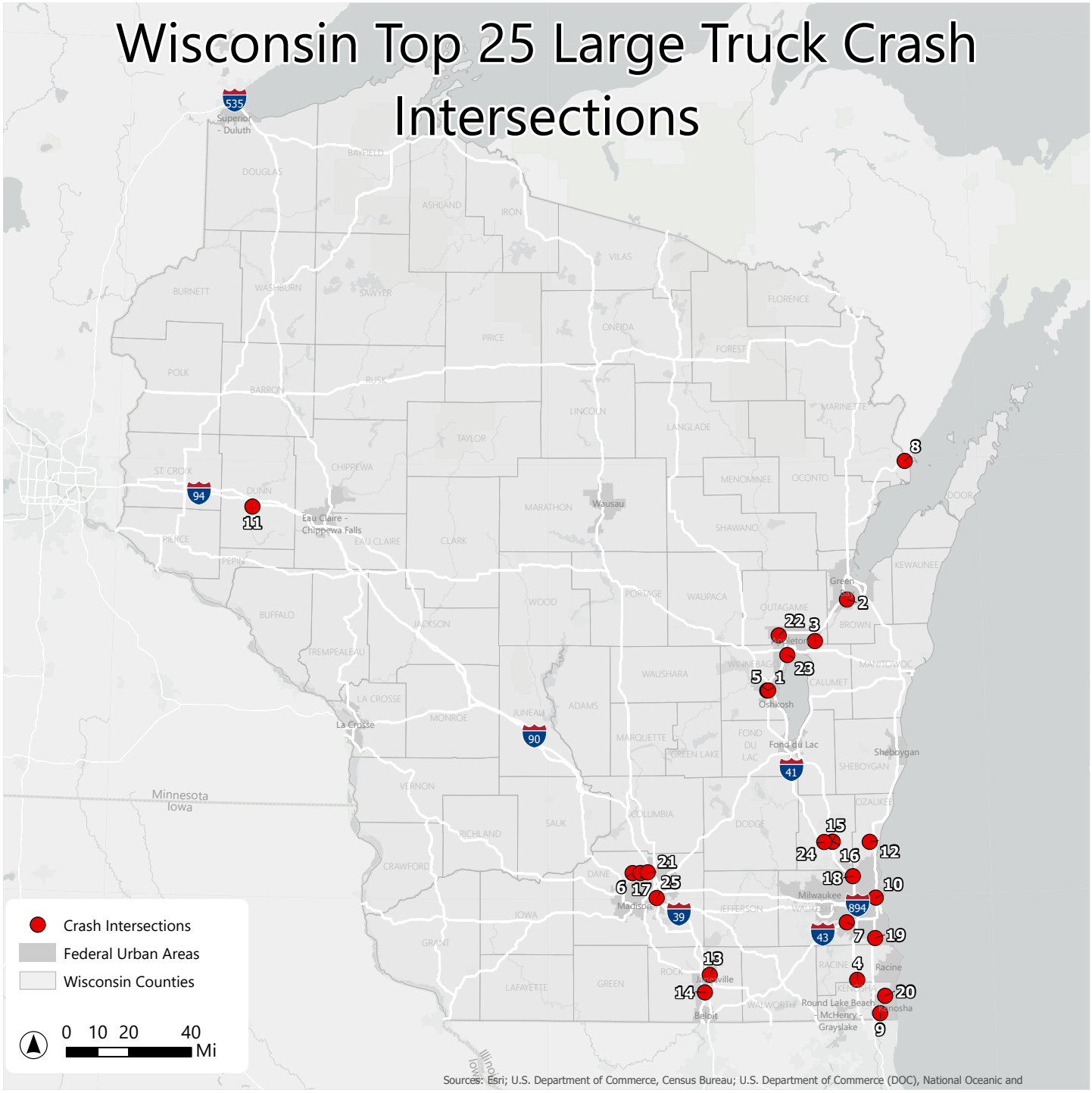
Source: AASHTOWare Safety

Figure 5-8. Wisconsin Top 25 Large Truck Crash Segments



Source: AASHTOWare Safety

Figure 5-9. Wisconsin Top 25 Large Truck Crashes Intersections



Source: AASHTOWare Safety

Segments

Low vertical clearance bridges are responsible for the local roadway segmental crashes shown in Table 5-2 and Figure 5-8. Older overhead railroad structures with insufficient clearances as low as 11 feet 6 inches create conflicts for commercial truck traffic. These restricted clearances increase the risk of bridge strikes and property damage when truck drivers are unaware of the height limitations or fail to divert to an alternate route.

Failure to negotiate curves and travel too fast for conditions during adverse weather can lead to shifting loads and loss of traction. Heavy rainfall and standing water increase the chances of hydroplaning, jackknife events, and overturn crashes involving heavy trucks.

Review of the remaining segments identified interstate routes carrying increased presence of heavy vehicles with recurring traffic congestion, lane change maneuvers, and ramp merging conflicts to be common factors. High traffic volumes and queue formation increase the likelihood of rear end crashes, while truck blind spots and frequent lane changes contribute to sideswipe collisions. Adverse winter weather conditions such as snow and ice accumulation, further increase crash risk by reducing visibility and pavement friction. Driver inattention and fatigue also remain contributing factors, particularly in crashes involving failure to maintain the designated lane resulting in roadway departures.

Intersections

Multi-lane roundabouts primarily experience same direction sideswipe crashes involving trucks during merging and lane transition maneuvers. These crashes are commonly associated with vehicles failing to yield to circulating traffic, improper lane selection, and the wider turning paths and lane encroachment required for heavy vehicle operations.

Signalized intersections with constrained geometrics, tight turning radii, or insufficient accommodation for trailer off tracking experience higher occurrences of signal knockdowns and turning related conflicts. Skewed approaches with limited sight distance also contributed to angle crashes at several locations.

Review of the remaining intersections found adequate geometrics for truck operations. Despite no clear geometric deficiencies, the crashes observed are consistent with common intersection conflicts and may primarily reflect increased presence of truck activity associated with adjacent industrial land uses. The increased exposure of heavy vehicles likely contributes to the elevated frequency of truck involved crashes at the intersections shown in Table 5-3 and Figure 5-9.

Traffic Management Center

The Traffic Management Center (TMC) is integral to safe and efficient travel throughout Wisconsin and the Great Lakes Region. The TMC plays an important role in monitoring and managing traffic-related operations along the state's highways. The TMC provides dynamic, real-time data to law enforcement, first responders and the general public, serving as the main source of information on current road conditions, traffic incidents, construction closures and alternate routes. The Milwaukee-based TMC is staffed on a 24/7 basis throughout the year. The TMC utilizes closed-circuit television (CCTV) cameras, dynamic message signs (DMS), the state's 511 website, news media partnerships, social media and other tools to help move people and freight in a reliable, predictable and safe manner. The TMC functions as a traveler-focused, performance-driven network of partnerships and technologies used to monitor, operate and maintain traffic management and traveler information systems and corresponding field devices on Wisconsin's roadways.

Safety and Weight Enforcement Facilities (SWEFs)

WisDOT's State Patrol inspectors ensure that commercial carriers operate within statutory or permitted size and weight limitations while operating in Wisconsin. They inspect carriers to ensure they have proper registration, as well as insurance and authority credentials. Enforcement activities occur at SWEFs as well as through mobile enforcement using portable scales. Wisconsin has 13 SWEFs as listed here.

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Table 5-2. Top 25 Large Truck Segment Crashes by Crash Count

RANK	STREET NAME	CRASHES	MANNER OF COLLISION	COUNTY	SEGMENT LENGTH	FREEWAY/NON-FREEWAY
1	Swan Blvd	34	Bridge Hit	Milwaukee	0.23	Non-Freeway
2	IH 41 N	30	Failure to Negotiate Curve	Milwaukee	0.46	Freeway
3	IH 39 N	27	Sideswipe Same Direction	Dane	0.80	Freeway
4	CTH E	27	Bridge Hit	Dodge	1.05	Non-Freeway
5	IH 94 W	25	Road Departures	Eau Claire	2.00	Freeway
6	IH 39 N	25	Road Departures	Columbia	1.91	Freeway
7	IH 41 S	23	Sideswipe Same Direction	Milwaukee	0.60	Freeway
8	IH 41 N	22	Sideswipe Same Direction	Milwaukee	0.60	Freeway
9	IH 41 N	22	Sideswipe Same Direction	Kenosha	1.11	Freeway
10	IH 43 S	22	Sideswipe Same Direction	Milwaukee	1.36	Freeway
11	IH 41 N	22	Sideswipe Same Direction	Milwaukee	0.57	Freeway
12	IH 39 S	22	Sideswipe Same Direction	Dane	1.68	Freeway
13	IH 39 S	21	Sideswipe Same Direction	Dane	1.68	Freeway
14	IH 94 W	20	Sideswipe Same Direction	Waukesha	1.51	Freeway
15	IH 43 S	20	Sideswipe Same Direction	Milwaukee	0.43	Freeway
16	IH 41 S	20	Sideswipe Same Direction	Milwaukee	1.53	Freeway
17	IH 39 N	19	Road Departures	Columbia	1.91	Freeway
18	IH 94 E	19	Sideswipe Same Direction	Waukesha	1.59	Freeway
19	IH 41 S	18	Failure to Negotiate Curve	Milwaukee	1.03	Freeway
20	IH 39 N	18	Front to Rear	Rock	1.61	Freeway
21	IH 41 N	18	Sideswipe Same Direction	Milwaukee	1.47	Freeway
22	IH 39 N	18	Sideswipe Same Direction	Dane	1.25	Freeway
23	IH 39 N	18	Sideswipe Same Direction	Dane	0.55	Freeway
24	IH 41 N	17	Sideswipe Same Direction	Racine	1.52	Freeway
25	IH 39 S	17	Front to Rear	Rock	2.00	Freeway

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Table 5-3. Top 25 Large Truck Intersection Crashes by Crash Count

RANK	INTERSECTION NAME	CRASHES	MANNER OF COLLISION	COUNTY	CONTROL	INTERSECTION TYPE
1	STH 21 & Washburn St & Brooks Ln	26	Sideswipe Same Direction	Winnebago	Yield Sign	Multi-lane Roundabout
2	STH 32 & STH 57	21	Sideswipe Same Direction	Brown	Yield Sign	Multi-lane Roundabout
3	STH 55 & CTH CE	18	Sideswipe Same Direction	Outagamie	Yield Sign	Multi-lane Roundabout
4	U.S. 45 & STH 11	18	Struck Fixed Object	Racine	Signalized	Cross-Intersection (four legs)
5	IH 41 NB Ramps & STH 21	14	Sideswipe Same Direction	Winnebago	Yield Sign	Multi-lane Roundabout
6	STH 19 & STH 113	13	Sideswipe Same Direction	Dane	Yield Sign	Multi-lane Roundabout
7	IH 43 NB Off Ramp & CTH O	13	Sideswipe Same Direction	Waukesha	Yield Sign	Multi-lane Roundabout
8	U.S. 41 & CTH T	11	Front to Side Angle	Marinette	Signalized	Cross-Intersection (four legs)
9	STH 165 & CTH H	11	Front to Side Angle	Kenosha	Signalized	Cross-Intersection (four legs)
10	IH 43 SB On Ramp & North Ave & N 8th St	11	Sideswipe Same Direction	Milwaukee	Signalized	Five or more legs and not circular
11	U.S. 12 & STH 25 & 4th Ave W	11	Struck Fixed Object	Dunn	Signalized	Cross-Intersection (four legs)
12	STH 60 & CTH O & 12th Ave	11	Struck Fixed Object	Ozaukee	Signalized	Cross-Intersection (four legs)
13	U.S. 14 & Deerfield Dr	11	Struck Fixed Object	Rock	Signalized	Cross-Intersection (four legs)
14	STH 11 & CTH G	10	Front to Side Angle	Rock	Signalized	Cross-Intersection (four legs)
15	U.S. 45 SB Ramps & STH 60	10	Sideswipe Same Direction	Washington	Yield Sign	Multi-lane Roundabout
16	STH 60 & Tillie Lake Rd & Cedar Pkwy	10	Sideswipe Same Direction	Washington	Yield Sign	Multi-lane Roundabout
17	STH 19 & STH 113 & CTH I	10	Sideswipe Same Direction	Dane	Yield Sign	Multi-lane Roundabout
18	STH 145 & Leon Rd & W Bradley Rd	9	Front to Side Angle	Milwaukee	Signalized	Cross-Intersection (four legs)
19	STH 100 & CTH V	9	Front to Side Angle	Milwaukee	Signalized	Cross-Intersection (four legs)
20	STH 31 & CTH S	9	Front to Rear	Kenosha	Signalized	Cross-Intersection (four legs)
21	STH 19 & River Road	9	Sideswipe Same Direction	Dane	Yield Sign	Multi-lane Roundabout
22	STH 15 & CTH CB	9	Sideswipe Same Direction	Outagamie	Yield Sign	Multi-lane Roundabout
23	STH 114 & Garfield Ave	9	Struck Fixed Object	Winnebago	Signalized	T-Intersection
24	STH 60 & CTH C	9	Sideswipe Same Direction	Washington	Yield Sign	Multi-lane Roundabout
25	U.S. 51 & CTH AB	8	Front to Side Angle	Dane	Signalized	Cross-Intersection (four legs)

Truck Parking

As trucking is the primary method of moving freight to, from, and within Wisconsin, the availability of truck parking facilities is critical. This is due to those facilities' role in freight operations, safety, and security. Truck parking facilities provide respite for long-haul truck drivers and a safe parking area during inclement weather conditions. The facilities are also frequently used for staging or other logistical purposes. While the need to meet federal Hours-Of-Service regulations influences the demand for parking, inadequate parking can also lead to other challenges, including productivity loss, occurrences of illegal or undesignated parking, and safety issues.

Of note, parking for oversize-overweight (OSOW) vehicles continues to be a challenge at major border crossing points on established freight corridors, including near Hudson, La Crosse, Monroe, Beloit, Kenosha, and in Grant County near Dubuque. Specialized OSOW freight loads and vehicle configurations require specific route planning due to their size and travel requirements, including escorts and road construction limitations.

The demand for truck parking continues to be a challenge for both the public and private sector, which are both necessary to address truck parking needs in the state. In Wisconsin, truck parking is available at Safety Rest Areas (SRAs) and Safety and Weight Enforcement Facilities (SWEFs), which are both state-owned and maintained facilities, and at private facilities such as gas stations and truck stops. In 2025, a total of 260 truck parking facilities were identified within Wisconsin, with over 8,100 stalls. Of these, 43 are public facilities, accounting for nearly 1,200 stalls.

WisDOT continues to operate its Truck Parking Information Management System (TPIMS) throughout the state. As of summer 2026, the system monitors truck parking availability at 665 stalls at 14 SRAs. As committed to in the previous Wisconsin State Freight Plan, WisDOT explored the potential expansion of our TPIMS network, and the decision was made to add TPIMS technology to the Sparta, Maribel, and Denmark SRAs as part of projects that concluded between late 2025 and summer 2026. An additional SRA may be added to WisDOT's TPIMS network in 2027.

Truck Parking Assessment

In response to the ongoing need for information to inform investment decisions, in 2025-2026 WisDOT conducted its first-ever statewide Truck Parking Study. The full Study is posted here.

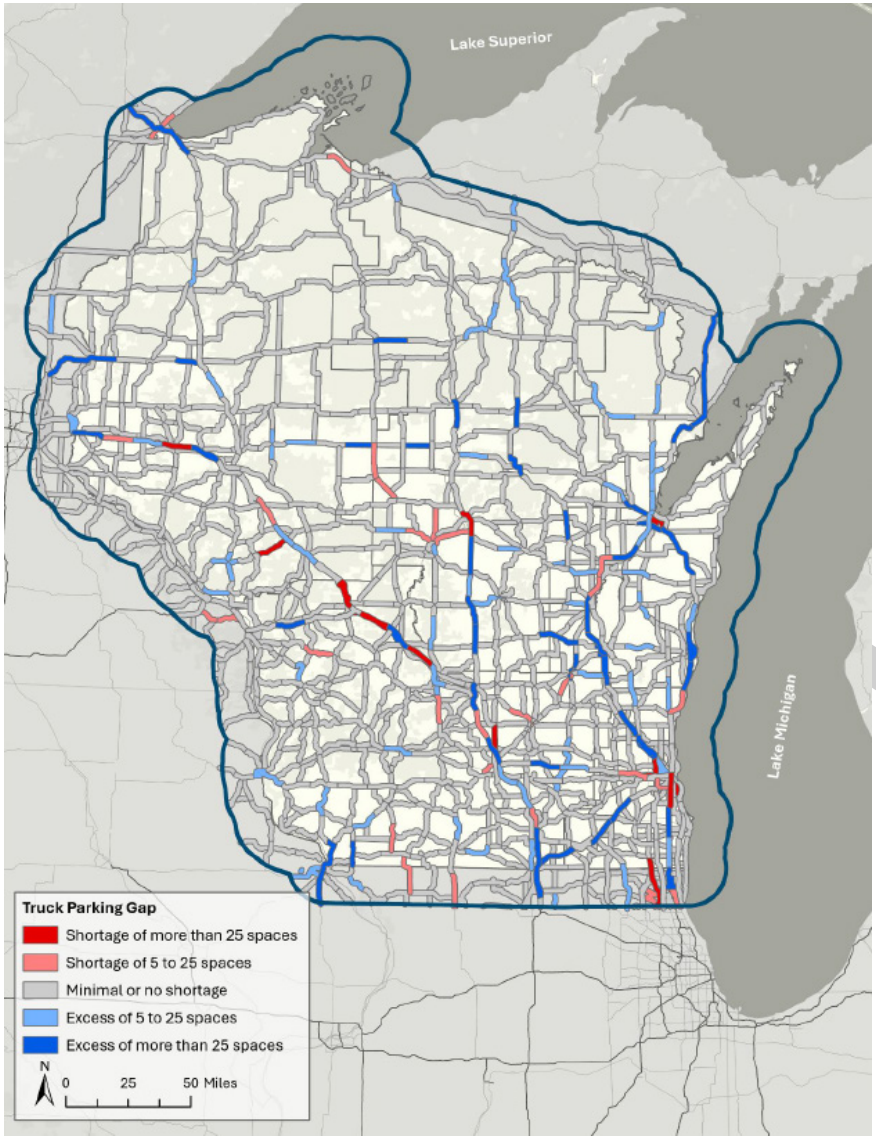
The Study relied heavily on a location-based "big data" set that provided GPS coordinates for a sample of heavy-duty trucks, including details on locations, stop durations, travel times, and directions for stops in Wisconsin. The raw data from that set was used in conjunction with data from Wisconsin's TPIMS to create expansion factors to scale the level of observations, providing an estimate for the entire population of trucks on Wisconsin's state highways, U.S. highways, and interstates in calendar year 2024. Beyond the "big data" aspect of the Study, WisDOT conducted stakeholder outreach, targeting truck drivers, trucking companies, and truck stop owner/operators with role-specific surveys.



Maribel Safety Rest Area 51 – Manitowoc County, WI

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Figure 5-10. Truck Parking Gap Analysis by Segment, 1:00am (2024)



Source: LOCUS 2024

While the Study found that the statewide total formal truck parking capacity exceeds peak-hour (1:00am) demand, and that many parts of the state have adequate parking in that timeframe, there continues to be regional and localized shortages. This includes along corridors near Milwaukee and on parts of the I-94 corridor between Madison and the Minnesota border. Locations in the vicinity of the Fox Cities and Stevens Point also stand out. Figure 5-10 depicts a gap analysis reflecting where there are shortages and surpluses during the 1:00am timeframe.

WisDOT continues to invest heavily in truck parking improvements. Between fall 2022 and summer 2026, capacity was added at the Hudson SWEF (11 stalls added, including 1 OSOW stall), the Sparta SRA (54 stalls added), the Maribel SRA (36 stalls added), and the Denmark SRA (36 stalls added), while non-capacity related improvements were made to the Menomonie SWEF. Additional capacity is being added at the Wrightstown SWEF (29 additional stalls, including 1 OSOW stall), which will open to truck drivers in 2027. The Sparta project and the Denmark and Maribel projects benefited from federal INFRA grants, with WisDOT having been awarded $8M for Sparta and $12.5M for Denmark and Maribel.

With the conclusion of the Truck Parking Study, WisDOT will use the results to inform future grant applications and investment decisions, including facility improvements currently under design for the Lomira and Theresa SRAs along the I-41 corridor. In conjunction with other efforts, these activities will illustrate WisDOT's continued policy focus on supporting an increase in the availability of truck parking and related infrastructure at state-owned facilities.

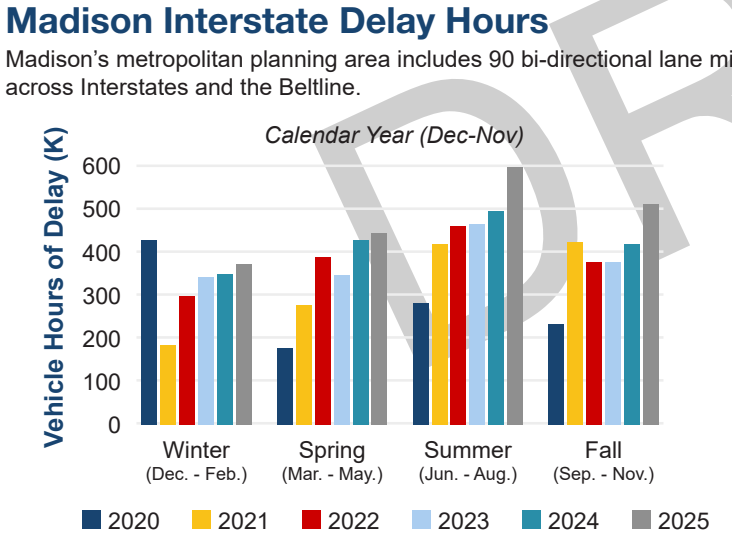
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5.3.1.4 Performance

Highway Congestion

WisDOT measures congestion levels in terms of vehicle hours of delay. This measure estimates the additional time travelers need to reach their destinations when traffic is moving slower than under free flow conditions. The calculation of this measure reflects and adheres to federally established tracking formulas. WisDOT evaluates this measure for individual corridors as well as for metropolitan areas in total Figure 5-11. WisDOT's vision for optimizing traffic movement on the STH system is to improve the system to reduce congestion, improve safety, and support economic growth in Wisconsin. To achieve this vision, WisDOT uses tools and strategies to improve capacity on existing facilities and construct new facilities to increase capacity, where appropriate and warranted.

Figure 5-11. Vehicle Hours of Delay on Insterstates in Madison



In this metropolitan planning area, the speed was above 56 MPH for half of the time during the daytime peak hours of 6 AM–8 PM in the winter quarter of 2025.

Roadway Freight Bottlenecks

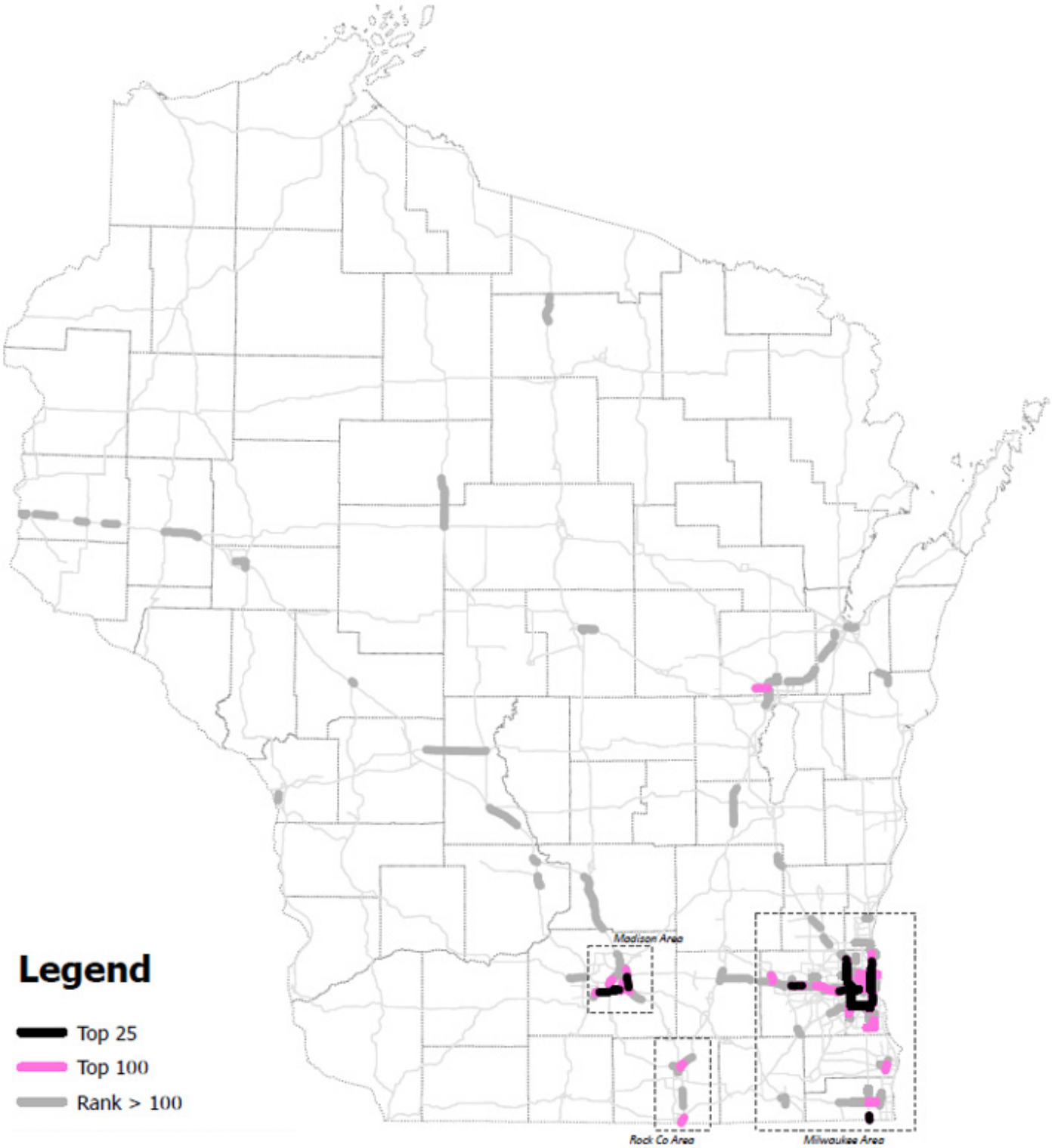
Federal Highway Administration (FHWA) defines a truck freight bottleneck as, "any highway segment identified by a State DOT to have constraints that significantly affect freight mobility and reliability."[11] Table 5-4 includes a list of identified interstate and non-interstate National Highway System (NHS) bottlenecks ranked through an iterative process that involved utilizing the National Performance Management Research Data Set (NPMRDS) pre-defined segment data that looks at speed, delay, and truck travel time reliability. Annual historical data between 2021-2025 was averaged over the 5-year analysis period that emphasized recurring bottlenecks year-over-year. This helped to smooth out noise in the speed data by capturing long-term trends of the impacts associated with work zones, weather, incidents, and other non-recurring sources of delay.

By considering multiple years of data, work zone bottlenecks were more accurately represented as transitory with segments restoring to typical travel times once construction was completed. This helped keep known short-term bottlenecks out of the top candidate list and promoted segments that may need future improvements.

After initial rankings were established, additional scoring criteria prioritized segments including Freight Factor Scores (as discussed in Chapter 8), Annual Average Daily Truck Traffic (AADTT), and truck travel time reliability. In order to reduce redundancy in the top ranked list, this stage of the methodology also grouped adjacent highly ranked segments into larger corridors. Incorporating this iterative grouping process helped consolidate directly adjacent segments that had similar scores resulting in more meaningful outputs. Figure 5-12 identifies the locations of the top freight bottlenecks in Wisconsin. To read more in regard to truck freight bottlenecks, including the management of bottleneck congestion, you can find further information in Section 7.1.3.

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Figure 5-12. Top 100 Large Truck Bottlenecks



Source: WisDOT Bureau of State Highway Programs

Table 5-4. Top 25 Large Truck Bottlenecks

RANK	COUNTY	ROUTE	DIRECTION	LOCATION	LENGTH (MI)	RELIABILITY (95TH/50TH)	TRUCK TRAFFIC (AADTT)	FREIGHT FACTOR SCORE
1	Milwaukee	I-41/43/894	Eastbound	I-43 (Hale Interchange) - 76th St	1.26	1.88	17,900	94
2	Milwaukee	I-41/894	Southbound	Oklahoma Ave - I-43 (Hale Interchange)	1.47	1.65	19,400	94
3	Milwaukee	I-41	Southbound	WIS 175 - Burleigh Rd	4.09	2.47	17,000	91
4	Milwaukee	I-41/43/894	Westbound	WIS 241 (27th St) - 76th St	3.11	1.73	15,400	89
5	Milwaukee	I-41	Northbound	Exit 316 & 317 Mitchell Interchange	0.86	1.59	13,400	94
6	Milwaukee	I-41/43/894	Eastbound	76th St - WIS 36 (Loomis Rd)	2.48	1.5	15,600	87
7	Dane	I-39/I-90	Northbound	I-94/Exit 133	3.06	1.35	17,400	96
8	Milwaukee	I-43	Northbound	U.S. 18 (Highland Ave) - WIS 190 (Capitol Dr)	2.89	2.93	10,800	81
9	Milwaukee	I-41/894	Southbound	WIS 59 (Greenfield Ave) - Lincoln Ave	0.93	1.58	18,000	86
10	Milwaukee	I-41/894	Southbound	Lincoln Ave - Oklahoma Ave	0.77	1.37	16,600	87
11	Milwaukee	I-41/I-894	Northbound	Oklahoma Ave/Exit 2	0.56	1.36	20,400	95
12	Milwaukee	I-43	Southbound	WIS 190 (Capitol Dr) - Brown St	2.71	2.44	12,000	81
13	Milwaukee	I-41	Southbound	Good Hope Rd	0.42	5.29	12,400	92
14	Milwaukee	I-41	Northbound	U.S. 18 (Bluemound Rd) - WIS 190 (Capitol Dr)	3.96	2.57	15,700	84
15	Kenosha	I-94/I-41	Northbound	CR-MI/122nd St	1.19	1.35	18,900	96
16	Milwaukee	I-43	Southbound	Good Hope Rd - WIS 190 (Capitol Dr)	3.66	1.94	8,700	81
17	Dane	U.S. 12/14/18/151	Westbound	U.S. 14 (Park St) - Seminole Hwy	2.56	1.71	9,700	83
18	Dane	U.S. 12/18	Eastbound	Broadway - Monona Dr	1.59	1.41	8,300	84
19	Milwaukee	I-43	Southbound	Brown St - Marquette Interchange	1.97	2.47	6,400	80
20	Milwaukee	I-43/I-94	Southbound	Holt Ave/Exit 314	1.16	1.34	11,100	80
21	Milwaukee	I-43/I-94	Northbound	Howard Ave - Lincoln Ave	2	1.42	10,800	82
22	Milwaukee	I-94	Westbound	WIS 83/Exit 287	3.02	1.23	8,600	85
23	Milwaukee	I-94	Eastbound	92nd St - 64th St (Zoo to Stadium Interchange)	1.64	3.56	7,500	73
24	Milwaukee	I-94	Westbound	Moorland Rd/Exit 301B	2.33	1.49	9,800	79
25	Milwaukee	I-41	Eastbound	I-43/U.S. 45/Exit 4	0.4	1.81	12,700	78

Source: Bureau of State Highway Programs

Travel Time Reliability (Planning Time Index)

Travel time reliability measures the variability of congestion. A congested roadway may still be highly reliable if it presents predictable levels of congestion throughout the day. If a roadway is sometimes congested, and sometime free flowing, freight carriers may need to plan for additional travel time. The Planning Time Index (PTI) captures this experience and is calculated as the 95th percentile travel speed divided by the free flow travel speed. A wide variation in the recorded travel time indicates low reliability and a high planning time index. This measure is represented by direction and by weekday, non-holiday peak periods. Travel time information for this measure was acquired from a FHWA-sponsored national data set. The current goal is to improve on reliability from the previous year.

The index statistics are divided by the whole state versus 32 select counties with interstate corridors or heavy populated metropolitan areas. For 2025, the statewide index has met its target as the index is holding at the same level as 2024. Wisconsin has set a target of 1.25 or below for the state. While AM and total day levels are within the target, 1.20 and 1.21 respectively, the PM index is slightly above the expected target range at 1.27.

In addition to the PTI, WisDOT also monitors Truck Travel Time Reliability Index (TTTRI) in compliance with the FHWA's Final Rule on National Performance Management Measures (PM3). WisDOT established a goal not to exceed a value of 1.3 for TTTRI for both the PM3 two-year (2023) and four-year (2025) periods. WisDOT met its goal with TTTRI values reported at 1.24 and 1.28 for years 2023 and 2025 respectively. WisDOT is currently in the process of establishing new TTTRI targets for the next PM3 reporting cycle for years 2027 and 2029.

Delay

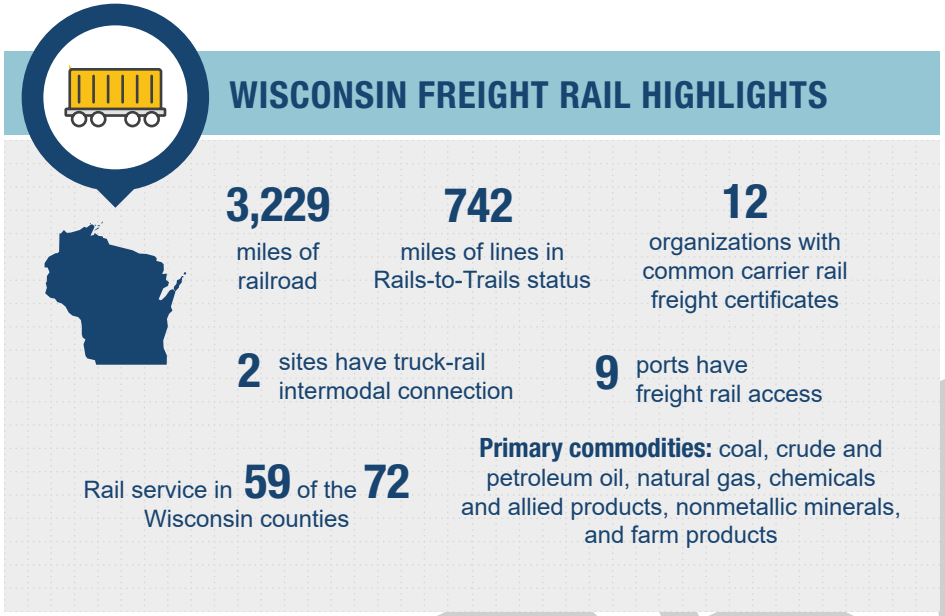
Measuring the amount of delay users experience on the state's highways shows the impact of such events as traffic incidents, work zones, and weather. Starting in 2019, Wisconsin began reporting Vehicle Hours of Delay for 13 of Wisconsin's metropolitan planning areas (MPA). The goal of this project is to reduce vehicle delays from the previous year. For the 2025 reporting period the state has not met its goal. For all of the MPAs combined during the daytime hours of 6 a.m. and 8 p.m. the vehicle hours of delay for 2025 increased to 15,738,239 from a 2024 delay of 13,919,247. This number unfortunately has increased statewide each year since 2020.

On-Time Performance

WisDOT's on-time performance measure indicates the department's ability to estimate and manage the amount of time it will take to complete a highway constructions project. By better management of estimating the construction time for projects WisDOT can better utilize contractor and department resources for future projects. Construction projects affect the general public and businesses. Adhering to a schedule allows better planning for potential impacts to all. The measurement is reported statewide and by each of the five regions in the state. The department has set a statewide target goal of meeting or beating the project time frame specified in the contract 100 percent of the time. WisDOT continues to make improvements to meet the goal of 100 percent having improved project delivery since a low of 89.6 percent in 2023.

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5.3.2 Railroad



The Surface Transportation Board (STB) classifies United States railroads into three classes based on annual operating revenues (adjusted for inflation). Additional classification definitions are provided by the Association of American Railroads based on network size and operating characteristics. Current class characteristics based upon the STB framework for U.S. railroads are:

- **Class I:** National scale, line-haul railroads with operating revenue exceeding $1,094,774,354 as of 2024.[12]
- **Class II (Regional):** Regional scale, line-haul railroads with operating revenue exceeding $49,143,204 as of 2024.
- **Class III (Short Line):** Local or Regional scale railroads that meet neither the Class I nor Class II definitions.

Table 5-5. Wisconsin Rail Service Miles by Company

COMPANY	MILES (INCLUDES OUT OF SERVICE)	MILES IN SERVICE
BNSF	277.4	278
CPKC	307.0	307
UP	585.4	581
CN	1,069.7	1,032
ELS	115.1	96
MCRY	3.6	4
EastTroy	7.3	7
WN	37.0	37
Tomahawk	5.3	5
WSOR	621.3	611
FOXY	460.6	247
WGN	24.5	23
WIRR	1.6	1
TOTAL	**3,515.9**	**3,229**

5.3.2.1 Freight Rail Condition

WisDOT works in partnership with the railroad operators on the active rail lines owned by WisDOT to review conditions, discuss capital improvement needs, and schedule projects. The state's primary focus is on monitoring system performance on state-owned and state-supported rail lines.

WisDOT uses speed and weight data to measure the condition of the rail line. The department's goal is to have 95 percent of state-supported rail line miles functioning at FRA Class 2 operating speed standards. The FRA Class 2 standards require track to be capable of operating up to 25 miles per hour with rail cars loaded up to 286,000 pounds.

Between 2022 and 2025, 38.85 miles of track were improved to meet this standard, resulting in a six percent increase towards meeting the department's overall goal of 95 percent. Through 2025, 83.1 percent of state-owned and state-supported rail lines meet the department's goal.

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5.3.2.2 Freight Rail Utilization

Railroads companies do not publicly disclose complete data on daily volumes by corridor, so providing exact daily train numbers is not possible. Further, daily volumes fluctuate due to seasonal demand, market conditions, equipment availability, and other factors. However, a relative assessment of the most active rail corridors in Wisconsin can be provided through datasets developed from available grade crossing data.

Wisconsin's freight rail system features three Class I corridors with high overhead traffic, along with numerous corridors and branch lines of varying traffic levels. The three corridors with the highest traffic include the BNSF corridor along the Mississippi River, the Canadian National (CN) corridor from Superior to Neenah to Waukesha to Chicago, and the CPKC corridor from La Crosse to Milwaukee to Chicago. Each of these corridors connects the Chicago region with West Coast import/export ports. The CPKC corridor also hosts Amtrak passenger rail operations, including Hiawatha service between Milwaukee and Chicago. The Union Pacific (UP) corridor between Chicago and the Twin Cities (via Milwaukee, Adams, and Eau Claire) also sees notable traffic, although not at the frequencies of the major corridors of the other Class I railroads. Other railroad corridors with frequent operations include WSOR between Milwaukee and Horicon, WSOR between Janesville and Madison, and CN between Appleton and Marinette via Green Bay.

5.3.2.3 Freight Rail Safety

The safe operation of rail lines is critical to Wisconsin's transportation system. Multiple stakeholders such as private railroad companies, the Office of the Commissioner of Railroads (OCR), WisDOT, and others contribute to railroad safety in the state. The OCR's role is to enforce regulations related to railway safety and to investigate the safety of highway-rail crossings. OCR has primary responsibility for making determinations of the adequacy of warning devices at railroad crossings and approving the installation of new railroad crossings, alteration of existing crossings, and closing or consolidating existing crossings.

WisDOT supports rail safety in the state by:

- Coordinating rail crossing investments with OCR
- Managing federal and state programs and delivering projects dedicated toward railroad crossing safety
- Working with railroads when designing and constructing rail crossing improvements
- Investing in programs that improve railroad tracks, roadbeds, and railroad crossings on state-supported rail corridors
- Ensuring that federal and state safety standards are applied to ensure adequate warning devices are installed when highway improvement projects are constructed in the vicinity of at-grade crossings.
- Collecting railroad crossing data and managing the data in the Railroad Crossing Information System (RCIS)
- Working to address safety concerns at crossings
- Working with railroads to assess damage and discuss preventative efforts following derailment incidents

5.3.2.4 Freight Rail Performance

As detailed in Section 5.3.2.1, the established performance measures (MAPSS) for railroads, provide a critical framework for evaluating operational efficiency, reliability, and capacity constraints across the state's rail network.

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5.3.3 Ports and Waterways

WISCONSIN PORT AND WATERWAY HIGHLIGHTS

29 commercial ports

230 miles of navigable waterways

10 Mississippi River locks and dams in Wisconsin

2 major waterway system connections:
Mississippi River and Great Lakes-St. Lawrence Seaway

Primary commodities:
coal, food & grains, nonmetallic minerals, cement, forest products, pig iron and steel, and project cargo

Water transportation is the most efficient method for moving bulk commodities. By mode, one gallon of diesel fuel can move one ton of cargo:

607 MILES Great Lakes freighter

202 MILES Freight train

59 MILES Truck

Wisconsin is directly connected to two major waterway systems: the Great Lakes Navigation System and the Upper Mississippi River System, as seen in Wisconsin's Commercial Ports Map. Wisconsin's port facilities serve as multimodal distribution centers linking waterborne vessels (ships and barges) with an extensive network of highways, railroads, and airports. As centers of economic activity, Wisconsin's ports and harbors include the operations of local and municipal government agencies; federal agencies such as the Coast Guard and United States Army Corps of Engineers (USACE); and private companies that contract with these agencies. The locations of river and lake port facilities in Wisconsin are shown in Figure 5-13. An inventory and description of Wisconsin's commercial ports is provided in Table 5-6 on the following page.

Figure 5-13. Wisconsin Maritime Cargo Handling Ports

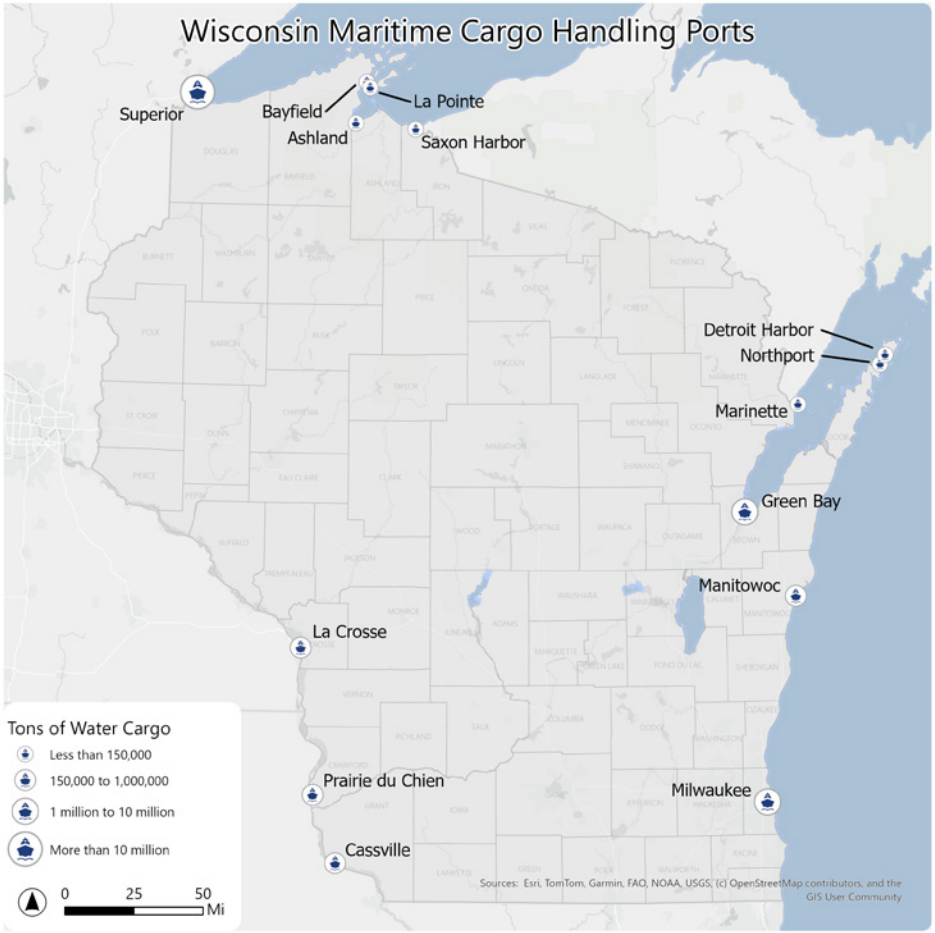


Table 5-6. Wisconsin Freight Tons and Value by Port

WATERWAY	PORT	FREIGHT TONNAGE (2023)	FREIGHT VALUE (2023)	MAJOR COMMODITIES
Great Lakes	Superior	14,118,700	$1,121,805,622	Iron ore, coal, grain, stone, fertilizer, cement, concrete, chemicals,gravel/sand
Great Lakes	Milwaukee	2,216,482	$1,352,722,162	Fertilizer, cement, chemicals, concrete, grain, gravel/sand, petroleum prod, stone aggregate, coal, steel/iron, machinery
Great Lakes	Green Bay	2,007,884	$1,060,338,527	Petroleum products, chemicals, stone, cement, fertilizer, coal, concrete, gypsum,asphalt
Great Lakes	Manitowoc	223,331	$36,013,228	Cement, concrete, metal scrap, stone, nonmetallic minerals, construction machinery
Great Lakes	Marinette	30,812	$52,103,149	Pig iron, construction machinery, aluminum
Mississippi River	La Crosse	798,147	$495,373,199	Portland cement, chemicals, concrete, oil kernels nuts or seeds, grain, distilled or blended liquors
Mississippi River	Prairie du Chien	305,558	$300,490,783	Fertilizers, chemicals, coal, grain, gravel/sand, stone, feed
Mississippi River	Cassville	169,223	$43,511,488	Grain, fertilizers
Other		155,576	$283,049,078	Agricultural goods, fish
All Waterways Total		**20,025,714**	**$4,745,407,235**	

Source: S&P Transearch Data 2023

5.3.3.1 Ports and Waterways Conditions

Condition of the Great Lakes-St. Lawrence Seaway System

To move freight, Wisconsin's commercial waterways rely on federal navigation infrastructure, including channels, locks, dams, breakwaters, and other navigation structures, as well as publicly and privately owned port and terminal facilities. The U.S. Army Corps of Engineers (USACE) operates and maintains much of the federal navigation infrastructure. USACE uses Operational Condition Assessments (OCA) to evaluate the physical condition and functional performance of federal navigation assets to inform maintenance, rehabilitation, and investment priorities.

Great Lakes–St. Lawrence Seaway System

USACE maintains federal navigation infrastructures supporting Wisconsin's Great Lakes ports and harbors, including dredging and structure maintenance and rehabilitation. A 2021 USACE conditions assessment of Great Lakes federal assets in Wisconsin were rated A/B (low risk of failure or closure) or C (medium risk)—none were rated D/F (high risk). The 2021 assessment incorporated dredging needs, structure condition, lock condition, and dredged-material-management functionality, and it predated the current OCA methodology. Continued federal investment in dredging, dredged-material management, and breakwaters and other navigation structures is critical for maintaining reliable access to Wisconsin's Great Lakes commercial ports.

Upper Mississippi River

Much of the Upper Mississippi River lock and dam system was constructed in the 1930s and is approaching a century of service. Routine maintenance and rehabilitation have kept the facilities operational, but continued federal investment is needed to maintain reliability and minimize disruptions to commercial navigation.

USACE uses its Inland Navigation OCA method to assess the physical condition and functional performance of federal navigation assets that inform

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maintenance and rehabilitation investment priorities. Table 5-7 summarizes major rehabilitation history, as well as 2025 vessel traffic and delay performance for locks and dams adjacent to Wisconsin. Operational delays vary among facilities, highlighting the importance of continued investment in system reliability.

5.3.3.2 Port and Waterways Utilization

Roadways connecting to the state's ports are sometimes overlooked, but they are a critical part of Wisconsin's freight system. Despite many of these connecting roadways being part of the NHS, they are typically owned and maintained by local roadway jurisdictions. As a result, these roads may not always be designed to accommodate oversize or overweight freight vehicles and maintenance needs are sometimes deferred because they don't serve high volumes of passenger traffic.

WisDOT and local governments share responsibility for maintaining these connecting roadways on the NHS system. As part of WisDOT's freight planning and local roads coordination efforts, the department works with local governments and Wisconsin's ports to identify solutions that address roadway issues for port areas.

Great Lakes-St. Lawrence Seaway System

During the 1950s, a 189-mile stretch of the St. Lawrence Seaway was constructed between Montreal and Lake Ontario. Seven locks were built to lift vessels nearly 250 feet above sea level as they travel the Seaway. Combined with the 8 locks of the Welland Canal, the St. Lawrence Seaway allows ships to travel between Montreal and Lake Erie. When combined with the Soo Locks, ships can reach Lake Superior. See the Great Lakes St. Lawrence Seaway System website for additional information, including a map showing the location of vessel traffic.

Upper Mississippi River System

The Upper Mississippi River system is defined as the natural floodplain between the head of navigation at Minneapolis, Minnesota and the confluence with the Ohio River at Cairo, Illinois. This nationally significant commercial navigation system includes 1,200 miles of the Upper Mississippi and Illinois Rivers and the navigable portions of the Minnesota, St. Croix, Black and Kaskaskia Rivers. Wisconsin has three commercial ports on the Mississippi River: Cassville, La Crosse, and Prairie du Chien.

A series of locks and dams and a nine-foot navigation channel accommodate the safe and efficient movement of barge and recreational boat traffic along the approximately 670 miles of the Upper Mississippi River between Minneapolis-St. Paul in Minnesota and St. Louis in Missouri, as shown in Figure 5-14.

In 2014, the United States DOT's Maritime Administration approved designation of the Upper Mississippi River from St. Louis, MO to St. Paul, MN as the M-35 Marine Highway Corridor. This designation, cosponsored by WisDOT, was a necessary step toward planning for an integrated, multimodal regional transportation system.

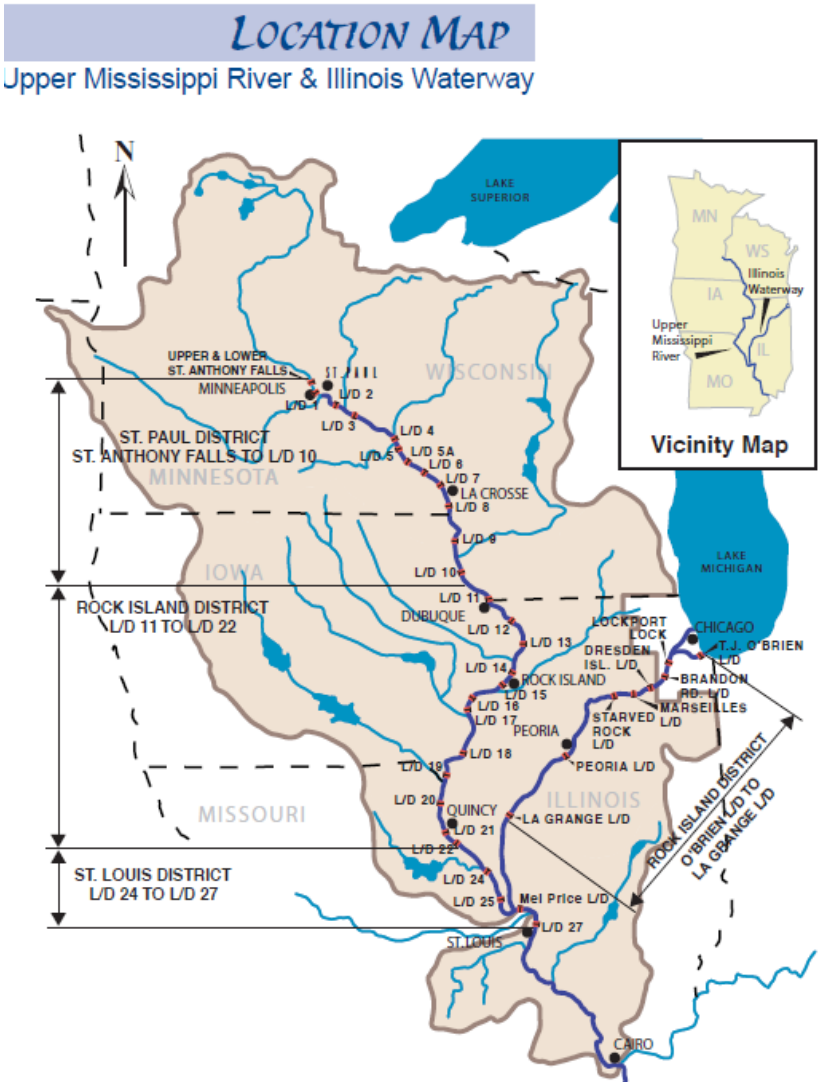
5.3.3.3 Ports and Waterways Safety

The U.S. Coast Guard (USCG) provides security and patrols along the Mississippi River and Great Lakes. The Coast Guard operates eight Great Lakes stations based in Wisconsin and the Quad Cities and St. Paul Sectors serve the Wisconsin stretches of the Mississippi River along with mobile patrols and the La Crosse Auxiliary. While the USCG has primary responsibilities and jurisdictions, state and local agencies also support the safety and security of these waterways, including the Wisconsin Department of Natural Resources, Wisconsin National Guard, Wisconsin Homeland Security Council, and local law enforcement. Wisconsin Emergency Management (WEM) coordinates the distribution of resources and assets needed to respond to specific maritime incidents, including weather disasters, on a case-by-case basis.

Maritime transportation on inland waterways has the lowest injury and fatality rates when compared to truck and rail transportation. A 2022 national study comparing fatalities between modes shows a ratio of one fatality on the inland river system, 26 fatalities on rail, and 120 truck freight fatalities on highways. Similarly, the national modal injury rate comparisons show one injury on the inland river system for every 96 on rail, and 1,147 truck freight injuries on highways. While this data is not specific to Wisconsin, it suggests the inland waterway system is substantially safer than highway and rail.[13]

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Figure 5-14. Ports and Waterways Performance



Source: U.S. Army Corps of Engineers

5.3.3.4 Ports and Waterways Performance

In 2023, an estimated 19.9 million tons (2.8 percent of Wisconsin's freight by tonnage), worth an estimated $4.6 billion (less than one percent of Wisconsin's freight by value) was transported by maritime freight. The twin ports of Duluth-Superior dominate the Great Lakes for the volume of cargo, due to the large quantities of western coal, northern Minnesota iron ore, and Upper Great Plains grain they handle. These bulk commodities are shipped through the twin ports to other destinations along the Great Lakes and overseas.

The Inland waterway system has a number of sources of delay, including lock operations, aging infrastructure, number of vessels, and lock closures. WisDOT uses USACE data on the proportion of vessels delayed and average delay on the Upper Mississippi River Locks to measure performance. Depending on the lock and dam being used, between 8 percent and 52 percent of vessels traveling through Upper Mississippi River locks and dams adjacent to Wisconsin experienced delays in 2025 as shown in Table 5-7.

Wisconsin commercial ports on the Great Lakes are managed by municipalities, often in partnership with private operators. As such, both are responsible for responding to bottlenecks or performance issues. However, many organizations such as the USACE, United States Coast Guard, municipalities, private and public entities, and WisDOT have been working cooperatively to address issues at the commercial ports in Wisconsin.

In addition, members of the Conference of Great Lakes and St. Lawrence Governors and Premiers Regional Maritime Task Force have developed a strategic plan to improve the efficiency and competitiveness of the Great Lakes maritime transportation system. Action items have been developed to increase maritime transportation efficiency and reduce costs, build new markets, increase economic activity, and plan for the future.

Created in 1979, the Harbor Assistance Program (HAP) assists port communities along the Great Lakes and Mississippi River in maintaining and improving waterborne commerce. From 1980 to 2026, WisDOT has contributed more than $238 million in matching funds for 166 port projects.[14]

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Table 5-7. Performance at Mississippi River Locks and Dams Adjacent to Wisconsin (2025)

LOCK AND DAM #	LOCK LOCATION	YEAR CONSTRUCTED	LAST MAJOR REHABILITATION	VESSELS	TONNAGE	PERCENT DELAYED VESSELS	AVERAGE DELAY (HOURS)
3	Welch, MN	1938	1988-1991	8,922	5,657,815	20	0.4
4	Alma, WI	1935	1988-1994	5,778	6,334,043	8	0.4
5	Minnesota City, MN	1935	1987-1998	4,292	6,324,589	29	0.7
5A	Fountain City, WI	1936	1989-2000	4,977	6,344,894	22	0.5
6	Trempealeau, WI	1936	1989-1999	4,070	7,988,057	17	0.6
7	La Crescent, MN	1935	1989-2002	5,415	8,053,032	32	1.2
8	Genoa, WI	1937	1989-2003	3,810	8,843,264	29	0.7
9	Lynxville, WI	1937	1989-2006	4,577	8,853,349	23	0.5
10	Guttenberg, IA	1937	1969	3,372	10,558,167	45	1.2
11	Dubuque, IA	1937	2005-2008	3,233	10,559,735	52	0.7

Sources: U.S. Army Corps of Engineers Lock Performance Monitoring System Reports, 2025
U.S. Army Corps of Engineers, St. Paul District, Locks and Dams
U.S. Army Corps of Engineers, Rock Island District, Locks and Dams

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5.3.4 Aviation

WISCONSIN AIRPORT HIGHLIGHTS

123 public use airports (98 publicly owned)

Air freight cargo shipped via planes in 2023 equaled

82,000+ TONS

with a total combined value exceeding $3.3 billion

12 airports provide air cargo services

Air cargo is often high-value, low weight/bulk, time-sensitive or highly specialized.

Most common commodities: small-packages, electronics, and instruments

5.3.4.1 Airport Conditions

Wisconsin has 123 public use airports across the state. Of these, 96 are publicly owned and 12 provided air cargo service in 2023. The locations of these airports are displayed in Figure 5-15. Information on tonnage and value can be found in Table 5-8.

Table 5-8. Wisconsin Air Cargo Volumes and Values (2023)

AIRPORT	TONNAGE HANDLED (2023)	VALUE (2023)
General Mitchell	63,277	$2,489,654,542
Dane County Regional	11,427	$499,316,635
Appleton Intl	7,013	$302,262,690
Rhinelander-Oneida County Arpt	394	$18,077,174
Central Wisconsin Arpt	182	$9,043,689
Green Bay - Austin Straubel	51	$25,092,149
Other	13	$180,046
Total	**82,358**	**$3,343,626,924**

Source: Transearch

Figure 5-15. Wisconsin Air Cargo Handling Airports



WisDOT's MAPSS measures include a measurement of the percent of airport pavements rated at a fair or above condition. In 2025 Wisconsin fell just short of its goal of 90 percent of primary runways meeting that condition, with 87 percent being rated at fair or above.

5.3.4.2 Aviation Utilization

According to 2023 Transearch data, Milwaukee's Mitchell International is Wisconsin's busiest air cargo facility, by both tonnage and value. Madison's Dane County Regional Airport and Appleton International Airport also handled more than $300 million in air cargo in 2023; no other state facility handled more than $25.1 million air cargo. Table 5-8 shows Wisconsin's air cargo activity by volume and value.[15]

5.3.4.3 Aviation Transportation Safety

WisDOT supports air cargo safety by:

- Assisting the Federal Aviation Administration (FAA) and local airport owners with infrastructure improvements and equipment for improved navigation and communications.
- Supporting engineering improvements ranging from technical improvements, such as landing and navigational aids, weather monitoring equipment, and rescue and firefighting equipment, to simpler treatments, such as runway lighting, land acquisition for protection zones, and fencing to prevent wildlife incursions onto runways.

5.3.4.4 Aviation Performance

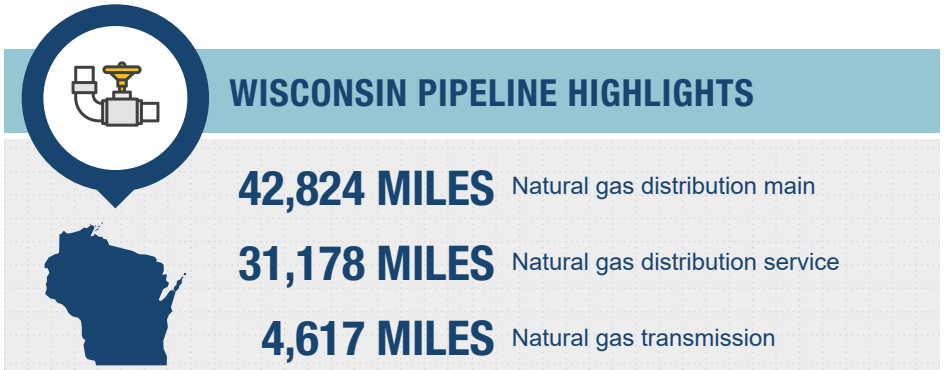
The air cargo sector in Wisconsin is likely to see significant growth over the next several years due to the construction of a new air cargo terminal at Milwaukee's Mitchell International. The terminal building encompasses more than 330,000 square feet, and features apron space for up to five class V (747- and 777-size) aircraft. More than 40 truck docks will also serve the facility. The intent is to redirect some of the international air freight (especially cargo with origins or destinations in Wisconsin) that is now passing through Chicago's O'Hare; that facility has capacity constraints and clearing customs can take up to one week. Truck drayage also faces congestion and tolling, and O'Hare's cargo landing fees per ton are almost twice those of Milwaukee.



Source: MACC (Milwaukee Air Cargo Center)

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5.3.5 Pipeline



Wisconsin is not a producer of natural gas or crude oil, but the state relies on natural gas and refined petroleum products to fuel economic activity. The pipeline system is privately-owned and used primarily for transmission and distribution of petroleum products and natural gas. The pipelines are also important to interstate commerce, carrying crude oil through the state to refineries elsewhere. Table 5-9 shows the mileage of pipelines based on federal classifications. Pipelines dedicated to the movement of natural gas make up 97 percent of all pipeline miles in Wisconsin.

Table 5-9. Wisconsin's Total Pipeline Miles by Type (2025)

COMMODITY/PIPELINE TYPE	MILES	PERCENT OF THE TOTAL
Natural Gas Mainline Distribution	42,824	53%
Natural Gas Service Distribution	31,118	38%
Natural Gas Transmission	4,617	6%
Natural Gas Subtotal	78,647.2	97%
Crude Oil Pipelines	1,181	1%
Petroleum Products (non-HVL) Pipelines	1,097	1%
Highly Volatile Liquids (HVL) Pipelines	238	0.3%
Petroleum Liquids Subtotal	2,515.4	3%
Grand Total	**81,162.6**	**100%**

Source: U.S. DOT, Pipeline and Hazardous Materials Safety Administration, 2026

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Figure 5-16. Wisconsin Pipelines – Natural Gas

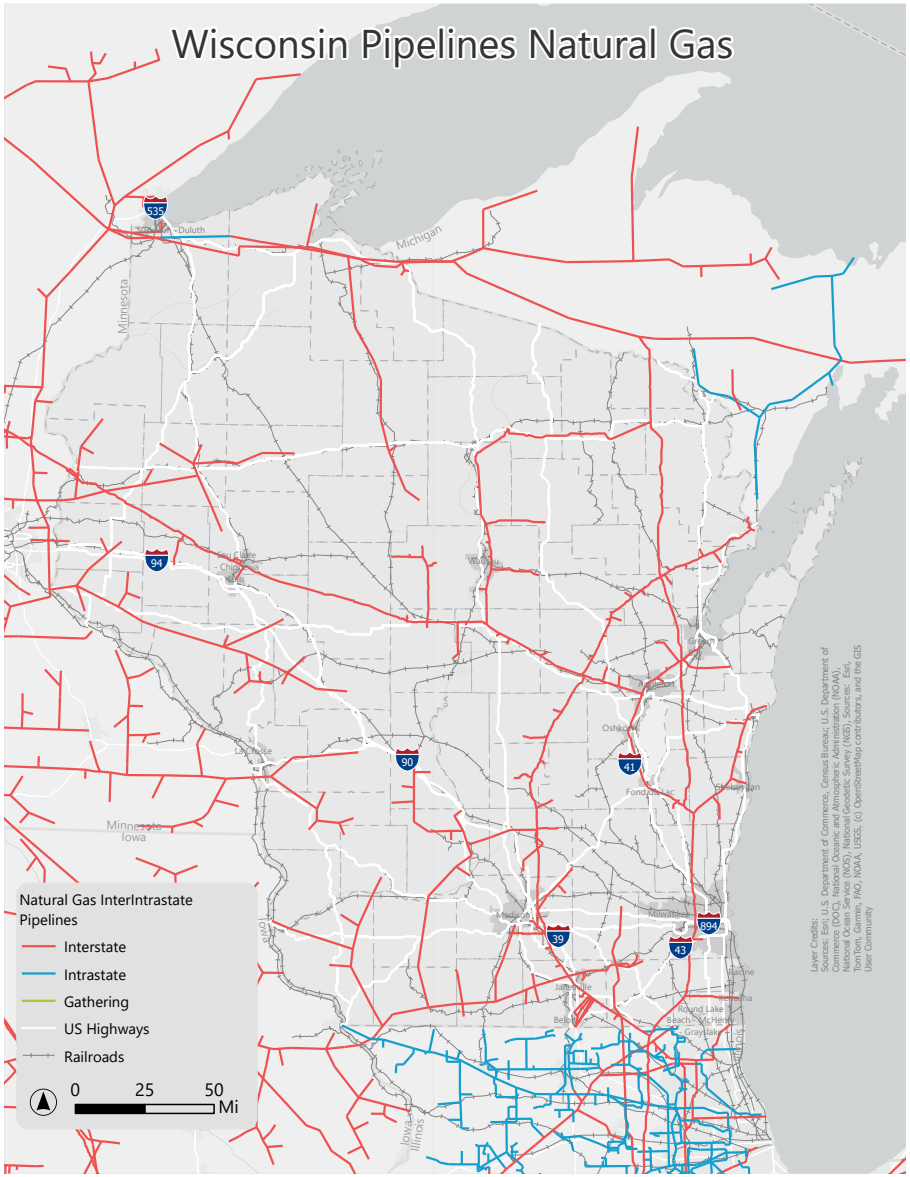


Figure 5-17. Wisconsin Pipelines – Petroleum

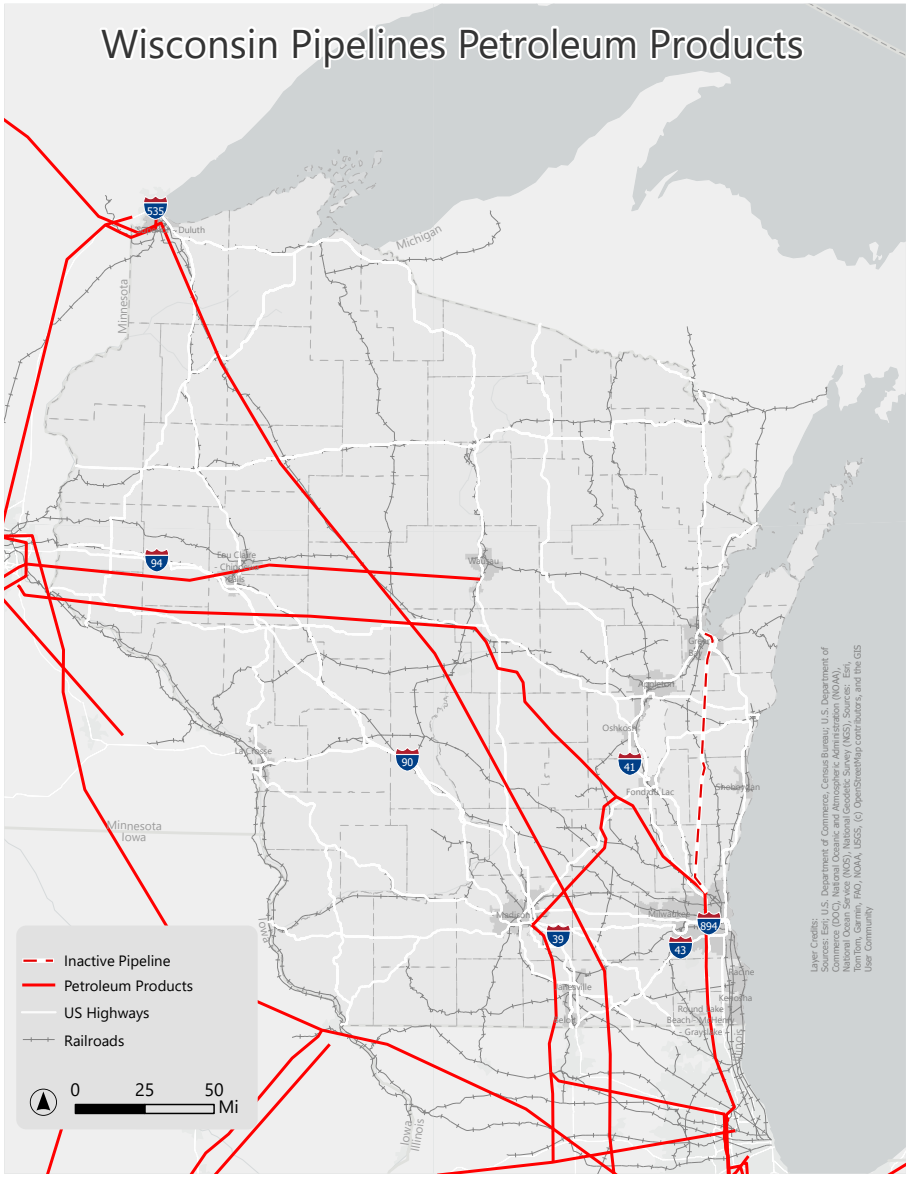
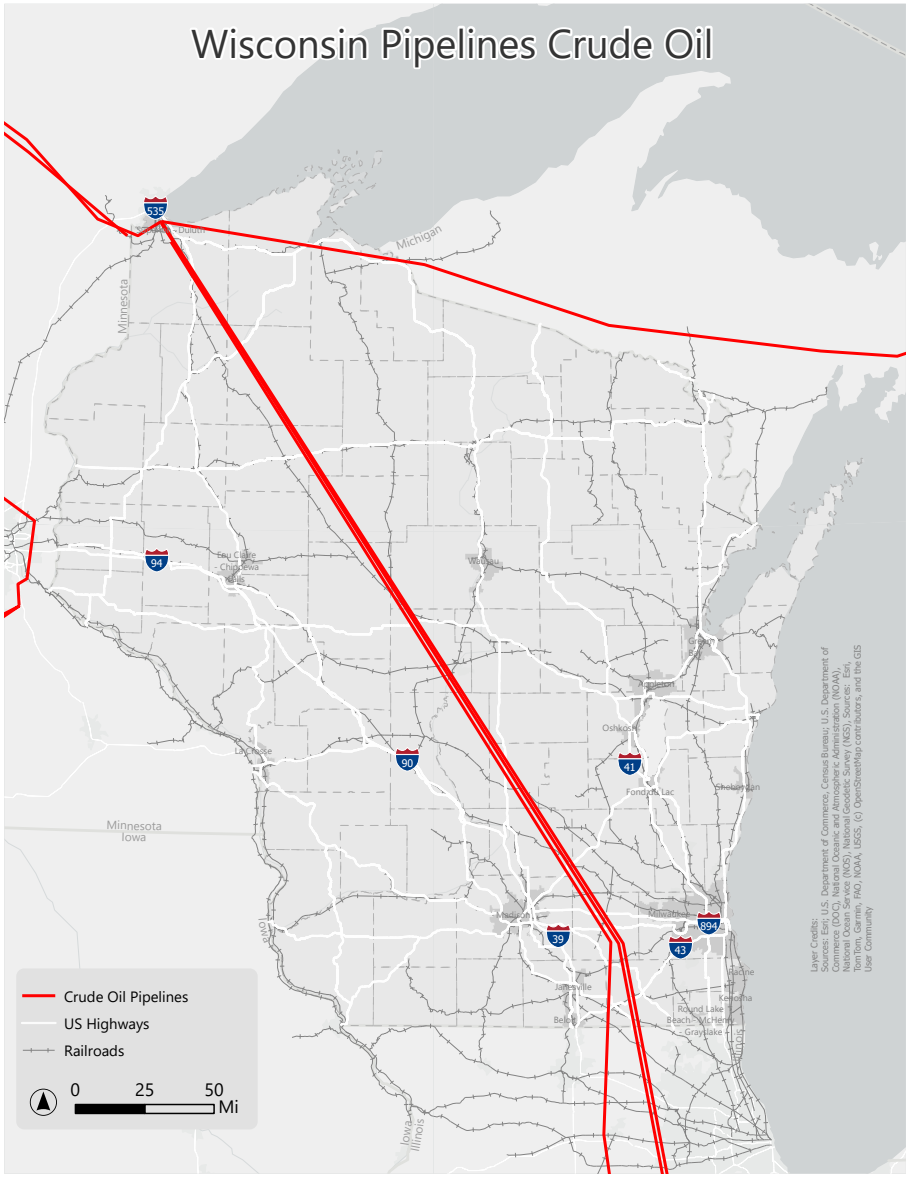


Figure 5-18. Wisconsin Pipelines – Crude Oil



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5.4 Freight-Generating Sites

In Wisconsin there are numerous locations that generate freight. The largest groups are suppliers, manufacturers, warehouses, distribution centers, and ports. These centers are tasked with creating or storing materials and/or goods and moving them across the United States and to the global economy. These sites have space to handle trucks, some railcars, and other methods for freight movement. These sites are usually located along the highway systems to have easy on/off access.

Suppliers provide goods or resources for other businesses. For example, raw material suppliers extract resources and provide a marketplace for manufacturers, warehouses, and shippers to use ports. Depending on the business, they transport the goods using the most cost-effective mode of transportation available to them. Raw materials such as coal or sand would generally be transported using rail or waterway modes that carry high bulk amounts.

Manufacturers provide essential components for finished goods to the economy. Taking in raw materials or components and producing a consumer product. The products can differ from high-tech goods to mass-produced consumer goods. In Wisconsin there are many manufacturers that handle a variety of products, such as, food, wood, or metal. All help to diversify Wisconsin's economy. Some of the largest challenges for manufacturers are the price of materials, energy and labor. They are also sensitive to supply chain disruptions and shifts in manufacturing needs. Typically, manufacturers move their goods via truck unless another mode is found to be more efficient and cost-effective.

Warehouses and distribution centers are locations to store and/or sort products to their final destinations. They provide a storage space for materials or goods before transferring to an end location. Warehouses are used to store both raw materials and finished goods for longer periods of time. Throughout Wisconsin there are a variety of warehouses. Temperature-controlled warehouses utilize specialized cooling, heating, and monitoring systems to store products within specific temperature ranges, ensuring the quality, safety, and integrity of perishable or sensitive goods. These facilities prevent spoilage and degradation for items like food, pharmaceuticals, and chemicals by maintaining a consistent environment throughout the storage and distribution process. Dry warehouses will store products without special treatment of the environment. These products are generally more durable and require less maintenance due to their packaging or content. Examples include shelf stable packaged foods, industrial materials, and paper products. Distribution centers are for quickly moving large amounts of products to end consumers. Distribution centers handle a large quantity of freight movement. Both warehouses and distribution centers help support the supply chains in Wisconsin, the nation, and the global economy. Like manufacturers, warehouses and distribution centers are also sensitive to supply chain disruptions and energy costs.

Airports and seaports are important parts of freight generating sites in Wisconsin. These two modes of transportation carry different types of goods. Airports generally focus on speed of transportation while seaports focus on efficiency and bulk cargo. While less than 1 percent of freight value and roughly 3 percent of freight tonnage move through Wisconsin's ports, they connect the state with the rest of the U.S. and the global economy.[16]

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5.4.1 Intermodal and Transload Facilities



Intermodal Facilities

Two intermodal facilities are currently in operation in Wisconsin, as shown in Figure 5-19. CN railroad serves a facility owned by Ashley Furniture in Arcadia and CN operates its own facility in Chippewa Falls.

- **Arcadia:** This facility was opened in 1994. The facility is dedicated to shipments to and from Ashley Furniture's assembly plant. Inbound containerized loads are predominantly from Asian markets. Outbound loads travel to consumer markets through the U.S.
- **Chippewa Falls:** This facility was open in 2012. Cargo handled here is primarily inbound consumer products destined for regional Menards stores and outbound loads of grain and manufactured goods. These outgoing movements are served by an on-site grain transfer facility, facilitating 3,000 container exports annually.

Transload Facilities

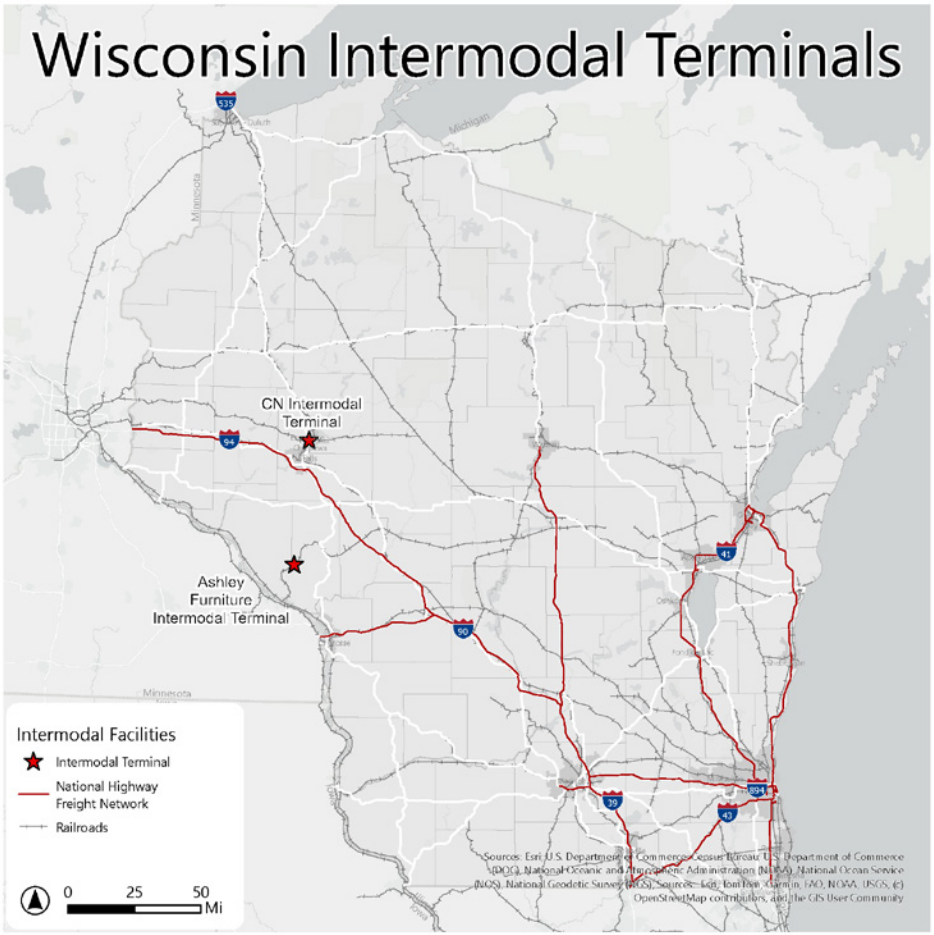
There are currently over 400 transload facilities interspersed throughout the state. Many of these facilities are large, privately operated warehouse structures, with docks for rail cars and semi-trailers. Some are climate-controlled, offering refrigerated and/or freezer storage. Other facilities use covered or uncovered outdoor locations to hold bulk loads such as sand, stone, and salt. These facilities transfer loads between modes and assist companies to move commodities through Wisconsin.

Intermodal/Transload Facility Conditions and Performance

Due to the privately-owned nature of the intermodal and transload facilities in Wisconsin, WisDOT has little to no role in oversight of the conditions and performance at these locations.

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Figure 5-19. Wisconsin Intermodal Terminals



5.4.2 Other Freight-Generating Facilities

Based on value, Wisconsin's largest freight-generating sector is warehousing and distribution. These facilities move a massive volume and value of goods throughout the state. However, the second-highest value in Wisconsin is generated by petroleum refining products. These products are generally moved through pipelines and tanker trucks. Another source of high value for Wisconsin is the drayage from rail intermodal yards. Wisconsin does not have an intermodal yard on the eastern half of the state, so many trucking companies will use trucks to transport their goods to and from Chicago intermodal yards.

Other products based on the resources in Wisconsin are lumber for paper and corrugate, along with sand and gravel, agriculture, dairy, and meat products. Facilities that handle lumber will transfer logs to a yard and, if able, then transfer it over to rail, boat, or larger trucks to transport large portions of lumber. In agriculture, trucks will move grains from silos to larger grain elevators. Vegetables follow a similar path from trucking them from farms to large manufacturers, warehouses, and distribution centers. These products could be sold directly to consumers or go through further steps involving warehousing and distribution. The dairy and meat industries also follow a similar route using trucks or other modes to connect them to the rest of the supply chain. Each step of the way produces additional freight to the Wisconsin system.

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The DeLong Company's Agricultural Maritime Export Facility (AMEF), which opened in 2023 at Port Milwaukee, offers farmers access to global markets via the Great Lakes-St. Lawrence Seaway system. The AMEF can receive agricultural products via both truck and Class I rail, and can load vessels between 8,000 and 22,000 metric tons. In addition to investments made by the company, development of the facility was supported by U.S. DOT Port Infrastructure Development Program (PIDP) funds, WisDOT Harbor Assistance Program (HAP) funds, and an investment by Port Milwaukee.

Source: The DeLong Co., Inc.

6

Freight Trends and Challenges

CHAPTER 6 ▪ WISCONSIN STATE FREIGHT PLAN

2027

6. Freight Trends and Challenges

6.1 Overview

The Covid-19 pandemic, which reached its peak as the previous State Freight Plan was being drafted, brought freight markets to the highest level of turmoil witnessed in decades. As the pandemic has subsided, supply chains have rebalanced, the surge in demand for consumer products has eased, and global freight movement costs have generally fallen. However, additional factors have emerged to create uncertainties that will shape freight demand and movement during the next several years. These include policies to bring industrial production back to the U.S., market dynamics that continue to shape how consumers buy products, demographics that are shaping the state's workforce and overall consumer demand, and technologies that provide greater safety and analytical capacity. Further, each freight mode has specific factors shaping how and how efficiently it operates in delivering freight from shippers to receivers. This chapter will identify broader continental and global factors shaping freight movement, and the specific operational factors for each mode.

6.2 Global Trade and Supply Chains

6.2.1 USMCA and Global Supply Chains

For most years across the past four decades, the top trading partners of the United States have included Canada and Mexico. Under the existing United States-Mexico-Canada Agreement (USMCA), joint review of that agreement was due to be completed by July 2026. By the end of the process, the three trade partners had to choose to renew, revise, or terminate the agreement.

The key sectors that feature specific rules and focus include the automotive industry, steel, agriculture, and pharmaceuticals. Other areas of review will include the agreement's Rapid Response Labor Mechanism and dispute settlement processes.[1]

Among the other top concerns raised by the U.S. in discussions include rules of origin, including better means to verify that items are originating within the nation of declaration, rather than originating elsewhere and being passed through. Another stated objective is the reshoring of production of electronics, semiconductors, and pharmaceuticals.[2]

Both Canada and Mexico formally requested renewal of the agreement, which would have extended the pact another 16 years. Canadian negotiators expressed willingness to consider proposals that will be jointly beneficial to the long-term prosperity of the three nations. Canada identified steel, aluminum, automobiles, and lumber as its sectors of concern. If Canada, the U.S., and Mexico did not agree to extend the USMCA by July 1, 2026, the pact would have to be renewed annually, until 2036.[3] As of the July 1 deadline, the United States indicated it did not intent to renew the existing agreement.[4]

As stated, agriculture is a critical component of the USMCA, with $149 billion in U.S. farm and seafood exports to Canada and Mexico helping support nearly

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half a million jobs. One trade expert expects that renegotiation for the next iteration of the agreement will take several years.[5]

The border crossing between Windsor, Ontario, and Detroit, Michigan, remains critical to bi-national trade. The recently completed Gordie Howe International Bridge marks a $4.4 billion investment to support manufacturing and the automotive industry on both sides of the border. This bridge will help address congestion at the existing Ambassador Bridge and the Blue Water Bridge (which connects Port Huron, Michigan, and Sarnia, Ontario). In 2025, 2.1 million trucks crossed the Blue Water Bridge, and 1.8 million trucks crossed the Ambassador Bridge.[6]

Trade with Mexico has also been critical to supporting reshoring and nearshoring efforts in America. Port Laredo was the nation's top port (by value) in 2023 and 2024, and even though it set an annual record for its fifth straight year in 2025, it fell behind Chicago's O'Hare and New York's JFK International. Imports of AI-related computer components and GLP-1 drugs (at O'Hare) and gold imports and exports (at JFK) were identified as boosting their trade. 2025 marked the first year that the top two ports were airport facilities, due to exceptional value growth at O'Hare (+31.5 percent over 2024) and JFK (+53.5 percent).

However, by April 2026, Port Laredo regained status as the top trade gateway for a second straight month, with almost $34.2 billion in monthly cross-border trade. O'Hare was second at $33.9 billion, and JFK third at $29.1 billion. For the first four months of 2026, JFK ($126.8 billion) and Laredo ($126.4 billion) are nearly tied in their trade values. The other top ten ports (in order) include the Port of Los Angeles, Port of Houston, Los Angeles International Airport, Port of Newark, San Francisco International Airport, the Detroit Ambassador Bridge, and the Ysleta–Zaragoza International Bridge (at El Paso).[7]

One of the critical pieces of infrastructure that has helped improve freight fluidity at Laredo is the Patrick J, Ottensmeyer rail bridge utilized by CPKC. Completed in late 2024, this bridge parallels the previously existing century-old rail bridge and more than doubles the capacity of rail freight at this crossing.[8]

6.2.2 International Trade

The trade across North America is a large subset of America's global trade. America's trade policies with other countries vary from nation to nation, and have been developed with the intent of incentivizing domestic manufacturing and production. Tariffs can play a role in where goods are produced, which in turn can affect how goods are brought to or taken from Wisconsin.

In 2025, China fell below ten percent of all U.S. imports and U.S. trade for the first time in at least three decades. The effects of nearshoring were evident, as Mexico became the first nation since 2006 to lead the United States in total trade, exports, and imports. In 2025, the top import category was the broad computer category, attesting to the economic pull of data center development and investments in artificial intelligence. Of note, the percentage of U.S. imports subjected to new tariffs was calculated to be 36.2 percent as of September 2025.[9]

6.2.3 On/Near Shoring

For the past few decades, the offshoring of goods production to overseas markets such as China was a common trend. However, recently, some of these operations have seen a reverse—or modification—of this trend. Nearshoring refers to the relocation of production to markets closer to the final point of use, for example, shifting production from China to Mexico. Reshoring refers to the relocation of production back to the home country.

One iconic Wisconsin company, Harley-Davidson, announced a reshoring plan in June 2026. One of its production platforms is being returned to facilities in Pennsylvania and Wisconsin, encompassing machining, powertrain assembly, painting, and final vehicle assembly work. The transition is expected to be completed by the end of the third quarter in 2027, timed with the roll-out of 2028 models. Harley-Davidson expects to manufacture more than 100,000 motorcycles out of its York, Pennsylvania, facility that year.[10]

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6.3 Changing Market Dynamics

6.3.1 E-Commerce

One of the most transformative changes for the consumer economy has been a shift from purchases at brick-and-mortar locations (such as shopping malls) to on-line purchases. The fourth quarter 2025 e-commerce estimate increased 5.3 percent (±1.8%) from the fourth quarter of 2024 while total retail sales increased 2.7 percent (±0.5%) in the same period. E-commerce sales in the fourth quarter of 2025 accounted for 16.6 percent of total sales.[11]

In 2025, the top e-commerce marketplace was Amazon, with $300 billion in third-party sales. In second place, eBay listed $39 billion in sales, followed by Temu at $22 billion, and TikTok Shop and Walmart tied at $15 billion. Of note, Walmart integrates its existing physical stores with its e-commerce platform.[12]

Freight transportation systems are under continuous adaptation to make e-commerce more efficient. Last-mile costs are 53 percent of total delivery charges, with some of the challenges including failed deliveries (and the need to attempt redelivery), parking and building access challenges in urban areas, route inefficiencies, and rising customer expectations (faster delivery windows).[13]

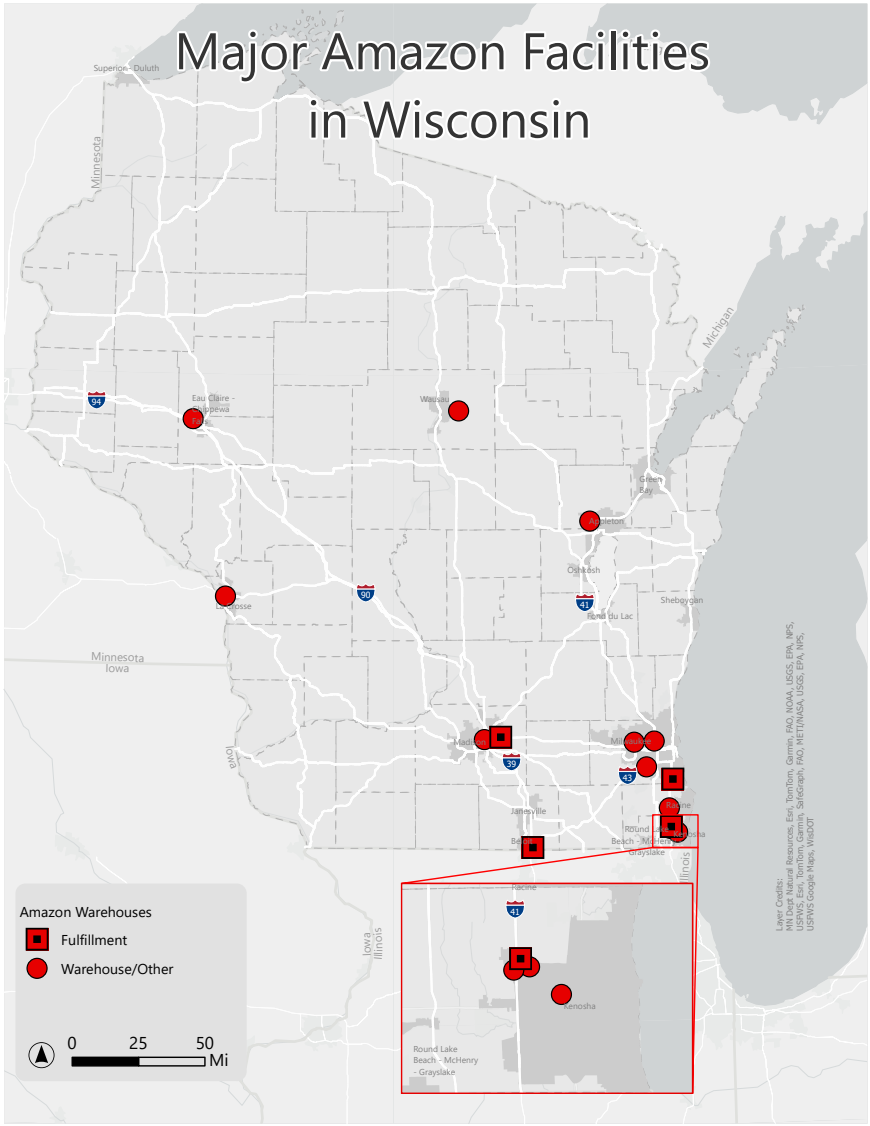
A study for the Texas Department of Transportation found that Amazon facilities generate a significantly higher number of total daily trips per thousand square feet of space than other high-cube warehouses. Trip generation for a 625,000 square foot warehouse was estimated at 1,391 trips in the inbound direction (542 trucks), and 1,409 trips in the outbound direction (648 trucks) per day, with higher volumes at holiday peak season.[14]

In May 2026, Amazon announced it would open its logistics network to external companies, allowing them to store and ship goods. “Amazon Supply Chain Services” is expected to challenge UPS and FedEx as a transportation provider for business-to-business sales across all modes, also taking advantage of capacity in Amazon’s existing storage and sorting facilities and equipment. Among the initial businesses signing on to this service model were Proctor & Gamble, 3M, and American Eagle Outfitters.[15] This business model could be expected to generate additional inbound semi-truck traffic at Amazon facilities, and additional outbound delivery van traffic from those facilities. As a result of increased traffic volume and changing patterns, roadways adjacent to e-commerce fulfillment centers will require longer right turn lanes, dedicated left turn lanes, additional traffic control devices, and potential re-engineering of roundabouts.

In Wisconsin, Amazon is expected to open a new facility near Cottage Grove (at the eastern edge of Madison) in 2026. This facility will consist of 634,800 square feet of warehouse space and 3.2 million square feet of storage space.[16] That facility, as well as other major Amazon fulfillment and warehouse operations in Wisconsin, are depicted in Figure 6-1.

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Figure 6-1. Major Amazon Facilities in Wisconsin



Source: WisDOT Bureau of Planning and Economic Development

6.4 Demographic and Workforce Changes

Wisconsin's recent and projected population trends show slow statewide growth followed by long-term decline, with only a small number of counties expected to gain residents in future decades.

Between 2010 and 2020, the state's population grew modestly, from about 5.69 million to 5.89 million, a 3.64% increase. Projections show the population holding steady around 5.89 million in 2030, then declining to 5.84 million in 2040 and 5.71 million in 2050.

County-level projections reveal that growth will be highly concentrated. By 2030, only 15 of Wisconsin's 72 counties are expected to gain population, while 52 counties will lose residents and five will remain stable. Growth is expected primarily in Dane County, the Fox Valley, and parts of western Wisconsin stretching from Eau Claire toward the Twin Cities. In contrast, nearly all southeastern Wisconsin counties, except Ozaukee, are projected to lose 1-3 percent of their population by 2030.

The pattern intensifies in later decades. Between 2040 and 2050, county-level population loss is forecast to accelerate to 4-9 percent, with only nine counties projected to grow. Many counties in north-central and northeastern Wisconsin are expected to lose more than 10 percent of their population in each decade from 2030 to 2050.[17]

Overall, Wisconsin's future population landscape is defined by stable or declining statewide totals, concentrated regional growth, and widening geographic disparities. In particular, as aging demographics and low fertility continue to shape long-term trends.

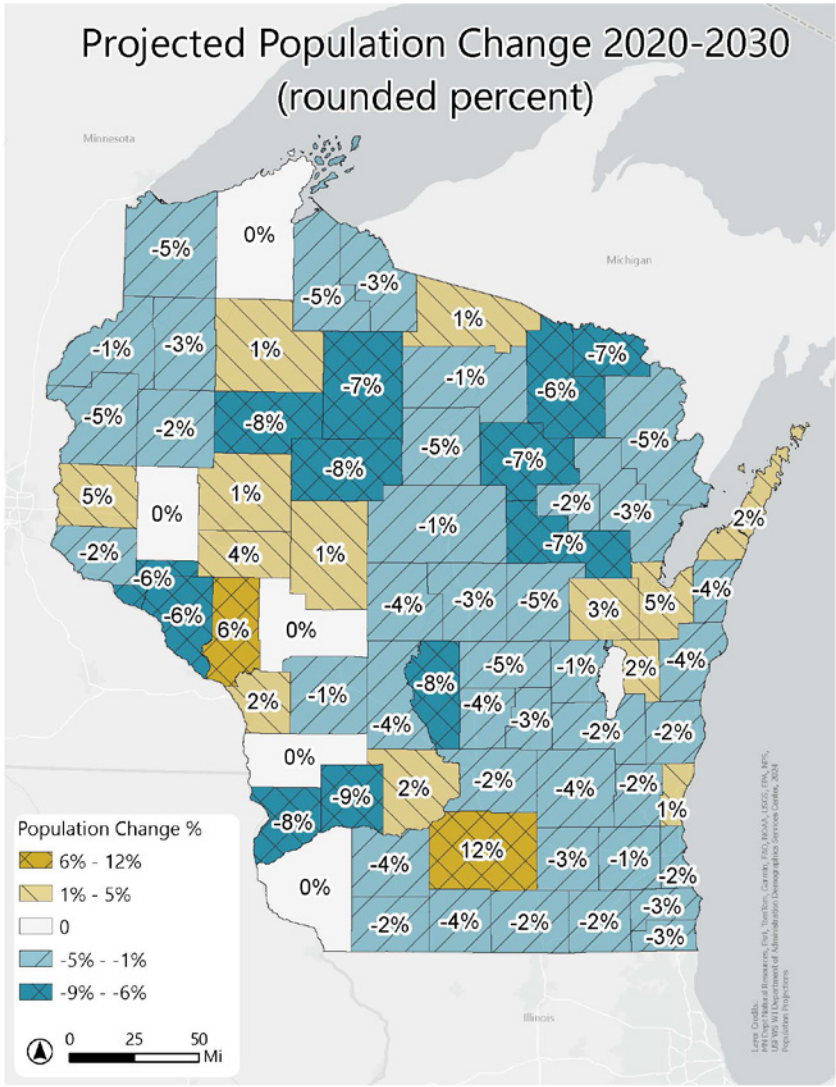
The population that remains is also projected to be increasing in age. In 2020, half of Wisconsin's counties (36 of 72) had at least 80 percent of their populations under the age of 65. Between 2020 and 2030, the last surge of the "baby boomer" generation brings all but five counties to have more than 20 percent of their populations age 65 or older. Statewide, Wisconsin is projected to average almost one in four (23 percent) of its population as 65 or over from 2030 through 2050.

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The counties expected to have the highest percentage of population in that dataset are concentrated in northern Wisconsin; 10 counties in that region are expected to have at least one-third of their populations age 65 or higher. The counties with the youngest populations are projected to be Dane, Milwaukee, Brown, and several rural counties in west-central and southwestern Wisconsin.[18]

With an older population, the percentage of population in the workforce could be expected to decline in the long term. However, the Wisconsin Department of Workforce Development (DWD) has projected a medium-term growth of 3.4 percent for overall state employment between 2024-2034. This reflects a projected increase of around 110,401 jobs, bringing 2034 projected employment in Wisconsin to approximately 3.36 million. Construction (+9.6 percent), Professional and Business Services (+4.2 percent), and Leisure and Hospitality (+5.0 percent) are the sectors projected to have the greatest growth in employment.[19]

Figure 6-2. Projected Population Change in Wisconsin by County, 2020-2030



Source: Wisconsin Department of Administration

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Reduced populations and reduced workforces could have implications for the movement of freight. While developments in automation can be expected to increase productivity, the reduction in the overall workforce has the potential to lead to reduced overall manufacturing output, especially in the regions experiencing the greatest population losses. This could reduce demand for raw materials being transported into these regions for production, coupled with reduced outbound shipments of finished products to warehouses. Additionally, with fewer residents in the younger demographic groups, overall household formation numbers are likely to decline, reducing demand for durable household goods such as furniture and appliances. This could translate into fewer deliveries of these products to retailers.

One innovative program that is addressing freight needs has recently expanded its scope. The original program (under 2023 Wisconsin Act 153[20]) was designed to help overcome financial barriers to CDL training. It allowed Wisconsin residents to receive grants of up to $3,000 to cover up to half the costs of entry-level driver training at a Wisconsin school. Program jurisdiction was designated to DWD, which tracked the number of grants and total reward amount. In 2026, the language of the act was expanded to allow employers and other groups that pay for third-party CDL training to also be eligible for the grant, and to allow schools with at least one Wisconsin facility to qualify. The FMCSA Training Provider Registry identifies more than 600 training providers that operate in Wisconsin.[21]

6.5 Innovative Technologies

6.5.1 Electrification and Alternative Fuels

Commercial vehicles have used a wide variety of alternative fuels to diesel, including battery electric, biodiesel, renewable diesel (derived from algae), liquefied natural gas (LNG), compressed natural gas (CNG), and hydrogen. Alternative fuels have been tested and adopted in part by fleet operators such as UPS, Walmart, Amazon, and FedEx,[22] occasionally using incentives that had been offered through the U.S. Department of Energy.[23]

Industry analysts are predicting electrification will make steady inroads into the commercial vehicle center. A report in March 2022 forecast medium-and heavy-duty commercial vehicles (MHDVs) would see 24 percent market demand for all-electric vehicles by 2030, and 53 percent by 2035. In 2025, 12 percent of new Class 7 and 8 trucks sold in the U.S. were electric, five times higher than in 2022.[24] Groups such as the North American Council on Freight Efficiency (NACFE) have developed information and tools to assist fleet owners in the transition to alternative fuel vehicles, including its Run on Less demonstrations, which report findings from pilot studies looking at the implementation of alternative fuel trucks.[25] Current electrification plans for MHDVs focus on drayage, last-mile, and short distance transport because of constraints caused by the battery range. These applications have led to electrification in many intermodal settings.[26]

One limiting factor is supporting infrastructure. As of 2025, there were more than 3,500 public heavy-duty charging stations across the nation. Most electrified fleets utilize private depots for overnight or mid-shift charging; building out these and additional public charging stations will require increased coordination with utilities, local governments, and equipment manufacturers, especially as grid capacity becomes an increasing concern. Another set of challenges includes the initial costs of the vehicles, coupled with costs of any supporting infrastructure.[27] However, analysts predict the initial vehicle cost will drop as truck battery prices fall, and more batteries are recycled into use. Figure 6-3 shows an estimate on when specific truck types will approach cost parity between battery electric and diesel-powered internal combustion engines.[28]

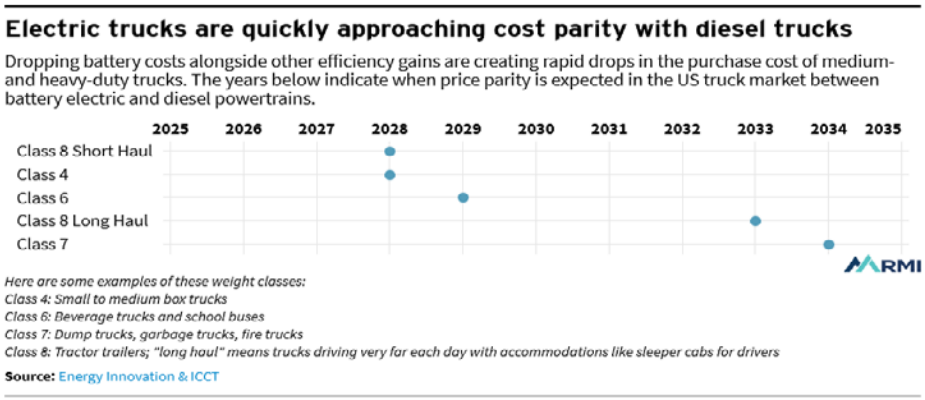
Other modes are also experimenting with alternative fuels. Freight railroads across North America have tested hydrogen, natural gas, and battery power. Most Class I railroads have developed their own programs or worked with manufacturers to develop and test locomotives propelled by fuels other than diesel. Due to limited range with most electric options, the most frequent uses of all-electric and hybrid-electric locomotives have been in rail yards. Another fuel option being developed is the hydrogen fuel cell.

Maritime operations are being compelled to reduce carbon emissions through 2050 under a defined framework of targets set by members of the International Maritime Organization, including a 40 percent reduction from 2008 levels by 2030. Current alternative fuel options for the sector include LNG, liquefied petroleum gas (LPG), methanol, and biofuels. Port electrification technology

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has become more widespread. Ports can take advantage of electric cranes, cargo handling equipment, and drayage trucks. Nationally, port electrification has also received $4 billion of dedicated federal funding through the Clean Ports Program and the Port Infrastructure Development Program.[29]

Figure 6-3. Price Parity Timeline for Medium- and Heavy-Duty Trucks



Source: Energy Innovation and ICCT, via RMI

Within the IIJA was the creation of a program called the National Electric Vehicle Infrastructure Program (NEVI). In order to qualify for the funding, states were required to submit an EV Infrastructure Deployment Plan in 2022 and annual updates through 2025 to the Federal Highway Administration (FHWA). The Wisconsin Electric Vehicle Infrastructure Plan is available on the WisDOT transportation electrification webpage.[30] Program funds are directed to support the construction of EV charging stations that serve critical interstates and highways. Wisconsin anticipates receiving $78.65 million over the five-year life of the program and has awarded 120 projects throughout the state totaling over $62.1 million through September 2026.

Wisconsin's EV Alternative Fuel Corridors (AFCs) received fully built-out status in February 2026 and can now fund charging infrastructure off the AFC system. WisDOT's most recent round of awards focused on providing charging options to additional key U.S. and state highway corridors across the state.

WisDOT has joined other state and federal agencies in promoting access to both alternative fuels and electrification, including direct participation in designating alternative fuel corridors and participation in regional incentives. More information on these initiatives can be found on the WisDOT Alternative Fuel Corridors webpage.[31]

6.5.2 Communications Technology

Communication technology continues to evolve and be applied to all aspects of truck freight movement, from the cab to the trailer. Technological advances in communication enable the trucking industry to communicate more effectively.

- Point-of-purchase information will have a greater role in driving warehouse orders and just-in-time delivery demands.
- Radio Frequency Identification (RFID) tagging will increasingly be adopted to improve shipment tracking.
- Warehouse management systems will allow real-time awareness of inventory location, including items in transit.
- Electronic Data Interchange (EDI) systems will become increasingly sophisticated and integrated across larger supply chains.

6.5.3 Connected and Automated Vehicles (CAV) Technology

Among the technologies to improve safety and mobility that have been explored in the United States are those of Connected and Automated Vehicles. A connected vehicle communicates with nearby vehicles and infrastructure (collectively referred to as V2X), while (depending on level of automation) an automated vehicle can manage some, most, or all driving tasks to varying degrees and under certain conditions.

Specific to truck freight, technology in trucks like Automated Driving Systems (ADS), Advanced Driving Assist Systems (ADAS), and platooning technology may have a significant impact on the future or truck-bound freight efficiencies and safety. ADS testing is underway in several states and includes operations where human drivers operate in complex urban environments, using the

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ADS to operate in less-congested long-distance corridors. Connected trucks may deploy platooning, a vehicle-to-vehicle technology that allows vehicles to coordinate braking, acceleration and eventually steering. As technology advances, platooning will allow the lead vehicle to control navigation as well. Under current laws in Wisconsin, each vehicle must have a driver.

WisDOT has developed a Strategic Work Plan, and collaborates with other states, local governments, academia, and industry. The purpose is to prepare the state transportation system, its partners, and the general public for the safe and efficient integration of connected and automated vehicles. The Work Plan builds from distinct responsibilities and regulatory roles for states and for the federal government. More details on WisDOT's CAV efforts can be found at the WisDOT CAV webpage.[32]

6.5.4 Other Innovative Technologies

More broadly, other innovative technologies continue to be applied across all freight modes to improve safety, security, efficiency, and customer awareness. Trucking has been at the vanguard of many initiatives, including transportation management systems, route optimization software, and predictive analytics. Digital platforms now connect shippers and carriers to streamline the freight matching process; other platforms have focused on detecting carrier fraud and theft.[33]

The vehicles and trailers themselves are being transformed as more technologies are adopted. These include the Mirror Eye camera system that provides more complete visibility along the truck, and Smart Drive camera systems to record activity behind, along, and in front of the truck (including night vision, infrared cameras, and "look down" cameras on the passenger side) to detect potential hazards out of the direct view of the driver.

Additional safety features include a collision mitigation system that warns of vehicles in front and automatically applies brakes if drivers do not take action and sideguard radar systems that also detect potential obstacles along the cab and trailer. In the cab, the camera images have displays that indicate the end of the trailer as well as 40' and 80' distances behind the trailer. Back-up cameras also help guide drivers to easily center trailers for pick-up.[34] Other features may include speed limiters and lane departure warnings. The company using these technologies also incorporates safety analytics and virtual reality tools in its driver training.[35]

Freight railroads have been deploying automation for decades, but new and emerging technologies are further enhancing safety. These include digital train inspection portals, in which a passing train has all of its equipment imaged and analyzed to identify wheel damage, brake issues, and structural wear. Autonomous track inspection systems use track geometry cars to identify track defects. Wayside detectors monitor wheel integrity, axle temperature, and track alignment to prevent derailments. Drones provide real-time inspections of tracks, bridges, and rail yards to identify defects and support safer and more efficient maintenance. Digital data exchange amongst railroads is now being deployed through the Railinc system, which helps track railcar locations, monitors equipment health, and manages the flow of operational information.[36]

Figure 6-4. Wheel Temperature Detection Systems



Source: Canadian National, via Association of American Railroads

Across all modes, real-time tracking and sensor technology offer end-to-end visibility into shipments, enabling proactive monitoring and faster response to disruptions. Advanced analytics and machine learning provide insights from vast amounts of data, enabling predictive analytics to inform better decision-making, and can also work with other tools to optimize logistics and pricing.[37]

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6.6 Considerations for Specific Modes

The following section outlines high level trends and challenges that are likely to impact the different freight modes in Wisconsin.

6.6.1 Highway

6.6.1.1 Truck Parking Capacity

A major challenge that still exists is the shortage of truck parking capacity along some key corridors in the state. When legal parking spots fill to capacity some commercial vehicles then resort to parking in places where they are not legally allowed to stop and rest. Such illegal parking and unsafe locations can include highway shoulders, interchange ramps and locally restricted streets. The Federal Truck Parking Safety Improvement Act H.R. 1659 was introduced in the House in 2025 to dedicate $755 million specifically to truck parking projects nationwide.

The House Appropriations Committee's Department of Transportation also introduced the FY27 Appropriations spending bill which would allocate $410 million for projects that specifically include truck parking projects.

Wisconsin has purposely been proactive in including additional truck parking to our SWEFs and Safety Rest Areas during the redesign and update of these facilities. Further information can be found in Section 5.3.2.3.

6.6.2 Railroads

6.6.2.1 Freight Rail Capital Investments

Wisconsin's rail system has been consolidated over history, leading to less than half of the track mileage still existing in the state compared to the early 1900s. Class I railroads have focused their efforts on maintaining existing infrastructure, and only adding track mileage on an as needed basis. Carload weight limits have increased to 286,000 pounds which makes service opportunities to business more challenging for the lines that do not have upgraded infrastructure to handle higher weights.[38] Clearance challenges also continue to be problematic within the state, forcing taller loads down other routes that may not lead through the state.

6.6.2.2 Regional Freight Shipping Patterns

Chicago remains the busiest, and main hub of rail traffic throughout the Midwest. It is estimated that one out of every four freight trains pass through Chicago. Illinois developed the Chicago Region Environmental and Transportation Efficiency (CREATE) program to increase capacity and efficiency of freight trains that pass through the Chicago area.[39] By keeping these freight loads moving, they have managed to reduce idling time and eliminate or reduce delays at rail/highway crossings. So far, the public-private partnership program has accomplished over 70 projects with $5.8 billion invested. By maximizing capacity, and reducing down time, this has estimated to create $31.5 billion in economic benefits. Due to Wisconsin's close proximity to this hub, WisDOT is monitoring and adapting as needed to account for these changing dynamics in rail movement.

6.6.2.3 Precision Scheduled Railroading and Limited Freight Rail Access

Six of the seven largest Class I railroads have implemented precision scheduled railroading (PSR) to schedule train movements.[40] It prioritizes fixed timetables and point to point delivery over the traditional hub and spoke model. This equates to fewer trains that are longer in length. While PSR is more efficient for the railroads as it keeps train cars constantly moving, it has been criticized for reducing the number of stops available to carriers, while also sacrificing safety due to overall length of the trains paired with reduced number of operators per train.

The lack of stops available is becoming increasingly apparent in Wisconsin due to the proximity to the major hubs of Chicago and Minneapolis. Carriers now need to transport to either of these hubs to connect with the major rail lines since these railways no longer stop in Wisconsin but simply pass from one major hub to the next. This also affects the smaller rail lines that service remote areas of the state since these exchange sites become increasingly difficult to

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access. PSR also limits the total number of available rail cars which brings less capacity allowance for any surge in market capacity during seasonal markets such as the fall harvesting season. This then equates to more reliance by these businesses and products on highway movement which is generally more costly, which makes small and midsize businesses more vulnerable due to this business model.

Longer trains equate to longer waiting times or even perpetually blocked at grade highway crossings. Emergency services, schools and community resources can be substantially affected due to these blocked crossings, especially in smaller communities where resources are marginal.

6.6.3 Ports and Waterways

6.6.3.1 Energy Transport via Waterway

While Wisconsin pipelines are a main component of the transportation of petroleum products throughout the state, there is a need to establish an effective contingency plan, should there be a pipeline closure or shutdown. Wisconsin ports and waterways provide a key part of redundancy and resiliency in the transport of petroleum products, especially in the products that are not generally suited for pipeline transport such as asphalt, pitch, and petroleum coke.

6.6.3.2 Inland Rivers and Great Lakes Intermodal

Wisconsin has seen a resurgence of the use of its ports located on the Great Lakes. One of these success stories is the Port Milwaukee.[41] This port offers a unique opportunity of having the port, rail and highway all come together in a convenient location. After being shuttered back in 2012 from lack of volume, the port has fought its way back to become a booming success. Since the reopening of the port again in 2023 it has become a significant intermodal hub for moving various cargo both nationwide and internationally. By expanding into agricultural commodities,[42] the port has better balanced the flow of cargo traffic and has been able to expand due to this. Tonnage has risen 160 percent through March 2026 compared to the same time period in 2025.[43] This growth will help cement the future viability of this port for Wisconsin and the Midwest.

The Duluth-Superior port continues to be a vital part of Great Lakes commodity transportation. Iron Ore, coal and grain continue to make this port a major player in North America. Although total tonnage was down this past year due to recent global market trends, the main highlight continues to be the ease of high, wide and heavy cargo that can move through the port.[44] Nearly half of the 44 ocean going vessels that arrived in port in 2025 utilized this heavy lift/project cargo advantage.

There have also been efforts to use the inland rivers to transport overseas container vessels up and down the waterways. Herculaneum Port in Missouri was recently cleared to redevelop the port into an intermodal hub that could handle the loading and unloading of container vessels from barges traveling on the Mississippi River.[45] This is an interesting development of the good use of the waterways to expand the transport of more goods in the future. Possible developments could reach further northern Mississippi River ports if projects like Herculaneum prove to be successful.

6.6.3.3 Load Line Exemptions and Safe Harbor Distance

The transport of commodities on river barges between Illinois and Wisconsin does exist but is very limited in nature. Only certified routes are allowed for passage on Lake Michigan.[46] The route between Wisconsin and Illinois is between Calumet Harbor, IL and Milwaukee, WI. Other routes do exist originating from Calumet Harbor but go to Indiana and Michigan. No further routes north of Milwaukee are allowed without special permission from the Coast Guard.[47]

These route requests have been historically denied. These strict route guidelines are put in place to ensure safe harbor access. Commodity types and types of vessels that can be used are also very limited to avoid unnecessary exposure should an incident take place.

6.6.3.4 Soo Lock System Expansion

The locks located in Sault Ste. Marie Michigan continue to be rebuilt to replace a lock system that was designed over 50 years ago.[48] By expanding and replacing the existing lock system, the future of this lock will be significant for the resiliency of the Great Lakes system and the Midwest as nearly 100 percent of America's domestic iron ore passes through this area. Construction started in 2020, and the new lock is scheduled to be operational by summer of 2030.[49]

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6.6.4 Aviation

6.6.4.1 Shifting Demand

Air cargo can be delivered quickly and efficiently but air cargo transport is also historically a much more expensive way to transport commodities. It is mainly used when travel time matters, or special handling needs to take place that ground transportation cannot offer. Despite all of this and in lieu of the ever-expanding ground network that FedEx, Amazon, USPS, and UPS have developed, according to the International Air Transportation Association (IATA) air cargo demand has remained surprisingly resilient with air cargo demand growing 10.5 percent year over year with a capacity increase of 2.4 percent year over year for North America.[50] On time cargo still appears to be the main driver while cheaper and less time sensitive cargo is delivered by the ground transport network.

6.6.4.2 Changing Air Cargo Components

Mail volume was at an all-time peak of 213 billion pieces of mail in FFY 2006. Mail volume has been drastically declining ever since reporting in at just 109 billion pieces of mail in FFY 2025, which represents a nearly 50 percent decrease.[51] This is due to many factors such as e-commerce, electronic billing paired with electronic payments, and the rise of email and social media. Air mail still exists though with USPS offering express, priority and international mail.

6.6.4.3 Air Cargo Growth in Wisconsin

Of Wisconsin's eight commercial service airports, all but Eau Claire and La Crosse serve the major integrated carriers (UPS, FedEx, DHL, etc.) . Air cargo out of these two airports is either carried by passenger airlines or is trucked to other major hubs. Large cargo airports in surrounding states coupled with a robust ground transportation network put a lot of pressure on Wisconsin's air cargo network expansion. While Chicago's O'Hare Airport continues to be a main hub for air cargo, flight demand coupled with higher landing fees is pushing air demand to other area large local airports. Rockford and Milwaukee are starting to see higher demand of air cargo transport due to their proximity to the existing hub network of O'Hare; plus, the ability to add flights on demand coupled with lower landing fees. Less traffic congestion and lower fuel and labor costs are also adding to the advantage that these smaller fields have over O'Hare.

Rockford rose in 2026 to be the 12th largest cargo airport in North America. More than 3.4 billion pounds of cargo was recorded passing through the airport in 2025 which equated to a 9 percent increase over the past year.[52] Part of its draw to cargo forwarders is the dedicated runways and ease of scheduling arrivals and departures.

Milwaukee is in the process of expanding air cargo abilities with the Milwaukee Air Cargo Center. The $80 million public-private partnership development is scheduled to be completed in the fall of 2026 which will feature a 330,000 square foot dedicated air cargo building. Coupled with a 10,000-foot runway[53] and its proximity to Milwaukee, Madison and Green Bay, this will make Milwaukee Airport an attractive alternative to O'Hare and Rockford.

6.6.4.4 Air Cargo Regulation

The Federal Aviation Administration (FAA) undertook the Next Generation Air Transport System (NextGen) initiative starting in 2003. The initiative was to systematically modernize and change the National Airspace System. Transformations in navigation, surveillance, automation, communications, information sharing, and weather services were all addressed through NextGen's core mission. Performance Based Navigation (PBN) was at the heart of this transformation. PBN effectively switched the airspace control from archaic ground-based navigation to satellite-based guidance in essence providing greater precision and resilience of airspace navigation. 2025 saw the final deployment of NextGen and what has become a strong foundation for future technological developments to ensure safe, efficient, and strategic traffic flow through the Nation's air space.[54]

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6.6.5 Pipeline

6.6.5.1 Pipeline Maintenance, Replacement, and Decommissioning

In 2012 the West Shore Pipeline that runs from Milwaukee to Green Bay suffered a 54,600-gallon spill of gasoline due to corrosion of the system. The northern section of pipeline was permanently shut down in 2016. Since then, Green Bay has received delivery of fuel through tanker trucks. The pipeline owner is currently exploring a pipeline that would extend through the south part of Milwaukee. This new six-mile section of pipeline would connect to the southern section of the West Shore pipeline that extends down to Illinois. This new section of pipeline would carry fuel products from near Milwaukee Airport out to Jones Island at the port of Milwaukee. The fuel would then be loaded on to barges to be sent up to Green Bay, thus reducing the number of trucks used to transport currently as each barge would replace 500 tanker truck trips.

6.6.5.2 Impacts To Other Freight Modes

WisDOT has a very limited role in the oversight of pipelines and their operators. Our vigilance of keeping abreast of any changes in this mode of transportation concerns the effects that any changes in pipelines might have on other modes of transport. These other modes of transport that might be affected would include rail, truck, and water. Pipelines are highly efficient in the amount of cargo they can transport, and any change of mode has potential to affect congestion, wear and tear on the infrastructure, and increased environmental concerns.

6.6.5.3 Petroleum Market Volatility

Crude oil and petroleum product markets have fluctuated throughout 2026, but there is no evidence those fluctuations have affected crude oil or petroleum product flows transiting Wisconsin so far. While the potential for reduced Canadian crude oil flows to the U.S. has been raised, financial press suggests it is unlikely due to the negative impacts it would cause both countries.[55]

6.6.6 Intermodal

6.6.6.1 Transload of Ocean Containers

Ocean carriers are closely monitoring and managing the inland movement of their ocean containers. The continued placement of the cargo within the ocean carrier-owned container upon its arrival at the port introduces multiple operational and financial exposures. These include, but are not limited to, the assessment of demurrage charges, detention charges, port storage fees, dwell-time penalties, chassis rental costs, and the potential for extended transit durations. Such risks arise from the fact that the transportation timeline is predetermined without full visibility into future port conditions, thereby creating a material and ongoing vulnerability for all parties responsible for the cargo's timely and compliant movement. The intent is for the cargo to be transloaded into domestic containers as quickly as possible. This brings many advantages to the customer; they are able to control when the ocean container is unloaded avoiding demurrage, detention, and dwell penalty fees. Another intention is to be able to use less containers, (ocean containers are 40' and domestic containers can be 53'), and domestic pricing can be controlled from that point forward. Drayage fees from port to the transload facility and actual transload costs do come into play but it is generally the quicker and less expensive option.

6.6.6.2 Temperature-Controlled Intermodal Service

Refrigerated container shipping continues to be a large developing sector of the growing global trade network. According to research, the value of the global cold chain packaging market is expected to grow from $33.7 billion by 2033. This equates to a compound annual growth rate of 13.5 percent between 2026 and 2033. While a large portion of the sector is fresh food including fruits, vegetables, seafood, and processed and frozen meals, one of the primary drivers of this growth is the rapid expansion of biopharmaceuticals which includes vaccines, biologics, insulin, and specialty medicines. This in turn is driving temperature control to be much more stringent on fluctuations thus improving the transportation sector to adopt superior technology to better support the future safety and quality of this transportation.

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7

Network and System Needs

CHAPTER 7 ▪ WISCONSIN STATE FREIGHT PLAN

2027

7. Network and System Needs

Wisconsin is committed to developing a transportation system that is prepared for the future. To do this WisDOT must assess the needs of freight movement based on the current and future demands by:

- Identifying the strengths and challenges of the existing system.
- Focusing on the goals and objectives of the freight system.
- Addressing future freight transportation demands for highways, rail lines, ports, airports, and pipelines.
- Identifying and analyzing future trends and technological advancements outside of the traditional forecasting methods which could impact the future of freight in the state.

7.1 Highway Overview

Highway freight makes up the largest modal share of freight tonnage and value shipped within Wisconsin and the country as a whole. For many freight shippers and receivers, highway freight is the only mode used in their supply chains. WisDOT invests in this system by improving and maintaining roadways, bridge structures, pavement conditions, operations, and capacity. This section includes a summary of network and system preservation, safety, network management and operations, accessibility, and resiliency.

7.1.1 Highway: Network and System Preservation

As mentioned in Section 5.2.1, freight movement by truck on the state's highway system continues to be by far the largest share of the movement of Wisconsin's goods. In 2023 trucks carried approximately 70 percent of the tonnage and 74 percent of the value of all modal shipments to, from, within, and through the state. This equates to over 489 million tons and $620 billion of goods shipped in 2023. WisDOT has spent decades improving roadway conditions for passengers and freight alike by constantly improving bridge structures, pavement conditions, operations, and growing capacity.

7.1.2 Highway: Transportation Safety and Security

Wisconsin's Strategic Highway Safety Plan (SHSP) acknowledges the need for improved safety for large trucks and provides an overview of activities to support this goal. The overarching freight safety needs identified through the analysis within the SHSP include:

- Improving truck safety through inspections and enforcement
- Increasing the availability of truck parking
- Reducing the number of weight restricted bridges particularly on secondary roads
- Increasing safety at railway-highway grade crossings
- Prioritizing safety improvements that address identified segments and intersections
- Improving incident management through better coordination and decision-making
- Leveraging upcoming MAFC research to identify truck crash trends associated with low-clearance structures and intersections, how those trends diverge from passenger vehicle trends, and how targeted mitigation strategies might be implemented

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7.1.3 Highway: Network Management and Operations

The top 25 truck bottlenecks in Wisconsin have been identified with the majority (21) being in Milwaukee County, primarily on I-41 and I-94. Other counties with top 25 state truck bottlenecks include:

- Dane County (3)
- Kenosha (1)

These bottlenecks are along major freight routes that experience routine congestion. Due to the freight movement inefficiencies posed by bottlenecks and the associated costs of delay to the economy as a whole, the need to improve truck bottlenecks has impacts on statewide prosperity and the environment. Resolving these chokepoints is a priority and will require a combination of capacity, operational, and maintenance improvements.

When the department adheres to a schedule to complete a highway construction project, road users can better plan for the impacts. By strictly adhering to these estimated construction timelines and maximizing the deployment of departmental resources, the department can actively reduce work zone delays and improve overall highway network operations.

The department will continue to utilize ITS installations and other tools that provide the Traffic Management Center with the ability to effectively monitor active roadway conditions. This technology facilitates coordination with local agencies and state partners during traffic incidents, helping to improve travel across the network. Furthermore, these efforts enable travelers to make informed decisions by conveying 24/7 real-time updates regarding traffic speeds, highway incidents, construction alterations, and roadway closures via the 511 Wisconsin platform.

7.1.4 Highway: Network Accessibility and Connectivity

Network accessibility and connectivity continue to be a major goal of WisDOT to ensure the ease of movement of freight throughout the state. This is important for present and future economic development, opportunities, and access to regional and national markets for the major metropolitan areas as well as cities, towns, and villages in the rural areas of the state.

WisDOT uses many different approaches to maintain and expand highway network accessibility and connectivity. One of these is through the foundational goals adopted from Connect 2050. This provides a framework for policies and strategies, expanding lane capacity, managing effective bridge access management, applying maintenance, expansion of freight corridors, and adoption of new and emerging roadway and truck technologies.

WisDOT also uses MAPSS measures to help identify and address the needs of the highway system. WisDOT analyzes and improves pavement quality and condition, bridge and structural conditions, condition of signs and traffic markings, and application of proper vegetation control. WisDOT also closely monitors and prioritizes highway congestion and bottlenecks, and travel time reliability including delays and on-time performance. This allows WisDOT to properly identify and plan for future needs of problematic areas that are pinpointed through these metrics.

Finally, WisDOT works with its local governments to provide best practices, strategies, and tools to preserve and improve the network throughout the state. WisDOT helps these local governments to identify and secure State and Federal grant funds to assist these efforts.

7.1.5 Highway: Network Resiliency

The IIJA established the Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Formula Program to help make surface transportation more resilient to natural hazards, including sea level rise, flooding, extreme weather events, and other natural disasters. Activities eligible for funding include resilience planning, resilience improvements, development of community resilience and evacuation routes, and hardening at-risk coastal infrastructure. The PROTECT Program includes both formula funding distributed to States and competitive grants.[1]

WisDOT utilized PROTECT for development of the Wisconsin Resilience Improvement Plan (WRIP). WRIP provides the framework for immediate and long-range resiliency building planning activities and investments of the State. It demonstrates a systemic approach across modes, geographic regions, and critical interdependent sectors.

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WRIP incorporates a risk-based assessment of the vulnerabilities of transportation assets and systems to weather and natural disasters. This assessment draws from the WisDOT Transportation Asset Management Plan (TAMP), the Wisconsin Emergency Management Natural Hazard Mitigation Plan (NHMP), and the WisDOT State Freight Plan by combining system needs projections with assessments of the vulnerability and potential scale of natural disasters. WisDOT is using the WRIP to build upon previous resilience improvements that cover winter maintenance, bridge design standards, identification of high impact locations, alternate route designations, training for responding agencies, use of technology to monitor and inform of incidents, and more. In Wisconsin, flooding is one of the most frequent events that disrupts the highway system. Locations that experience regular impacts from flooding are assessed and potential improvements are identified. Excessive cold and winter storms and excessive heat and drought are the other two hazards noted as growing in prevalence, impact, and fatalities.

WRIP integrates with Connect 2050 and the other WisDOT family of plans. The entire Resilience Improvement Plan can be viewed on www.wisdotplans.gov.

7.1.6 Highway: Mode-Specific Needs

As shown, freight shippers and receivers rely primarily on trucks using the state's highway system. WisDOT is committed to enhancing roadway conditions for passengers and freight alike by improving structures, pavement conditions, operations, and capacity.

To help Wisconsin develop a transportation system prepared for the future, it is important to assess needs for freight movement based on current and future freight demands by identifying the strengths and challenges of the existing system. It is important to focus on freight system goals and objectives while also considering emerging trends and technological advancements outside traditional forecasting methods, but which could impact the future of freight in the state.

Wisconsin Highway needs include:

- Prioritizing identified segmental and intersection related safety improvements
- Improving truck safety through inspections and enforcement
- Addressing identified bottlenecks that experience routine congestion
- Utilizing ITS installations to monitor active roadway conditions
- Increasing the availability of truck parking

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7.2 Railroads Overview

Rail freight is a crucial component of Wisconsin's freight system, particularly for the movement of bulk commodities. Multiple rail trends at a national level have impacted the movement of rail through the state including the continued adoption of the precision scheduled railroading model which results in longer trains travelling longer distances. Rail safety trends have also shown a plateauing of accidents/incidents over the past 10 years despite continued investment in rail crossing safety infrastructure. This section describes how WisDOT supports railroads in the state through the railroad grant and loan programs. It also summarizes efforts to support rail corridor preservation, a review of at-grade crossing incidents and trespassing incidents, and a review of known freight trail bottlenecks and issues related to network resiliency.

7.2.1 Railroads: Network and System Preservation

7.2.1.1 State Railroad Grant and Loan Programs

Wisconsin has steadfastly supported railroads since 1977, when the legislature created the first rail assistance program. It was designed to help communities and shippers preserve freight rail service during an era when widespread railroad bankruptcies and line abandonments threatened the availability of rail service in Wisconsin. Initially, the program was limited to grants to local governments because of constitutional restrictions on state assistance to railroads. But in the 1990s, Wisconsin voters approved a constitutional amendment to include railroads on the list of eligible state money recipients.

In 1992, the original rail assistance grant program was replaced by the current Freight Railroad Preservation Program (FRPP), pursuant to Wis. Stats. s. 85.08, which provides funding assistance to local units of government, industries, and railroads for the purpose of preserving essential rail lines and rehabilitating them following purchase. FRPP provides funding for up to 80 percent of the total cost of the project:

- To purchase abandoned rail lines in an effort to continue freight service, or for the preservation of the opportunity for future rail service; or
- To rehabilitate railroad tracks and/or bridges.

Since 1980, under both the original rail assistance funding program and FRPP, more than $326 million in grants have been awarded for rail acquisition and rehabilitation projects.

Also in 1992, and pursuant to Wis. Stats. s. 85.08, the Freight Railroad Infrastructure Improvement Program (FRIIP) was created. FRIIP is a loan program that provides 2 percent interest loans to be paid back over 10 years, and allows for funding flexibility so the state can encourage a broader array of improvements to the rail system, particularly on privately owned lines. It also provides funding for other rail-related projects such as loading and trans-loading facilities.

FRIIP provides up to 100 percent loans for rail projects that:

- Connect an industry to the national railroad system
- Make improvements to enhance transportation efficiency, safety, and intermodal freight movement
- Accomplish line rehabilitation
- Develop the economy

Since 1992, more than $155 million in FRIIP loans have been awarded.

Rails-to-Trails and Corridor Preservation

This program offers a unique solution to the preservation of railroad corridors. If service cannot be preserved, the department works with the Wisconsin Department of Natural Resources (DNR) to preserve the rail corridor for future rail transportation use by using the 1983 National Trails System Act (NTSA). The NTSA gives interested parties the opportunity to negotiate voluntary agreements with railroads to use railroad corridors for trails in the interim. Since 1987, railroads in the state have submitted over 40 applications to the STB to abandon more than 400 miles of rail lines. Over 70 percent of the miles have been preserved or are in negotiations to be preserved for future transportation use. Many of the corridors are used as trails in the interim. Lines preserved under the NTSA are not abandoned. These lines retain their character as rail corridors and may be reactivated in the future.

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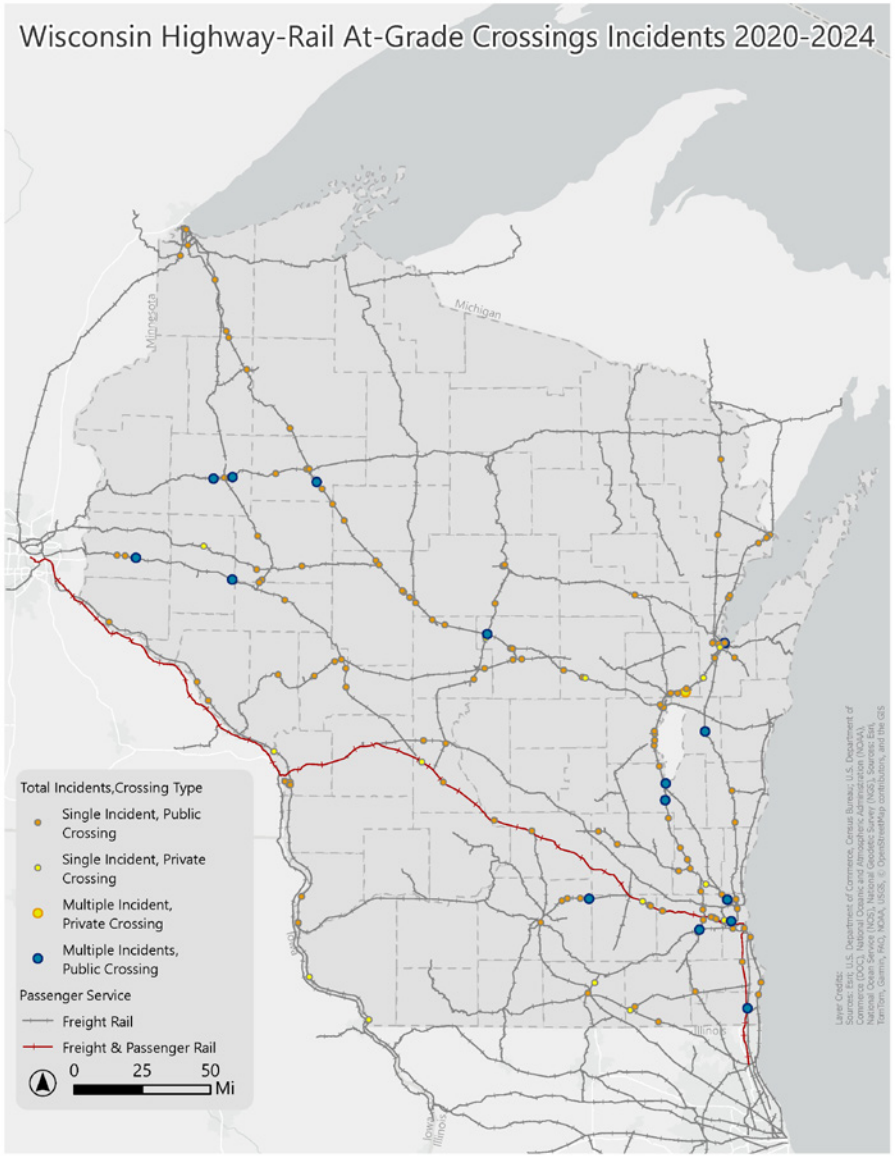
7.2.2 Railroads: Transportation Safety and Security

7.2.2.1 Wisconsin State Action Plan (SAP)

In 2022, WisDOT developed the Wisconsin Highway-Railway Grade Crossing State Action Plan (SAP) in accordance with Federal Railroad Administration (FRA) guidance. The SAP provided an opportunity to conduct a systematic review of highway-rail grade crossings from the perspective of safety risk identification, prioritization, identification of safety solutions, and development of strategic actions to improve highway-rail grade crossing safety.

According to FRA Highway-Railroad Incident Data, 35 collisions occurred at public crossings in 2020. Aside from slight upticks in 2013 and 2019, there was a consistent decline between 2011 and 2020. This contrasts with the national moving average which remained steady over that ten-year period. The locations of highway-rail grade crossing incidents between 2020-2024 are shown in Figure 7-1.

Figure 7-1. Highway-Rail At-Grade Crossings Incidents (2020-2024)



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WisDOT will continue to work with OCR and private railroad companies to identify potential rail crossing safety improvements such as signals, gates, grade separations, or closing crossings. In addition, for rail corridors with intercity passenger rail service, WisDOT will continue to work with OCR to discourage new at-grade crossings along these corridors. WisDOT will work to equip federally designated high-speed rail corridor crossings with appropriate warning devices.

7.2.2.2 Trespassing

According to the FRA, trespassing is the leading cause of rail-related deaths in the United States. Nationally, more than 500 trespass fatalities occur each year. The number of trespassing occurrences on railroad property each year far exceeds the number of fatalities, increasing the likelihood of accidents.

It is illegal to access private railroad property from anywhere other than a designated pedestrian or roadway crossing. Trespassers are most often pedestrians who walk across or along railroad tracks as a shortcut to another destination.[2]

In Wisconsin, there were 32 reported trespassing incidents and 16 fatalities during the four-year period between 2022 and 2025, which does not include data for suicides.[3]

Railroads, local jurisdictions, and state and federal agencies rely on a variety of measures to prevent and deter trespassing. Education is one measure. The FRA sponsors and carries out public education related to the dangers of trespassing on rail facilities. These efforts are supported by Wisconsin Operation Lifesaver (OLI), a non-profit safety education and awareness program. Railroad police departments play a crucial role in monitoring trespassing. These departments work closely with public enforcement agencies. Fencing, lighting, gates, and barricades can be installed to discourage trespassing. WisDOT will continue to work with the OCR and private railroad companies to discourage trespassing by installing fencing where appropriate.

To learn more about railroad safety efforts at highway-rail grade crossings, visit the FRA's Trespass Prevention and Highway-Rail Grade Crossing Safety and Trespass Prevention pages.

7.2.3 Railroads: Network Management and Operations

7.2.3.1 Freight Rail Performance

After highways, railroads carry the second highest amount of freight tonnage in Wisconsin, highlighting the need to identify major freight rail mobility and safety issues.

Rail Freight Bottlenecks

Descriptions of known freight rail bottlenecks and mobility issues on Wisconsin's rail system are shown in Table 7-1. These were identified through coordination with the railroads.

In 2026, WisDOT completed the Merrimac Bridge (Reedsburg Subdivision) project, fixing one of the previously identified bottlenecks. This bridge was limited to 263,000-pound carloads at 10 mph, but can now carry 286,000-pound carloads at 25 mph.

Table 7-1. Freight Rail Bottlenecks

RAILROAD	DESCRIPTION
WSOR/CP	WSOR not able to access Port Milwaukee without trackage rights over CP.
UP	UP does not have sufficient clearance under eleven bridges through Milwaukee for use by double-stack container cars.
WSOR/UP	WSOR must use UP-owned track segment (and await UP dispatching) in Janesville to move between the Waukesha or Madison subdivisions and the Monroe Subdivision, Fox Lake Subdivision, and Chicago.
WSOR	WSOR limited to ten trains per week (each way) over Metra track to interchange with other railroads at Belt Railway yard at Clearing, IL (Chicago).

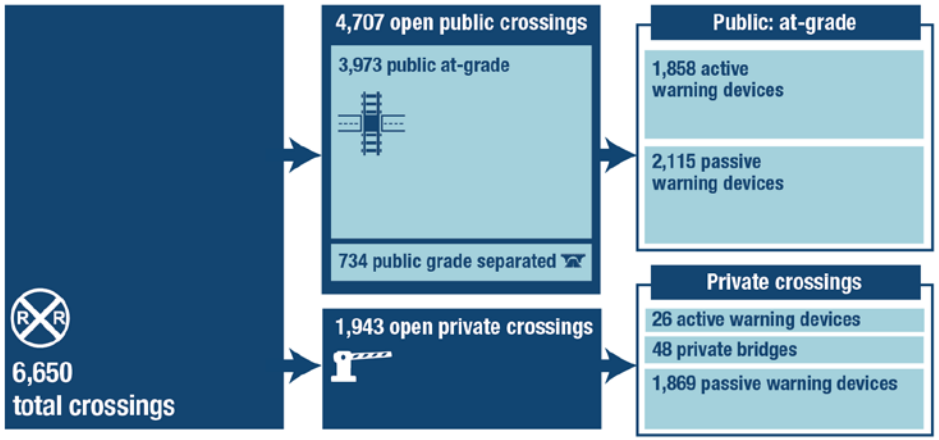
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7.2.4 Railroads: Network Accessibility and Connectivity

7.2.4.1 Highway-Rail Crossings

More than 6,600 open highway-rail crossings are located in Wisconsin, as shown in Figure 7-2. These crossings can be either at-grade or grade-separated and either publicly or privately owned. Public at-grade crossings make up nearly 60 percent of Wisconsin's highway-rail crossings. At-grade crossings are equipped with warning devices to alert vehicles and pedestrians of the presence of a rail crossing. These warning devices may be either passive or active. Passive devices (e.g., signs, markings, etc.) do not change whereas active devices (e.g., lights, gates, bells, etc.) activate as a train approaches. WisDOT's rail crossing data is maintained in the Railroad Crossing Information System (RCIS). The data is used to analyze the physical characteristics of rail crossings. WisDOT uses this database as a tool to assist decision makers in prioritizing crossing improvements. WisDOT and local governments regularly improve highway-rail grade crossings as part of roadway projects. Any project that crosses a rail line or ends near a rail line must include a review of whether any crossing improvements are needed.

Figure 7-2. Railroad Crossings in Wisconsin



7.2.5 Railroads: Network Resiliency

Railroad resiliency refers to the capacity for the system to anticipate, absorb, recover from, and adapt to disruptive events. A resilient rail network minimizes downtime and maintains operations during hazards like severe weather or supply chain disruptions. Just as a safe, efficient, and reliable highway system requires routine monitoring, maintenance and preservation to meet established performance thresholds and to identify and reduce freight bottlenecks, so, too, does the railroad system.

According to estimates from the Freight Analysis Framework (FAF), rail freight volumes are expected to increase to 8.2 trillion ton-miles by 2050, which would be a 58 percent increase from the 2020 figures. This projected growth will require the freight network capacity to grow significantly. At the same time, supply chain disruptions related to natural disasters and extreme weather are also anticipated to increase over this period, causing ripple effects within the ecosystem. This increased frequency in world weather events warrants a more focused approach to create a resilient, multimodal ecosystem.

Ensuring modal choice for shippers is imperative to support supply chain resiliency while also enhancing modal efficiency. Commercial shippers make important business decisions based on the tradeoff between time and cost of each transportation mode and the value of their products. Infrastructure limitations and transportation bottlenecks reduce shipper choice and can also create friction between modes, further constricting the supply chain. As freight volumes continue to grow, the railroad system must adapt to more quickly respond to modal needs.

7.2.6 Railroads: Mode-Specific Needs

Freight rail service continues to face challenges in Wisconsin. Precision Scheduled Railroading (PSR) is still preferred by the larger Class I lines, which requires longer trains with fewer intermediate stops. While this practice allows the railroad companies to achieve lower operating ratios, it means the trains mostly pass through the state, which was considered previously in this Plan when modeling overhead freight. This provides little to no economic benefit to Wisconsin.

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Additionally, in communities along the active corridors, longer trains extend delays at highway-rail crossings, while rail bottlenecks develop on corridors without adequate passing sidings or near switching yards.

Wisconsin shippers are typically small to medium sized businesses. Even along the most active rail corridors, smaller shippers in the state struggle to gain and maintain access to rail service, due to logistics and cost challenges. Smaller shippers require flexibility to work on a fraction of the scale comparatively; this is usually not compatible with the Class I business model. Often unable to meet the quantity and distance demands of the Class I lines and PSR, they must instead use trucks to transport their goods out of state to larger rail terminals or use trucks for the entire movement from shipper to receiver.

As detailed in WisDOT's Intermodal Freight in Wisconsin - 2025 Update report, the concept of intermodal blends multiple modes of transportation to move goods around the globe in the most efficient and cost-effective manner and helps reduce greenhouse gas emissions. However, with limited access to rail, taking advantage of solutions such as intermodal becomes next to impossible for smaller shippers.

Regional railroads in Wisconsin help to bridge the service gap created by PSR, offering unique solutions for the small and medium-sized shippers located on or near their lines. Regional railroads offer support for smaller-scale and shorter distance movements and can tailor their services to meet customer needs.

Through the Freight Railroad Preservation Program and Freight Rail Infrastructure Improvement Program, WisDOT helps communities and shippers by providing grants and loans to preserve freight rail service within the state.

Additionally, WisDOT supports the integration of intermodal transportation options within Wisconsin's supply chain ecosystem, which is just one approach that would enhance supply chain redundancy and resiliency, while simultaneously reducing emissions, mitigating bottlenecks, and reducing costs for shippers simply by harmonizing multiple modes of transportation.

Wisconsin's rail needs include:

- Ensuring local business access to rail service, especially in rural communities
- Improving at-grade crossing safety
- Addressing rail line and bridge weight restrictions
- Increasing vertical and horizontal clearances, where warranted
- Resolving bottlenecks

7.3 Ports and Waterways Overview

Wisconsin's commercial maritime ports provide essential connections to domestic and international markets, supporting industries, manufacturers, agricultural producers, and local communities. Maritime freight access in Wisconsin is served by both the Great Lakes and St. Lawrence Seaway and the Mississippi River system, providing important resources for Wisconsin's integrated, multimodal transportation system. This section describes how WisDOT invests in maritime freight through Harbor Assistance Program Grants. It also summarizes the unique needs of maritime infrastructure including the need for dredging, lock and dam maintenance, and the last-mile connections between ports and other freight modes.

7.3.1 Ports and Waterways: Network and System Preservation

7.3.1.1 Harbor Assistance Program Grants

Wisconsin has a long-standing commitment to preserve and improve its 29 commercial ports and harbors through the Harbor Assistance Program (HAP). Created by the legislature in 1979, HAP provides state funding to help port communities along the Great Lakes and Mississippi River maintain and improve facilities that support maritime commerce.

HAP provides funding assistance to eligible public, Tribal, and private entities for projects that preserve and enhance port and harbor infrastructure and support the continued movement of freight by water. From 1980–2026,

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WisDOT contributed nearly $240 million in HAP funds for 166 port projects.

HAP provides funding for projects that:

- Grow Wisconsin's maritime sector, supply chains, and economies.
- Maintain and improve critical port infrastructure and navigation for commercial waterway transportation.
- Ensure safe, efficient, and reliable cargo movement.

Eligible projects may include rehabilitation, reconstruction, or improvements to docks, bulkheads, dredging, and other facilities needed to support commercial freight movement. These investments help maintain reliable connections between Wisconsin's industries and agricultural producers and domestic and global markets.

The maritime freight network also depends on accessible navigation channels, cargo-handling facilities, and intermodal roadway and rail connections. Because responsibility for these assets is shared among local, state, federal, and private-sector partners, continued coordination and investment are essential to maintaining a reliable network.

WisDOT will continue working with partners to identify preservation needs and advance investments in port and harbor infrastructure, navigation access, and highway and rail connections. These investments will help preserve freight capacity and reliability, reduce landside congestion, and maintain Wisconsin's connections to domestic and global markets.

7.3.2 Ports and Waterways: Transportation Safety and Security

Wisconsin's maritime transportation system operates in a complex environment with competing demands at times, including commercial navigation, industrial activity, recreational boating, environmental stewardship, and interagency coordination across the Great Lakes–St. Lawrence Seaway System and the Upper Mississippi River System. Ensuring the safety of all waterway users, as well as the security and reliability of maritime operations is essential to maintaining uninterrupted freight movement, protecting critical infrastructure, and supporting the long-term resilience of Wisconsin's ports and waterways.

The U.S. Coast Guard (USCG) provides security and patrols along the Upper Mississippi River and Great Lakes. In Wisconsin, the Coast Guard operates eight Great Lakes stations and one station on the Mississippi River. While the USCG has primary responsibilities and jurisdictions, the Wisconsin Department of Natural Resources, Wisconsin National Guard, Wisconsin Homeland Security Council, and local law enforcement agencies also support the safety and security of these waterways. Wisconsin Emergency Management (WEM) coordinates resource and asset allocations needed to respond to complex maritime incidents, including weather disasters, allowing local emergency managers to deploy resources as needed.

Maritime transportation provides the safest option of moving freight with relatively low public exposure compared with highways and railroads. National data show that trucks account for the vast majority of serious accidents and fatalities compared to maritime and rails to a lesser extent.[4]

7.3.3 Ports and Waterways: Network Management and Operations

7.3.3.1 Roadway and Rail Connections to Ports

Efficient freight movement depends not only on port facilities themselves, but also on the highway and rail infrastructure connecting ports to regional and national freight networks. Roads serving Wisconsin's commercial ports provide essential first- and last-mile freight connections between marine terminals, highways, railroads, pipelines, distribution centers, and industrial facilities. Although many of these connector routes are part of the National Highway System because they provide access to significant freight facilities, they are frequently owned and maintained by local governments and leased to private operators.

Port connector roads often accommodate heavy truck traffic, oversize and overweight (OSOW) loads, and specialized freight movements that place demands on infrastructure beyond typical passenger travel. Limited turning radii, bridge weight restrictions, vertical clearance constraints, and aging pavement conditions can reduce freight efficiency and increase transportation costs by requiring longer routes or limiting direct terminal access. WisDOT continues to collaborate with local governments, ports, regional planning

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organizations, railroads, and private industry to identify and address first- and last-mile freight infrastructure needs that improve connectivity between ports and the broader multimodal transportation system. Maintaining and improving these connections supports supply chain flexibility and strengthens the competitiveness of Wisconsin's commercial ports.

Great Lakes–St. Lawrence Seaway System

Wisconsin's Great Lakes ports are part of the Great Lakes–St. Lawrence Seaway System, one of North America's most important multimodal freight corridors. The system provides ocean-going access between the Great Lakes and the Atlantic Ocean through a series of locks, navigation channels, and connecting waterways extending from the Gulf of St. Lawrence to western Lake Superior. Together with the Welland Canal and the Soo Locks, the system enables the movement of domestic and international cargo throughout the five Great Lakes. See the Great Lakes St. Lawrence Seaway System website for additional information, including a map showing vessel traffic locations.

Upper Mississippi River System

The Upper Mississippi River serves as Wisconsin's western border and a nationally significant inland waterway extending from the head of navigation at Minneapolis, Minnesota, to the confluence of the Mississippi and Ohio Rivers at Cairo, Illinois. Wisconsin has three commercial ports on the Mississippi River—Cassville, La Crosse, and Prairie du Chien—supporting agricultural, industrial, and bulk commodity movements throughout the Midwest and Gulf Coast regions.

The system includes a federally maintained nine-foot navigation channel and a series of locks and dams that support commercial navigation, flood management, recreation, hydropower generation, and ecosystem stewardship. Downstream connections to the Illinois Waterway and Gulf Coast ports provide access to domestic and international markets and an important transportation alternative for bulk commodities and other freight, as shown in Figure 5-13.

The federally designated M-35 Marine Highway Corridor between Minneapolis, Minnesota, and St. Louis, Missouri recognizes the strategic importance of this inland waterway network. This designation, cosponsored by WisDOT, supports planning for an integrated multimodal freight system. WisDOT continues to work with the Upper Mississippi River Basin Association—representing Iowa, Illinois, Minnesota, Missouri, and Wisconsin—to improve navigation reliability, enhance system efficiency, and support long-term investment in this nationally significant corridor.

7.3.4 Ports and Waterways: Network Accessibility and Connectivity

Wisconsin's maritime transportation system relies on a diverse network of ports, terminals, navigation channels, locks and dams, harbor structures, docks, breakwaters, rail facilities, and highway connections that together support safe and efficient freight movement. Maintaining these assets is essential to preserve supply chain reliability, support economic competitiveness, and ensure dependable access to domestic and global markets.

While many components continue to perform effectively, much of the supporting infrastructure requires ongoing maintenance, rehabilitation, or modernization. Scheduled maintenance, emergency repairs, mechanical failures, flooding, drought, and seasonal navigation closures can all affect system performance and create cascading delays across regional and national supply chains. Water level variability is an increasingly important operational factor, influencing vessel loading, navigation efficiency, and cargo capacity under both high- and low-water conditions.

The condition of roadway and rail infrastructure serving Wisconsin's commercial ports also directly influences maritime freight performance.

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7.3.5 Ports and Waterways: Network Resiliency

7.3.5.1 Great Lakes–St. Lawrence Seaway System

The condition and performance of Wisconsin's Great Lakes port assets are influenced by maintenance needs, fluctuating water levels, flooding, freeze-thaw cycles, severe storms, ice conditions, coastal erosion, and the corrosive marine environment. The U.S. Army Corps of Engineers (USACE) maintains federally authorized navigation channels, while state, local, and private partners maintain much of the waterway connections to the federal navigation channel as well as landside infrastructure supporting cargo operations. USACE also operates and maintains the four parallel locks at Soo Locks connecting Lake Superior to Lake Huron. The Great Lakes St. Lawrence Seaway Development Corporation operates and maintains the remaining two U.S.-owned locks in Massena, New York.

USACE maintenance needs often exceed available federal funding for dredging of federal navigation channels, lock and dam maintenance, and other maritime facilities. The backlog in critical infrastructure maintenance investment contributes to delays, higher costs, and supply chain reliability challenges.

7.3.5.2 Upper Mississippi River and Illinois Waterway System

Wisconsin's commercial river ports rely on the federally maintained Upper Mississippi River navigation system, including locks, dams, and navigation channels supporting freight movement between the Upper Midwest, Gulf Coast ports, and international markets. Much of this infrastructure was constructed in the 1930s and continues to operate beyond its original design, despite ongoing maintenance and periodic rehabilitation. Table 5-7 identifies original construction dates and most recent major rehabilitation activities.

Commercial navigation through the Illinois Waterway also faces operational constraints in locations where obsolete low-clearance rail bridges restrict vessel movements and limit flexibility for modern barge configurations.

7.3.6 Ports and Waterways: Mode-Specific Needs

Maritime transportation is an essential component of Wisconsin's multimodal freight system and a key contributor to the state's economic competitiveness. The Great Lakes–St. Lawrence Seaway System, Marine Highway Corridor, Inland Waterway System, and Wisconsin's commercial ports connect the state's industries, manufacturers, and agricultural producers to domestic and global markets. These maritime assets support the efficient movement of bulk commodities, agricultural products, project cargo, and emerging containerized freight while providing supply chain flexibility, reducing pressure on highway and rail corridors, and increasing overall freight system resiliency.

In addition to supporting freight movement statewide, Wisconsin's smaller commercial ports, harbors, and ferry systems also play critical roles in regional economic development, tourism, and transportation access for coastal and island communities.

As supply chains evolve and freight demand grows, Wisconsin's maritime transportation system must continue to modernize and adapt to changing market conditions. Stakeholders identified infrastructure preservation, intermodal connectivity, operational efficiency, resiliency, workforce development, and technology adoption as key priorities. Maintaining and modernizing locks, dams, ports, docks, channels, and harbor infrastructure remains a foundational need to ensure the safe, reliable, and efficient movement of freight throughout the Great Lakes and Inland Waterway Systems.

Additional needs identified by stakeholders include:

- Improved intermodal connectivity between ports, highways, railroads, pipelines, and distribution facilities.
- Enhanced first- and last-mile freight access, including terminal access roads, transloading facilities, and oversize/overweight freight routes.
- Modernized multi-purpose docks, terminals, and multi-commodity cargo facilities.
- Expanded cargo handling equipment, warehousing, cold storage, and rail-served industrial development near ports.

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- Increased resiliency planning to address fluctuating water levels, severe weather events, seasonal navigation limitations, supply chain disruptions, and cybersecurity risks.
- Greater adoption of freight technology, shipment visibility systems, and shared freight data standards.
- Workforce recruitment, retention, and training to support an aging workforce and evolving maritime, logistics, and manufacturing industries.
- Assistance for small ports and terminal operators adapting to changing commodity markets and operational technologies.
- Electrical capacity upgrades and infrastructure improvements needed to support cleaner fuels, electrification, and reduced emissions.
- Expanded containerized freight movement and short-sea shipping throughout the Great Lakes–St. Lawrence region to diversify cargo, leverage underutilized port capacity, improve supply chain resiliency, and strengthen connections to domestic and international markets.
- Development of emerging technologies, including smart logistics systems, automation, and alternative marine fuels to improve operational efficiency, environmental performance, and system resilience.

As freight demand and supply chain pressures continue to evolve, Wisconsin's ports and harbors will play an increasingly important role as integrated logistics, manufacturing, energy, and economic development hubs. Continued coordination among public- and private-sector partners will be critical to ensure Wisconsin's maritime transportation system remains safe, reliable, resilient, sustainable, and economically competitive within regional, state, national, and global freight networks.

7.4 Aviation Overview

Air cargo is primarily used for the transport of high-value, low-weight cargo, often under time-sensitive shipping requirements. This section highlights WisDOT's role in supporting airport infrastructure, discusses air transportation safety and security, and accessibility and network resiliency. It also includes a summary of trends and issues such as the development of prototype drone freight delivery projects.

7.4.1 Aviation: Network and System Preservation

The WisDOT Bureau of Aeronautics (BOA) performs limited but important roles relative to air freight, including several that support Wisconsin air cargo facilities. These include assisting with funding airport infrastructure through the Airport Improvement Program. Improvements may include runway construction and reconstruction, land acquisition, navigational aids, and lighting. The BOA also provides technical assistance and standards guidance for airport sponsors, coordinates with aviation stakeholders to connect airport sponsors and others in the aviation industry, and supports emerging aviation technology.

7.4.2 Aviation: Transportation Safety and Security

The United States Department of Homeland Security's Transportation Safety Agency (TSA) is a major influence guiding the policy of air cargo safety and security. The TSA has a strict policy on how outgoing cargo is stored at its point of origin, requiring that the cargo be sealed before it is shipped via air. This has led to commercial airports in Wisconsin using an increasing variety of technologies to screen outgoing and incoming cargo. Many larger commercial airports also have a significant law enforcement presence enforcing this security policy, including local county sheriffs, customs agents, and private security companies.

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7.4.3 Aviation: Network Management and Operations

The BOA also assists the air cargo sector by documenting the economic impact of air cargo through statewide studies and planning. These studies can highlight the need of infrastructure projects that support air cargo operations through forecasting demand of future freight needs. As of 2026, BOA was in the process of refreshing its Wisconsin Aviation System Plan (WASP), last updated in 2015. The refreshed version will provide an assessment of the economic impact of airports, including air cargo operations.

Figure 7-3. UrbanLink Hybrid-Electric eVTOL Cargo Drone



Source: UrbanLink

7.4.4 Aviation: Network Accessibility and Connectivity

Further, the BOA supports emerging aviation technology such as Advanced Air Mobility (AAM). This equipment transports people and property using aircraft equipped with advanced technologies, including electric aircraft or electric vertical take-off and landing aircraft (eVTOL), in a controlled and uncontrolled airspace. The FAA has selected 8 pilot programs, spanning 26 states, to operationally test different versions and functions of these aircraft, including autonomous flight technologies. Such functions include urban air taxi services, regional passenger transportation, cargo and logistics networks, emergency medical response operations, and offshore and energy-sector transportation. Given this versatility, AAM may offer opportunities for extending air cargo operations and other services across Wisconsin. National AAM policy was adopted in December 2025; as of April 2026, approximately 20 states have completed a study or currently have a study ongoing. The BOA will begin a Wisconsin-specific AAM study in summer 2026.

7.4.5 Aviation: Network Resiliency

As discussed earlier in Section 5.3.1.4 about the new air cargo terminal at Milwaukee Mitchell International Airport, projected operating volumes show the facility initially leaning toward export-focused traffic. The facility would serve Asia and Europe with two to three flights per week to each location. Developers project 35 to 60 million pounds of air cargo exports and 30 to 45 million pounds of imports in 2029. Those volumes would increase to 80 to 105 million pounds of exports and 60 to 85 million pounds of imports by 2032. These volumes would reflect 250 to 400 annual import and export flights by 2029 and 500 to 600 annual import and export flights by 2032. At full operation, the Milwaukee facility is projected to directly employ 150 to 300 people.

Figure 7-4. New Milwaukee Air Cargo Facility



Source: MACC (Milwaukee Air Cargo Center)

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Among the key considerations by project developers were the large number of international manufacturing companies with operations in southern and eastern Wisconsin, including GE Health Care, Komatsu, Generac, Rockwell Automation, Badger Meter, Johnson Controls, and Kohler. Other targeted sectors include data centers and pharmaceuticals and other cold chain shipping. Another consideration is that Milwaukee is already serving as a diversion airport to O'Hare during bad weather or extreme congestion; in recent years, more than 300 aircraft per year were diverted from O'Hare to Milwaukee. Further, the road that directly connects this air cargo terminal to I-94, College Avenue, was upgraded and expanded in recent years to allow for additional freight traffic.[5]

7.4.6 Aviation: Mode-Specific Needs

Aircraft generally move high-value, low-weight cargo. These time-sensitive shipments have no practical alternative mode, so their operational sustainability is key to those that rely on them and pose as a barrier for those communities with limited air cargo access. Recently emerging technologies for regional and local deliveries by air have shown promise for urban package deliveries, and electric aircraft are undergoing testing for regional air package networks by companies such as UPS. These trends present unique opportunities and needs for the state. Wisconsin's air cargo needs include:

- Improving short- and long-distance connections between urban and rural areas and air cargo facilities
- Assessing air cargo facilities capabilities to accommodate changes in technology, security, and handling of larger cargo
- Reviewing state regulations and aligning strategies for UAS cargo delivery deployment

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7.5 Pipelines Overview

In Wisconsin in 2025:

- 80,000+ miles of pipeline transported nearly 44 million tons of natural gas, petroleum product, and other chemicals, valued at $8.7 billion.
- Materials carried included crude oil, natural gas, propane, gasoline, petroleum products, and basic chemicals.

Pipeline commodities are a key economic input into Wisconsin's economy. Pipelines are the preferred method to transport large volumes of liquids and gases over longer distances, due in part to lower costs relative to rail or trucking.

7.5.1 Pipelines: Transportation Safety and Security

Pipeline Incidents are defined by the Pipeline and Hazardous Safety Administration (PHMSA) as "any unintentional release of gas, crude oil, or hazardous liquid from a pipeline system that results in serious consequences, significant property damage, or operational emergencies." The property damage threshold to be reported is $153,000 for gas pipelines and $50,000 for liquid pipelines.[6] As seen in Table 7-2, Wisconsin's pipeline network suffered no major incidents that resulted in serious injury or fatality since the last published Freight Plan. The most recent five-year average cost of Wisconsin pipeline incidents is $881,931, compared with a twenty-year average of $4,257,157. This lower recent average coincides with the absence of any major incidents exceeding $10 million since 2018.

Table 7-2. Wisconsin Pipeline Incidents (2021-2025)

YEAR	INCIDENTS	FATALITIES	INJURIES	TOTAL COST AS REPORTED
2021	3	0	0	$1,023,084
2022	3	0	0	$360,614
2023	2	0	0	$291,657
2024	4	0	0	$1,476,300
2025	6	0	0	$1,257,999

Source: U.S. DOT, Pipeline and Hazardous Materials Safety Administration, 2026

7.5.2 Pipelines: Network Management and Operations

Pipelines carry substantial amounts of commodities, making them relevant to WisDOT's State Freight Plan. But unlike the other modes presented in this document, WisDOT is not the primary regulating authority for pipelines. Because pipelines are often interstate infrastructure, pipeline safety is regulated by the federal government and state agencies are responsible for regulating, inspecting, and enforcement of pipelines within state boundaries. Interstate pipelines are regulated by the PHMSA.[7] Both rural and interstate pipeline inspections in Wisconsin are the responsibility of the Pipeline Safety Program at the Public Service Commission of Wisconsin (PSC).

7.5.3 Pipelines: WisDOT Responsibilities

WisDOT's role in preserving pipelines, and providing accessibility and connectivity to them, is limited. The responsibility of preservation and maintenance of pipelines lies with private sector companies. In Wisconsin, the PSC is responsible for working with private sector companies regarding accessibility and connectivity. WisDOT identifies potential intersections between pipelines relative to construction projects to ensure construction personnel are aware of the pipelines' locations, and to ensure on-site personnel have access to the equipment needed to respond to an incident, should it occur during construction.

From a resiliency standpoint, while WisDOT does not decide where pipelines should be placed, WisDOT does allow pipelines on state-owned Right of Way if the use will not negatively impact the operation and maintenance of the roadway, the use is legal at a local, state, and federal level, and the use will not make future construction more difficult or costly. This offers companies additional flexibility in the siting of pipelines. In the event of a pipeline failure, WisDOT aids in overall energy resilience by coordinating and supporting the movement of needed energy inputs, including by ensuring vehicles with weight or hours of service waivers are able to travel throughout the state.

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8

Freight Investment Implementation Plan

CHAPTER 8 ▪ WISCONSIN STATE FREIGHT PLAN

2027

8. Freight Investment Implementation Plan

Budget Process

Wisconsin DOT's annual budget is set biennially. The 2025-2027 Biennial Budget was authorized by Wisconsin Act 15 in 2025. Funding beyond the current biennial budget is held constant (adjusted for inflation) to account for future project expenditures through the Statewide Transportation Improvement Program (STIP), except where legislative action impacts revenue or programming.[1]

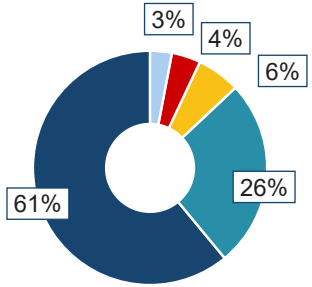
8.1 Freight Project Funding

8.1.1 Transportation Funding Sources

Funding for Wisconsin's transportation system comes from several sources as seen in Figure 8-1.

Figure 8-1. Wisconsin's Funding Sources by Percentage

SOURCE
State Funds
Federal Funds
Bond Funds
General Purpose Revenue
Other Funds *(program/local revenue)*



8.1.2 Federal Transportation Funding

Federal funds make up over a quarter (26 percent), or over $2.32 billion, of Wisconsin's transportation dollars. These funds are governed by federal reauthorization legislation, currently the Infrastructure Investment and Jobs Act (IIJA), which provides significant funding for roadways, bridges, and other major projects. The IIJA includes a five-year reauthorization of $273.1 billion in federal-aid highway formula funding for states. Wisconsin's apportionment under the IIJA can be seen in Table 8-1.

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The law includes a total of $40 billion in funding that is dedicated to bridges. This includes $12.5 billion within the Bridge Investment Program (BIP), which is a competitive grant program intended to support the replacement, rehabilitation, preservation, or protection of the nation's most important and economically significant bridges. The remaining $27.5 billion funds the Bridge Formula Program, which provides annual guaranteed funding that includes a $4 billion set aside for off-system bridges. Wisconsin received $225 million ($45 million annually) in Bridge Formula Program funds between 2022 and 2026.

Other discretionary grant funding relevant to freight is also available through the IIJA. These programs include:

- **Infrastructure for Rebuilding America (INFRA) Program:** Includes $8 billion to support freight and highway projects of regional and national significance.
- **Better Utilizing Investments to Leverage Development (BUILD) Grants:** $7.5 billion for road, rail, transit, and other surface transportation of local and/or regional significance.
- **National Infrastructure Project Assistance or "Megaprojects":** $5 billion to support large multijurisdictional or regional projects of significance that may not otherwise be unachievable without assistance.
- **Rural Surface Transportation Grant Program:** $300 million per year to support projects that improve and expand the surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and freight, and generate regional economic growth and improve quality of life.
- **Railroad Crossing Elimination Program:** $600 million funding annually for highway-rail or pathway-rail grade crossing improvement projects focused on improving the safety and mobility of people and goods.
- **Reconnecting Communities Pilot Program:** $195 million annually to restore community connectivity by removing, retrofitting, or mitigating highways or other transportation facilities that create barriers to community connectivity, including mobility, access, or economic development.
- **Strengthening Mobility and Revolutionizing Transportation (SMART) Grants:** Provides supplemental funding grants to rural, midsized, and large communities to conduct demonstration projects focused on advanced smart city or community technologies and systems in a variety of communities to improve transportation efficiency and safety.
- **Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) – Discretionary:** Provides funding for planning, resilience improvements, community resilience and evacuation routes, and at-risk coastal infrastructure.
- **Congestion Relief Program:** Advances innovative, integrated, and multimodal solutions to reduce congestion and the related economic and environmental costs in the most congested metropolitan areas with an urbanized area population of more than 1 million.
- **Airport Improvement Grant Program:** The Airport Improvement Grant (AIG) program allocates funding for runways, taxiways, safety, and other airport improvements. Airports can combine their yearly allocations to fund larger projects.

8.1.2.1 Wisconsin's Federal Fiscal Year 2026 (FFY26) Federal Aid Highway Program Apportionment

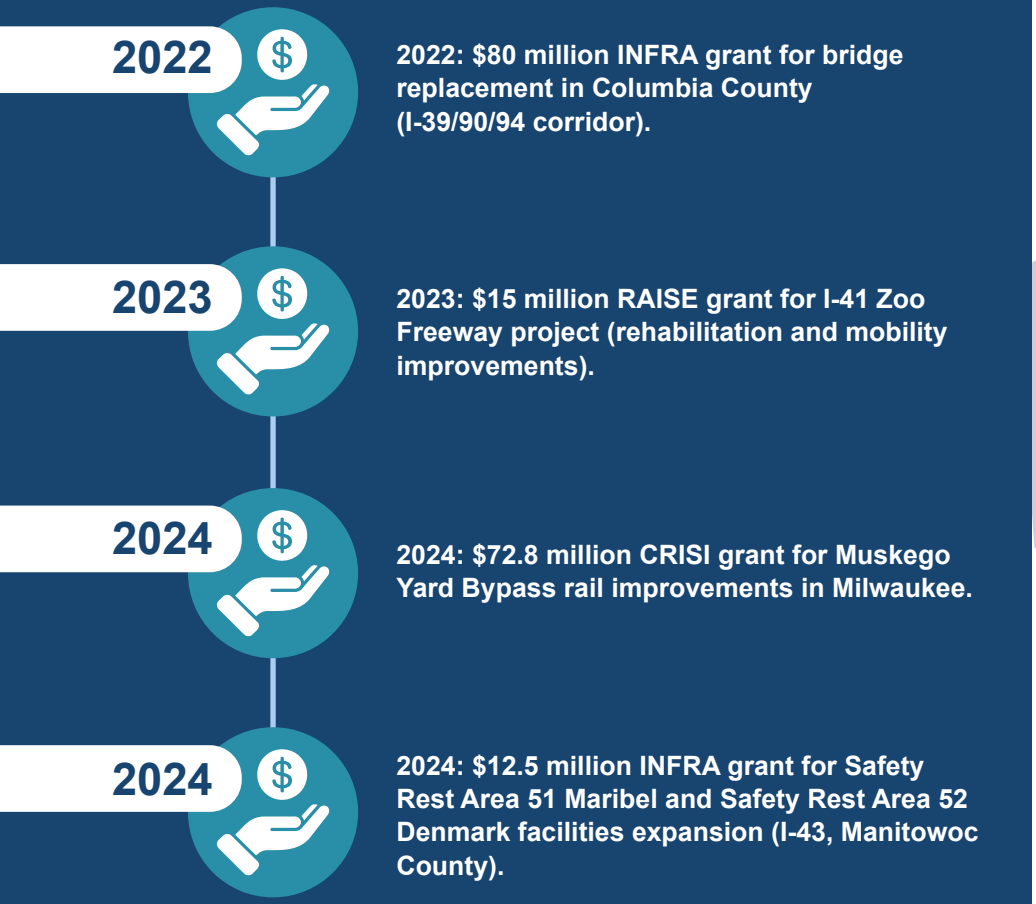
Table 8-1. Wisconsin's Federal Fiscal Year 2026 (FFY26) Federal Aid Highway Program Apportionment

PROGRAM	WISCONSIN APPORTIONMENT
National Highway Performance Program	$ 597,844,004.00
Surface Transportation Block Grant Program	$ 290,843,029.00
Highway Safety Improvement Program	$ 61,501,814.00
Railway-Highway Crossing Program	$ 6,293,587.00
Congestion Mitigation & Air Quality Improvement	$ 32,312,735.00
Metropolitan Planning	$ 6,528,514.00
National Highway Freight Program	$ 28,245,548.00
Carbon Reduction Program	$ 25,933,503.00
PROTECT Formula Program	$ 29,488,252.00
Wisconsin Total FFY26	**$ 1,078,990,986.00**

Source: FHWA Notice 4510.905, October 1, 2025.

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8.1.2.2 Federal Grants Supporting Freight Movement in Wisconsin



8.1.3 State Transportation Funding

State transportation revenues consist mainly of motor fuel taxes, vehicle registration/title fees, and driver license fees.

Similar to the federal Highway Trust Fund (HTF), Wisconsin finances transportation projects through the state Transportation Trust Fund. This fund supports state highways and bridges, local roads and bridges, the operation and maintenance of the state and local highway system, airport and harbor improvements, and publicly owned freight rail facilities. It also funds safety and enforcement activities carried out by the Division of State Patrol, the Division of Motor Vehicles, and WisDOT's administrative operations. Use of the Transportation Trust Fund is restricted by a state constitutional amendment and is dedicated exclusively to transportation-related purposes.

Motor vehicle fuel tax and registration account for 61 percent of total revenue to the Transportation fund. In 2023-24 gross transportation revenue had $1.056 billion accounted for by motor vehicle fuel tax and $753 million being deposited into the transportation fund from vehicle registration and title fees.[2]

8.1.3.1 Bonding

- **General Obligation Bonds:** These bonds finance highway construction, harbor and railroad projects, and rehabilitation. These bonds are repaid from transportation or general funds.
- **Transportation Revenue Bonds:** These are repaid from pledged transportation funds and revenue sources are primarily used for major projects. All vehicle-related registration and titling fees have been pledged for debt service since 2004. The biennial budget sets a limit on bond proceeds through 2027.

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8.1.4 Financing and Funding Mechanisms for Freight-Related Projects

WisDOT administers programs that fund transportation projects at state and local levels through direct funding, grants, and loans that act directly as a catalyst for economic development in the state. Examples of current programs include:

- State Highway Rehabilitation (SHR) Program
- Major Highway Development Program
- Local Roads Improvement Program
- Agricultural Roads Improvement Program
- General Transportation Aids
- Local Bridge Improvement Assistance (Local Bridge Program)
- Transportation Facilities Economic Assistance and Development (TEA) Program
- Surface Transportation Programs – Rural and Urban
- Freight Rail Infrastructure Improvement Program
- Freight Rail Preservation Program
- Harbor Assistance Program
- Airport Improvement Program

8.2 Prioritization of Freight Strategies and Projects

WisDOT's prioritization process provides decision-makers with the necessary information to strategically select projects for funding that meet the goals defined in Chapter 3 and help enhance freight mobility throughout Wisconsin. The prioritization process provides a methodology for WisDOT to evaluate projects with varying needs and thereby identify projects that provide the greatest benefit for freight mobility.

Needs and issues are identified through a multitude of sources, including Connect 2050, the State Rail Plan, the Transportation Asset Management Plan (TAMP), stakeholder and user inputs collected during recurring statewide planning efforts, bridge and roadway management processes, analysis of data, trends and forecasts, performance measures, metropolitan planning organization (MPO) and other local agency plans, and consultation with economic development-focused organizations. From these needs and issues, initial candidate projects are identified. Candidate projects are screened and filtered based on their alignment with state and regional goals and influence on the state freight system. This includes an assessment of freight-specific projects using the prioritization strategy identified below. The result is a refined project list.

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Prioritize freight-related projects to maintain reliability, safety, mobility, and capacity.



Prioritize freight-related projects that will provide a high return-on-investment.



Support opportunities on a local level for freight mobility improvements including mode choice, truck bypasses, routes used for delivery, etc.



Support potential new intermodal connections. Support planning level intermodal studies.



Assess and potentially evaluate gaps (first and last miles) between manufacturing and shipping facilities and near multimodal centers.

8.2.1 Screening Strategies for Freight Specific Projects

Projects on the refined project list are reviewed routinely, projects are recommended, resources are allocated, and projects are prioritized according to WisDOT's short-term and long-term goals. Those projects that are selected to be funded in a given cycle are added to the Statewide Transportation Improvement Program, and those not selected for development are retained for consideration in subsequent years.

8.3 Freight Plan Implementation Steps

Freight plan implementation will be focused on several key areas:

- Supporting WisDOT's overarching freight priorities for the transportation system through 2050
- Implementing mode-specific freight policies and strategies
- Using performance measures to track progress and identify issues
- Using data and tools to deliver plan policies and strategies
- Identifying and prioritizing Wisconsin-specific freight projects
- Coordinating with public and private sector freight stakeholders
- Serving as a resource for freight information

WisDOT anticipates updating the State Freight Plan on a four-year cycle, in accordance with federal requirements, including an update to the fiscally-constrained freight investment plan.

8.3.1 Support WisDOT's Overarching Freight Priorities for the Transportation System Through 2050

WisDOT will continue to work to deliver a safe and efficient transportation system. Ongoing freight transportation efforts include, but are not limited to, managing and delivering the state's multimodal transportation system, addressing safety concerns, and integrating proven best practices to improve department processes. Implementation will focus on priorities and initiatives that:

- Enhance safety, security, and resiliency
- Ensure system preservation and enhancement
- Enhance system mobility, operations, reliability, efficiency, and connectivity

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8.3.2 Implement Mode-Specific Freight Policies and Strategies

Policies and strategies presented in this plan have been developed to complement existing planning documents, consider FAC and stakeholder input, comply with fiscal constraints, and rely on data analysis by WisDOT staff. Implementing these policies and strategies will ensure this plan meets its goals of providing a safe, efficient, and sustainable freight system for future generations within Wisconsin.

Freight projects are identified in the Statewide Transportation Improvement Program (STIP) and are consistent with state and local long-range plans. The projects listed in the freight investment plan all contribute towards the goals of 23 USC 167.

The policies in Chapter 3 are largely mode-specific and will be implemented by business areas throughout WisDOT.

8.3.3 Use Performance Measures to Monitor the Freight System

This long-range, system-level plan reflects policies and strategies developed to be meaningful, reasonable, and practical. Monitoring the state's freight transportation system performance will help validate and verify the plan's proposed policy direction over time.

The plan's performance monitoring has two objectives: support existing performance measures and implement federally-required performance measures. Performance monitoring will be an ongoing process to track the Wisconsin freight system.

8.3.4 Use Data and Tools to Deliver Plan Policies and Strategies

The department's freight data analysis framework was used to identify Wisconsin's freight-dependent critical corridors and facilities through its Multimodal Freight Network (MFN) Data Tool. This statewide identification of corridors and facilities assists the department and freight stakeholders in:

- Building consensus on the most critical freight assets in Wisconsin
- Updating Critical Urban Freight Corridors and Critical Rural Freight Corridors, as needed
- Identifying "first and last mile" connections between facilities and corridors
- Identifying freight infrastructure needs
- Managing the transportation system to meet current freight demand

The department has developed a comprehensive system to prioritize freight assets by analyzing past performance, which serves as a valuable tool for prioritizing future freight-related projects. The prioritization system is called Freight Factor Scoring, which examines the following freight assets:

- State Trunk Highway (STH) Network
- Ports
- Airports

WisDOT developed a unique scoring metric for each facility based on factors related to usage and proximity to other freight facilities which is designed to emphasize multimodal connectivity. Each facility receives a score of 1 to 99, with the highest numbers indicating the greatest amount of importance to freight-related movements.

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Highways

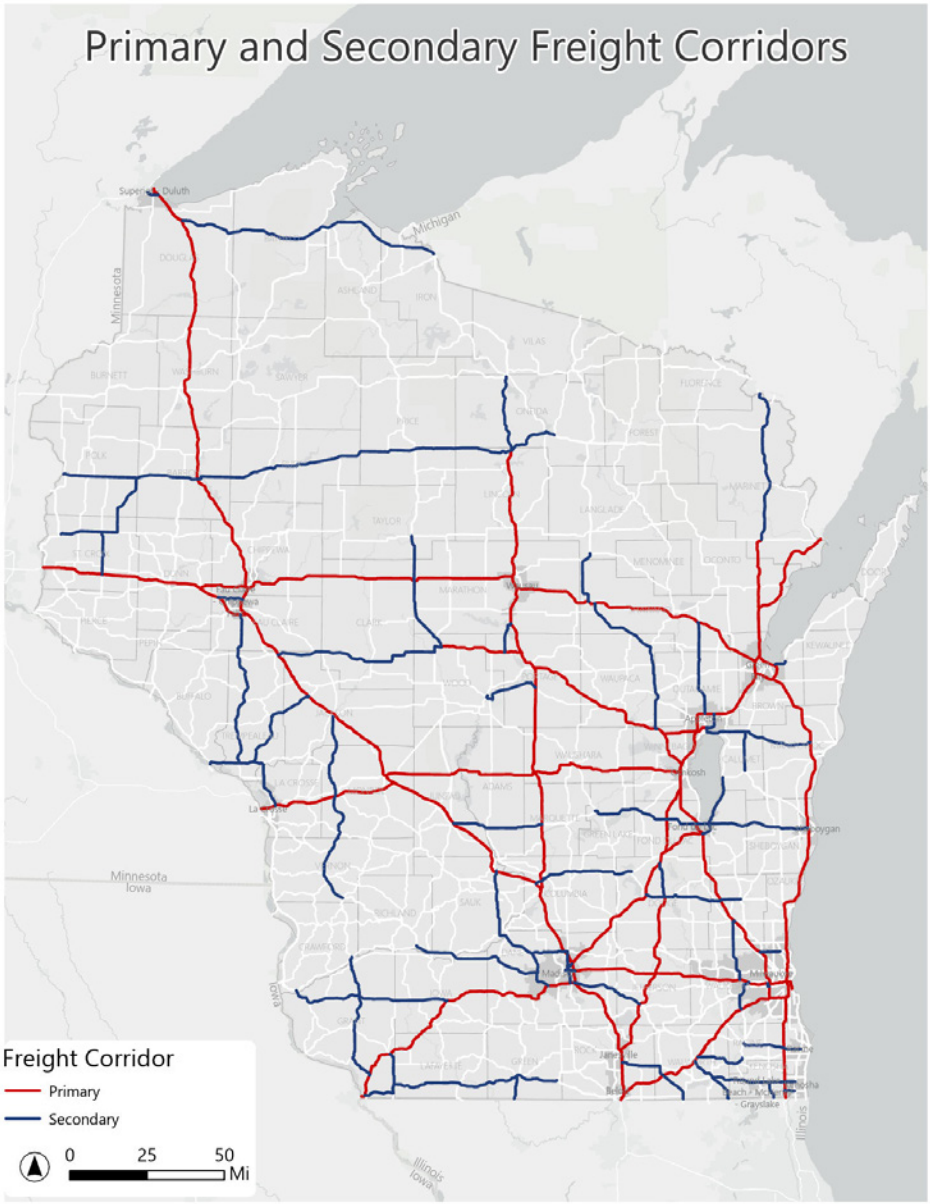
All segments of the over 11,700-mile STH Network were evaluated to identify the corridors that are most important to the movement of freight. Only data related to freight and its movements were considered, which is why data related to other key characteristics such as safety and total traffic were not weighted.

For highways, Freight Factor Scoring considers the following criteria:

- Trucks per Lane
- Truck Percentage
- OSOW Permit Frequency
- Freight Commodity Value
- Freight Commodity Tonnage
- NHS Intermodal Connector Status

Through analysis of these criteria, Freight Factor Scores were generated, and freight corridors were identified based on these scores. Figure 8-2 shows the state's Primary and Secondary Freight Highway Corridors.

Figure 8-2. Primary and Secondary Freight Corridors



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Ports and Waterways

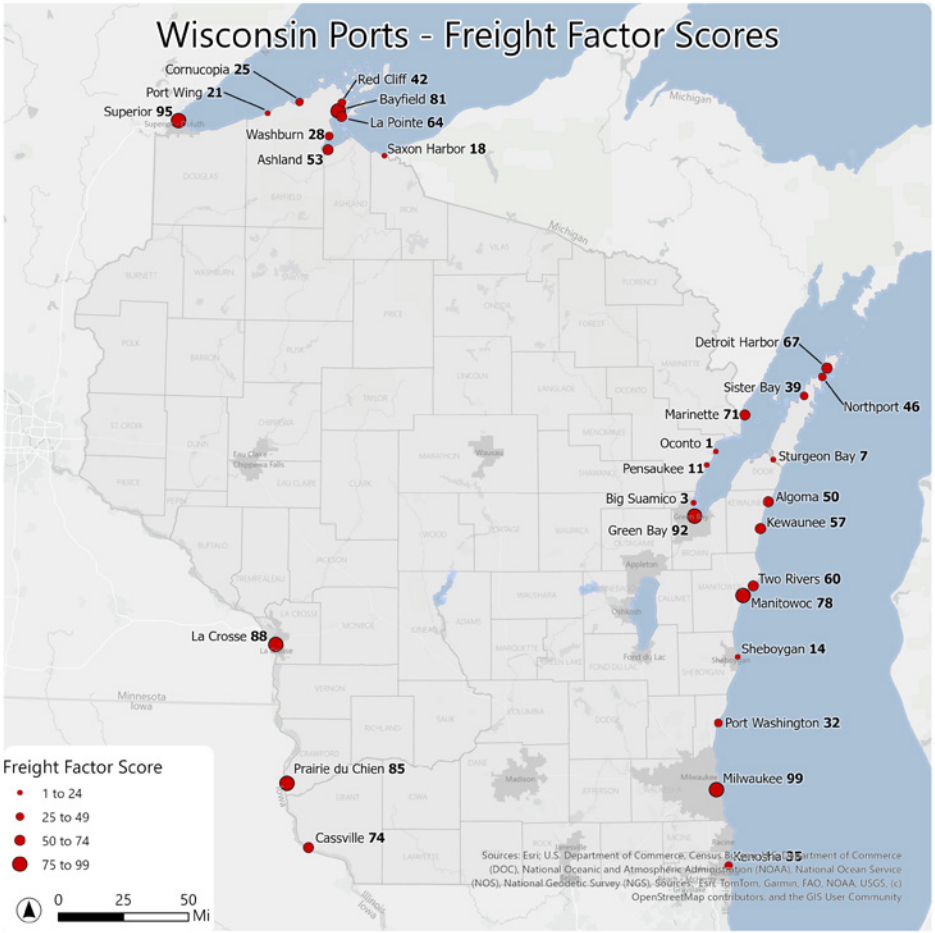
Understanding the volume and connectivity of ports and harbors in the state allows for analysis of supporting infrastructure, such as rail lines and roads, to identify critical needs on the transportation system. Ensuring that supporting infrastructure can facilitate the movement of goods entering or leaving ports and harbors is critical for overall efficiency, resiliency, and predictability.

Although tonnage and value were the largest factors for scoring port and harbor facilities, intermodal connectivity also plays a significant role. Freight Factor Scores for ports were developed based on the following criteria:

- Commodity Tonnage
- Commodity Value
- Connection to a railroad, or potential connection to a railroad
- Ferry Service
- Proximity to a State Highway

Figure 8-3 shows the Freight Factor Scores for Wisconsin's maritime ports.

Figure 8-3. Wisconsin Ports – Freight Factor Scores

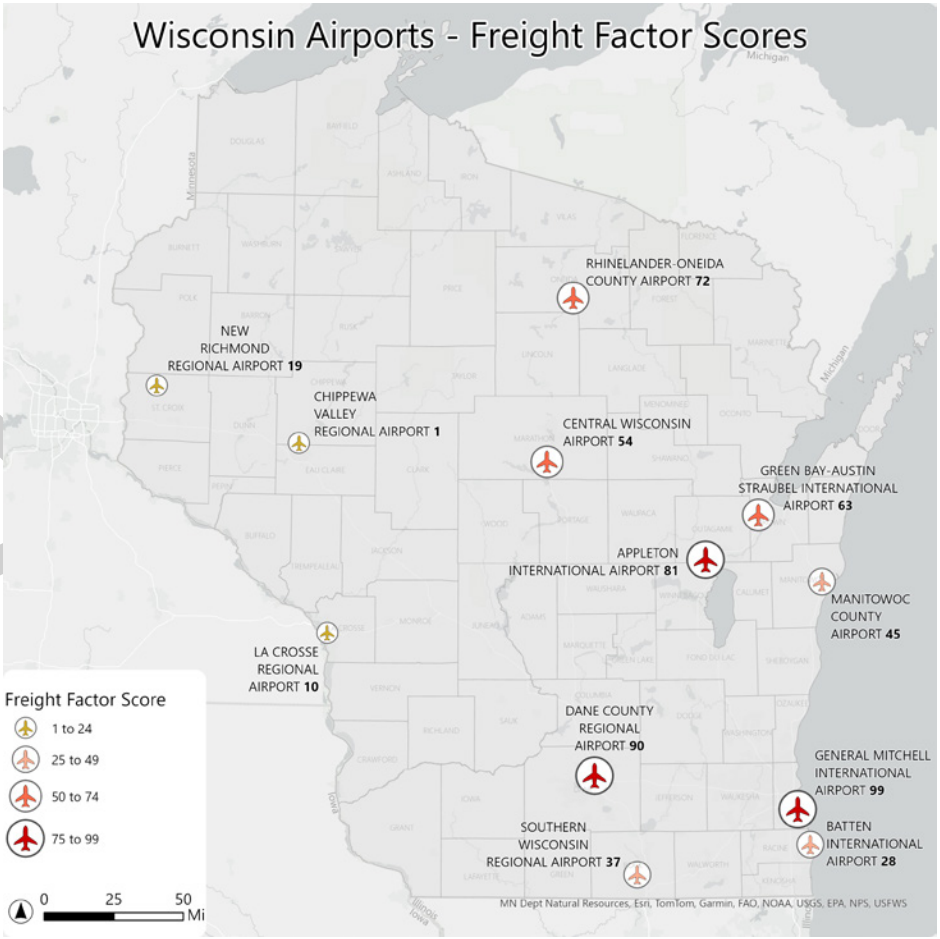


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Air Cargo

The value and tonnage of commodities moving to or from Wisconsin airports were the two factors used to create the airport Freight Factor Score. Tonnage and value were weighed equally for the other modes, but for air travel, commodity value was considered to be a more important attribute than weight. Air freight generally is used for high-value or highly perishable goods. Figure 8-4 shows the Freight Factor Score for Wisconsin airports that ship or receive freight.

Figure 8-4. Wisconsin Airports – Freight Factor Scores



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8.3.5 Identification of Wisconsin-Specific Freight Projects

Wisconsin's long-range plans and corridor plans typically are implemented through programming decisions (scheduling and financing of projects in the next four to six years), which align infrastructure needs with available funding and staff resources. WisDOT administers a variety of programs involving federal, state, and local funds that support all modes of transportation. These funds are allocated across various transportation modes based upon analysis of needs.

This analysis uses a range of data sources, known priorities, and funding availability, as well as statutory and regulatory requirements. In general, each program and funding decision is mode-specific.

Per 49 USC 70202, state freight plans are required to include a "freight investment plan", which contains a list of priority projects and shows how National Highway Freight Program (NHFP) funds will be utilized. Appendix A constitutes WisDOT's "freight investment plan" for this State Freight Plan.

- As noted, as of December 2026 WisDOT plans to utilize NHFP funds on the projects in Appendix A. In accordance with 23 USC 167 and 49 USC 70202, it is possible those funds may be obligated to other projects at a later date; should this occur, Appendix A will be updated in coordination with FHWA.
- The projects listed in Appendix A will be funded with federal, state, and local funds. WisDOT will ensure Appendix A meets federal requirements and is in alignment with the state budgetary cycle following the signing of each biennial budget.
- The projected available NHFP funding for each federal fiscal year is at the top of each column.
- The projected NHFP funding amount and a cost range for other funding sources are listed for each project.
- The current engineer's estimate for projects cannot be listed and must remain confidential, as WisDOT is governed by competitive bidding requirements in state statutes.
- All projects utilizing NHFP funds will be included in the STIP before requesting federal funding.

Per 23 USC 167, a state may use up to 30 percent of its NHFP funds each fiscal year for freight intermodal or freight rail projects. As of December 2026, WisDOT intends to utilize NHFP funds on three rail projects as depicted in Appendix A.

8.3.6 Coordination with Freight Stakeholders

Many freight transportation decisions involve multiple stakeholders such as WisDOT, the federal government, local governments and planning organizations (including Regional Planning Commissions and MPOs), Tribal Nations, the private sector, operators, and other stakeholders. Since no single entity has authority over the entire transportation system, implementing the Wisconsin State Freight Plan will take coordination and cooperation among many interests and business areas.

As a result, the responsibility for the safety, maintenance, operation, planning, and funding of the state's multimodal transportation system is shared by a full range of stakeholders and institutions, including the federal government, state government, local governments, and private entities. Therefore, the operation of a seamless transportation system requires coordination, collaboration, communication, and cooperation.

WisDOT

The department's executive offices and six divisions are organized according to function, with most staff operating from a central office located in Madison, and the remainder operating from regional offices and Division of Motor Vehicle customer service centers throughout the state. This structure helps to preserve the customer-focused approach to transportation development and better serves stakeholder needs.

Implementing the State Freight Plan requires that staff continue to work together to communicate plan policies, engage stakeholders in transportation discussions, and integrate plan recommendations into project-level activities. Implementation responsibilities will vary depending on the item, issue, or activity.

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Government Entities, Such as Local Units of Government and Tribal Nations

Implementation of the State Freight Plan requires coordination with government units such as local governments and Tribal Nations that own and operate their own transportation services. Over the planning period, WisDOT will continue to work with its partners to address system priorities and continue to coordinate resources and activities through existing partnerships and agreements.

Private Sector, Operators, and Others

WisDOT is responsible for decisions regarding the STH system. For all other modes of transportation, the infrastructure or service is owned or operated by someone else - the local government, Tribal Nation, or private sector. If there is any federal or state funding assistance, WisDOT may be one of a few agencies that administers the funding and provides technical assistance.

Sometimes decisions on policy or project funding are shared and WisDOT can act as a catalyst for local or private transportation investment. In this way, stakeholders and WisDOT will collaborate to meet the State Freight Plan vision.

A critical forum for discussion of freight plan implementation strategies is the state's FAC. WisDOT will continue to support and convene the FAC into the future. The FAC has performed a valuable role in advising and prioritizing the concerns of various freight-related industries, and in offering detailed information on policies and operations. As WisDOT identifies and modifies its freight policies and prioritizes its list of freight-related projects, the department will continue to convene the FAC as a forum for developing consensus on those policies and projects, and to identify future projects and policies for consideration.

8.3.7 Serve as a Resource for Freight Information

As with previous State Freight Plans, developing this plan required WisDOT to collect new data and information, develop and update analytic tools, consult a myriad of public and private sector freight system stakeholders, and look inward to define the future roles and responsibilities of the state in advocating, facilitating, planning, and investing in the freight transportation system. While this document will serve as a resource to WisDOT and contributing stakeholders, WisDOT's exploration of the state's freight transportation system, its needs, issues, and opportunities will continue. As such, WisDOT will continue to provide tools and other materials that communicate and educate industry and the general public on pertinent freight topics and issues. The release of two recent comprehensive reports - (1) Intermodal Freight in Wisconsin - 2025 Update, and (2) the Wisconsin Statewide Truck Parking Study - serve as good examples of WisDOT's commitment to fulfill this pledge.

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Chapter 2

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A

Freight Investment Plan

APPENDIX A ▪ WISCONSIN STATE FREIGHT PLAN

2027

Appendix A. Freight Investments

The projects below reflect the projects WisDOT plans to utilize National Highway Freight Program funds on, as of December 2026. In accordance with 23 USC 167 and 49 USC 70202, it is possible those funds may be obligated to other projects at a later date; should this occur, Appendix A will be updated in coordination with FHWA. For additional information see Section 8.3.5.

- Backbone
- Majors
- PHFS Intermodal Connector
- Critical Rural Freight Corridor
- Railroad

FFY27 Projected — Available NHFP Funds (Projected): $27,863,642

PROJECT TITLE:
I-41 Appleton - De Pere - Meade St. - Holland Road Construction/Reconstruction with Expansion of Mainline
PROJECT ID: 1130-65-72
LET DATE (PROJECTED): July 2026

NHFP Funds	$16,663,642
Other Fed.Funds	$10,000,000 to $15,000,000
State Funds	$10,000,000 to $15,000,000
Local Funds	$0
Total Funds	$40,000,000 to $50,000,000

PROJECT TITLE:
I-39 Portage - Coloma - Fawn Court to Waushara Co Line, SB - Const/Resurface
PROJECT ID: 1166-04-85
LET DATE (PROJECTED): July 2026

NHFP Funds	$9,000,000
Other Fed. Funds	$0 to $5,000,000
State Funds	$0 to $5,000,000
Local Funds	$0
Total Funds	$10,000,000 to $15,000,000

PROJECT TITLE:
S. Lincoln Memorial Drive Jones St. - I-794 Reconstruction
PROJECT ID: 2109-02-70
LET DATE (PROJECTED): December 2026

NHFP Funds	$2,200,000
Other Fed. Funds	$0
State Funds	$0
Local Funds	$2,000,000 to $3,000,000
Total Funds	$4,000,000 to $5,000,000

FFY28 Projected — Available NHFP Funds (Projected): $28,234,250

PROJECT TITLE:
Valley Bridge (IH43/IH94) - Walker St to Menomonee River - Const/BRRHB
PROJECT ID: 1030-12-72
LET DATE (PROJECTED): September 2028

NHFP Funds	$4,000,000
Other Fed. Funds	$5,000,000 to $10,000,000
State Funds	$0 to $5,000,000
Local Funds	$0
Total Funds	$10,000,000 to $15,000,000

PROJECT TITLE:
IH 41 Zoo Freeway - Howard Ave to UPRR - Const/Bridge Replacement
PROJECT ID: 1100-35-71
LET DATE (PROJECTED): December 2027

NHFP Funds	$3,000,000
Other Fed. Funds	$0 to $5,000,000
State Funds	$0 to $5,000,000
Local Funds	$0 to $5,000,000
Total Funds	$5,000,000 to $10,000,000

PROJECT TITLE:
IH 94 East West Freeway - STH 16 to Waukesha E Co Ln - Const/ Resurface, Bridge Maintenance
PROJECT ID: 1060-13-76
LET DATE (PROJECTED): September 2028

NHFP Funds	$16,773,917
Other Fed. Funds	$25,000,000 to $30,000,000
State Funds	$10,000,000 to $15,000,000
Local Funds	$0
Total Funds	$55,000,000 to $60,000,000

PROJECT TITLE:
Janesville RR Bridges
PROJECT ID: 1001-64-53
LET DATE (PROJECTED): April 2027

NHFP Funds	$4,460,333
Other Fed. Funds	$0 to $5,000,000
State Funds	$5,000,000 to $10,000,000
Local Funds	$0 to $5,000,000
Total Funds	$15,000,000 to $20,000,000

FFY29 Projected — Available NHFP Funds (Projected): $28,798,935

PROJECT TITLE:
IH 43, City of Green Bay - Leo Frigo Bridge, B-05-0158 - Const Ops/BRRHB
PROJECT ID: 1220-22-71
LET DATE (PROJECTED): August 2029

NHFP Funds	$20,798,935
Other Fed. Funds	$80,000,000 to $90,000,000
State Funds	$10,000,000 to $15,000,000
Local Funds	$0
Total Funds	$110,000,000 to $120,000,000

PROJECT TITLE:
Hudson - Menomonie - CTH T to CTH BB (EB & WB) - Construction/Resurface
PROJECT ID: 1020-07-70
LET DATE (PROJECTED): September 2029

NHFP Funds	$5,000,000
Other Fed. Funds	$5,000,000 to $10,000,000
State Funds	$0 to $5,000,000
Local Funds	$0
Total Funds	$10,000,000 to $15,000,000

PROJECT TITLE:
Muskego Yards CRISI Grant - Muskego Yard Freight Tracks - EX-Const/New Track Structures & Track
PROJECT ID: 1000-73-53
LET DATE (PROJECTED): September 2028

NHFP Funds	$3,000,000
Other Fed.Funds	$50,000,000 to $60,000,000
State Funds	$5,000,000 to $10,000,000
Local Funds	$0 to $5,000,000
Total Funds	$70,000,000 to $80,000,000

FFY30 Projected — Available NHFP Funds (Projected): $29,374,913

PROJECT TITLE:
EW Freeway - Marquette I/C - Const/RSRF20
PROJECT ID: 1228-09-75
LET DATE (PROJECTED): September 2030

NHFP Funds	$11,584,000
Other Fed. Funds	$0 to $5,000,000
State Funds	$0 to $5,000,000
Local Funds	$0
Total Funds	$20,000,000 to $25,000,000

PROJECT TITLE:
Madison - Portage - CTH BB/ Cottage Grove Rd, B-13-972 - Const/Reconst
PROJECT ID: 1012-22-70
LET DATE (PROJECTED): February 2030

NHFP Funds	$5,000,000
Other Fed. Funds	$0 to $5,000,000
State Funds	$0 to $5,000,000
Local Funds	$0
Total Funds	$5,000,000 to $10,000,000

PROJECT TITLE:
Hudson - Baldwin - U.S. 12 to STH 65 (EB & WB) - Construction/ Resurface
PROJECT ID: 1020-00-72
LET DATE (PROJECTED): September 2030

NHFP Funds	$7,374,913
Other Fed. Funds	$0 to $5,000,000
State Funds	$0 to $5,000,000
Local Funds	$0
Total Funds	$10,000,000-$15,000,000

PROJECT TITLE:
Crawfish River Bridge
PROJECT ID: 1001-63-53
LET DATE (PROJECTED): December 2029

NHFP Funds	$5,416,000
Other Fed. Funds	$0 to $5,000,000
State Funds	$0 to $5,000,000
Local Funds	TBD
Total Funds	$5,000,000 to $10,000,000

FFY31 Projected — Available NHFP Funds (Projected): $29,962,412

PROJECT TITLE:
IH 41 NS Freeway Kenosha - IL State Line to Racine Cty Ln - CONST/PSRS30
PROJECT ID: 1030-30-70
LET DATE (PROJECTED): September 2031

NHFP Funds	$7,500,000
Other Fed. Funds	$0 to $5,000,000
State Funds	$0 to $5,000,000
Local Funds	$0
Total Funds	$10,000,000 to $15,000,000

PROJECT TITLE:
Madison - Portage - STH 60 to CTH CS - Construct/RSRF20
PROJECT ID: 1012-02-71
LET DATE (PROJECTED): November 2031

NHFP Funds	$2,500,000
Other Fed. Funds	$0 to $5,000,000
State Funds	$0 to $5,000,000
Local Funds	$0
Total Funds	$0 to $5,000,000

PROJECT TITLE:
Madison - Deforest - U.S. 151 to Kinsman Blvd - Construct/Env Doc to PS&E/Reconst
PROJECT ID: 5410-04-71
LET DATE (PROJECTED): October 2031

NHFP Funds	$19,962,412
Other Fed. Funds	$25,000,000 to $30,000,000
State Funds	$10,000,000 to $15,000,000
Local Funds	$0
Total Funds	$50,000,000 to $60,000,000

FFY32 Projected — Available NHFP Funds (Projected): $30,561,660

PROJECT TITLE:
Turtle Lake - Cameron - N Wye Street to CTH O - Construction/ PVRPLA
PROJECT ID: 1570-00-81
LET DATE (PROJECTED): September 2032

NHFP Funds	$3,000,000
Other Fed. Funds	$0 to $5,000,000
State Funds	$0 to $5,000,000
Local Funds	$0
Total Funds	$5,000,000 to $10,000,000

PROJECT TITLE:
Plainfield - Stevens Point - STH 54 to N 2nd Street - Constr/ Resurface
PROJECT ID: 1166-06-81
LET DATE (PROJECTED): December 2031

NHFP Funds	$5,000,000
Other Fed. Funds	$0 to $5,000,000
State Funds	$0 to $5,000,000
Local Funds	$0
Total Funds	$10,000,000 to $15,000,000

PROJECT TITLE:
Madison - Cambridge - U.S. 18 to IH 39 - Construct/RSRF10
PROJECT ID: 1200-00-77
LET DATE (PROJECTED): November 2032

NHFP Funds	$13,000,000
Other Fed. Funds	$0 to $5,000,000
State Funds	$0 to $5,000,000
Local Funds	$0
Total Funds	$15,000,000 to $20,000,000

PROJECT TITLE:
Milwaukee - Fond du Lac - U.S. 45 to STH 144 - Const/PVRPLA
PROJECT ID: 1100-32-71
LET DATE (PROJECTED): September 2032

NHFP Funds	$9,561,660
Other Fed. Funds	$60,000,000-$70,000,000
State Funds	$15,000,000-$20,000,000
Local Funds	$0
Total Funds	$80,000,000-$90,000,000

FFY33 Projected — Available NHFP Funds (Projected): $31,172,893

PROJECT TITLE:
TO BE DETERMINED

PROJECT TITLE:
TO BE DETERMINED

PROJECT TITLE:
TO BE DETERMINED

FFY34 Projected — Available NHFP Funds (Projected): $31,796,351

PROJECT TITLE:
TO BE DETERMINED

PROJECT TITLE:
TO BE DETERMINED

PROJECT TITLE:
TO BE DETERMINED

Projects intended to address highway bottlenecks, as depicted on Figure 5-12.

B

Summary of Freight Plan Outreach

APPENDIX B ▪ WISCONSIN STATE FREIGHT PLAN

2027

This Appendix will be finalized after the public involvement process is complete.

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C

Socioeconomic Analysis

APPENDIX C ▪ WISCONSIN STATE FREIGHT PLAN

2027

Appendix C. Socioeconomic Analysis

Across all modes, freight transportation serves necessary functions for society, bringing products from across the globe to Wisconsin while also sending items produced in Wisconsin to customers. These essential operations have varying types and degrees of impact on their surroundings.

On one hand, those living in proximity to facilities may face burdens that include noise, vibration, reduced air quality, water pollution from roadway runoff, safety concerns, and barriers to community cohesion and connectivity. On the other hand, freight facilities and corridors can offer benefits, such as economic development as businesses gain greater access and/or reduced costs for receiving and shipping products.

C.1 Considering Impacts within Wisconsin's State Freight Plan

The establishment of a demographic profile seeks to understand how decision-making, and actions affect mobility, access to transportation options, social and economic opportunities, and the distribution of environmental impacts for all community members.

Comprehensive transportation planning considers the needs of all populations being served by the transportation system, particularly populations that are identified in state and federal legislation as requiring specific consideration. Among the federal laws that help to define populations to consider in this demographic profile is Title VI of the Civil Rights Act of 1964, which prohibits discrimination based on race, color, and national origin in programs and activities receiving federal financial assistance. As well as the Americans with Disabilities Act of 1990, the Older Americans Act of 1965, and Section 162(a) of the Federal-Aid Highway Act of 1973.

This demographic profile in the Wisconsin State Freight Plan includes several elements. These include:

- A statewide overview of major transportation corridors and facilities where potential impacts may be concentrated.
- Mapping by census tract of locations across the state where various population groups live.
- Tables of the census tract data.
- General discussion of methods to reduce, minimize, and/or mitigate potential burdens from freight transportation operations.
- A discussion of WisDOT's outreach to various population groups, including incorporation of comments received from those outreach efforts.

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C.2 Long-Range Assessment Versus Project-Level Analysis

The Wisconsin State Freight Plan is, by definition, a long-range assessment of freight transportation conditions and needs. Therefore, assessments of impacts can only be made in general terms. The purpose of this planning-level review of population groups living near freight infrastructure is to inform later discussions during corridor study, project, and program-levels.This system-wide discussion considers a cumulative, “big picture” view that does not serve the same purpose of analyses at the project, corridor, and program-levels. It stresses a qualitative description and discussion of existing conditions, rather than a quantitative analysis that will be conducted during project and corridor level studies.

The WisDOT Facilities Development Manual (FDM) provides guidance on conducting demographic analyses and community impact assessments for individual project as well as how to address public involvement in project-level planning, including specific contact methods with Tribes and outreach to those with Limited English Proficiency. Further guidance on outreach covers provisions under the 1990 Americans with Disabilities Act (ADA), including accommodations for individuals with sight, hearing, or mobility limitations and adequate access to services such as sign language, listening assistance, and telecommunication for the deaf and hard of hearing (TDD).

C.3 Wisconsin’s Multimodal Freight System

Any transportation corridor or facility will have some degree of impact on its surroundings, whether as a barrier for wildlife or pedestrian movement, or as a means for farm products to get to processing facilities in a timely manner. The degree of impact is influenced by, among other things, the size of the facility, the volume and duration of traffic through the facility, and the type of activities performed at the facility.

The public and private transportation facilities listed in C.3.1 through C.3.4 were used to determine the potential to generate impacts for those who live or frequent locations near those facilities.

C.3.1 Trucking

- National Highway System (Interstate, U.S. and State Highways)
- National Highway Freight Network
  - Primary Highway Freight System (PHFS)
  - Other interstates not on the PHFS
  - Critical Rural Freight Corridors (CRFCs)
  - Critical Urban Freight Corridors (CUFCs)

C.3.2 Freight Rail

- Railroad main lines
  - Railroad lines that are Out of Service or in Discontinuance were included for analysis as they could go back into service at any time.
  - Railroad lines in Interim Trail Use status were not included.

C.3.3 Maritime

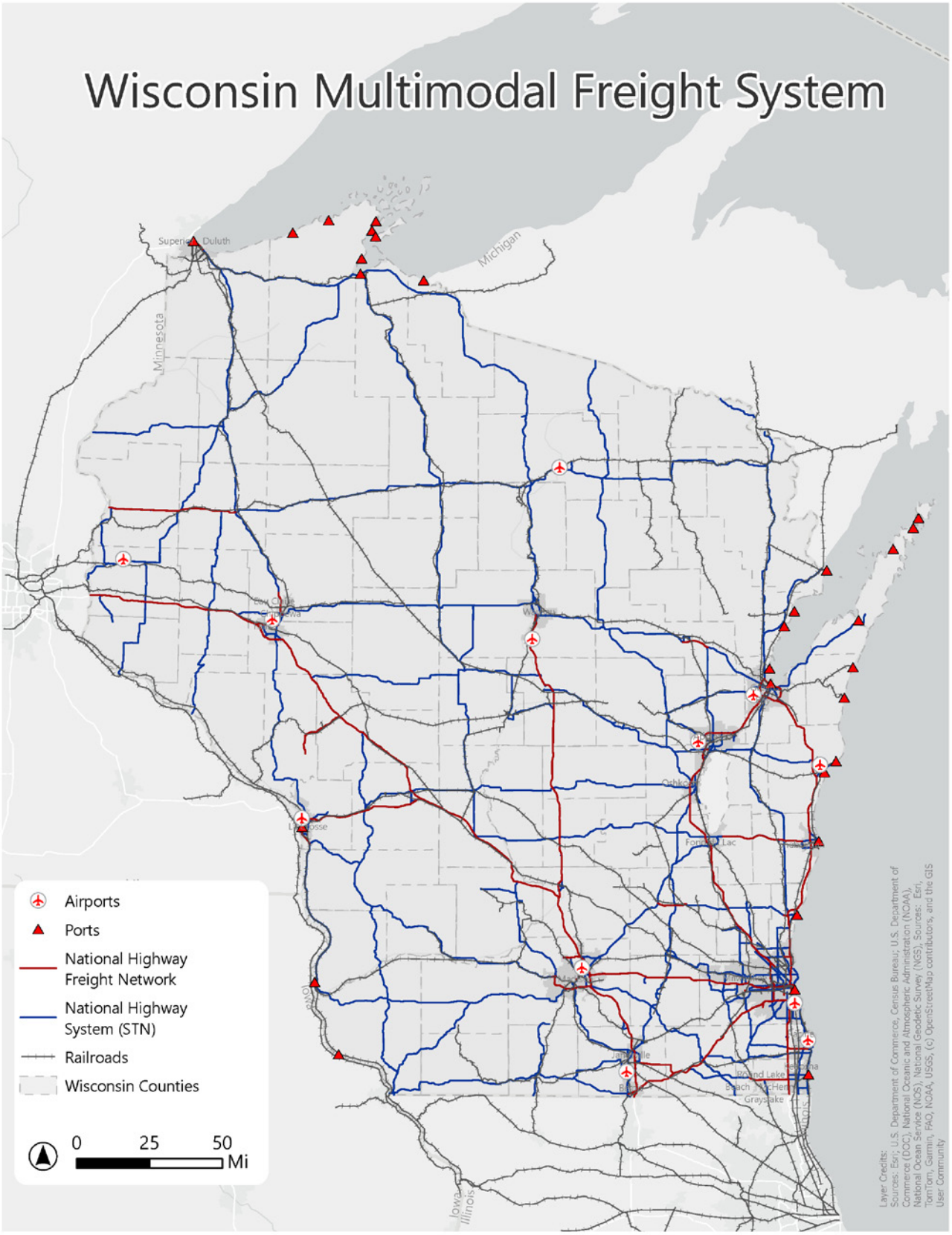
- Ports or Harbors with Freight activity

C.3.4 Aeronautics

- Airports with freight activity

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Figure C-1. Wisconsin Multimodal Freight System



C.4 Census Data and Population Groups

This section identifies a range of population groups for the purposes of this planning-level analysis. The range of population groups considered may be modified during project-level analyses and other WisDOT initiatives.

This chapter identifies the geographic distribution of these population groups:

- Populations, including:
  - White
  - Hispanic or Latino
  - Black
  - American Indian or Alaska Native
  - Asian
  - Some Other Race
  - Two or More Races
- Low-income populations
- People with disabilities
- Seniors (age 65 and older)
- Youth (age 17 and under)
- Zero-vehicle households
- Limited English Proficiency

C.4.1 Data Sources

The American Community Survey (ACS) is conducted every month of every year and samples about 3.5 million addresses in the 50 states, District of Columbia, and Puerto Rico. The ACS asks about topics not on the Decennial Census, such as education, employment, internet access, and transportation. The 2027 Wisconsin State Freight Plan makes use of ACS 5-year estimates released in January 2024. All the represented sections are at the census tract level.

The following tables (Tables C-1 to C-6) show the state populations for each of the demographics categories. All ACS data is based on a 90 percent confidence level. All percentages are rounded to the nearest, non-zero whole number.

Table C-1. 2024 WI Population Percentages by Race and Ethnicity

POPULATION CATEGORY	STATEWIDE POPULATION	PERCENT (ROUNDED)
Total Population	**5,914,872**	
Hispanic or Latino	471,930	8%
White	4,646,738	79%
Black	351,851	6%
American Indian or Alaska Native	32,464	<1%
Asian	173,674	3%
Some Other Race	20,508	<1%
Two or More Races	216,283	4%

Table C-2. 2024 WI Population Federally Determined to be in Poverty

POPULATION CATEGORY	STATEWIDE POPULATION	PERCENT (ROUNDED)
Total Population Surveyed	**5,780,896**	
Population in Poverty	610,030	11%

Table C-3. 2024 WI Population with a Disability

POPULATION CATEGORY	STATEWIDE POPULATION	PERCENT (ROUNDED)
Total Population Surveyed	**5,851,279**	
Population with Disability	719,238	12%

Table C-4. 2024 WI Senior and Youth Populations

POPULATION CATEGORY	STATEWIDE POPULATION	PERCENT (ROUNDED)
Total Population Surveyed	**5,914,872**	
Population in over 65	1,096,043	19%
Population under 18	1,264,546	21%

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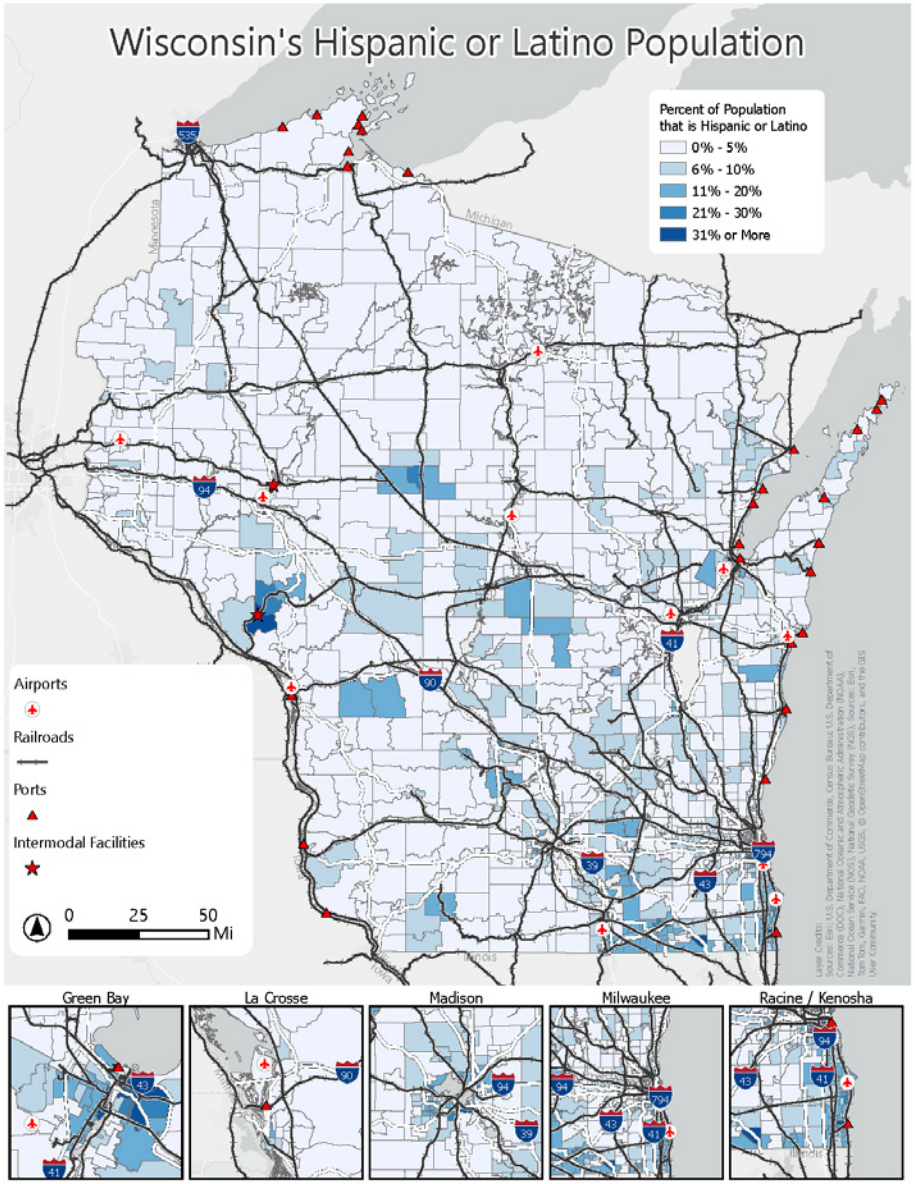
Table C-5. 2024 WI Zero-Vehicle Households

POPULATION CATEGORY	STATEWIDE POPULATION	PERCENT (ROUNDED)
Total Households Surveyed	**2,479,480**	
Households with Zero Vehicles	158,542	6%

Table C-6. 2024 WI Limited English Proficiency (Ability)

POPULATION CATEGORY	STATEWIDE POPULATION	PERCENT (ROUNDED)
Total Population Surveyed (over 18 year)	**4,650,326**	
Population with Limited English Proficiency (over 18 year)	154,084	3%

Figure C-2. Hispanic or Latino Population



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Figure C-3. White Population

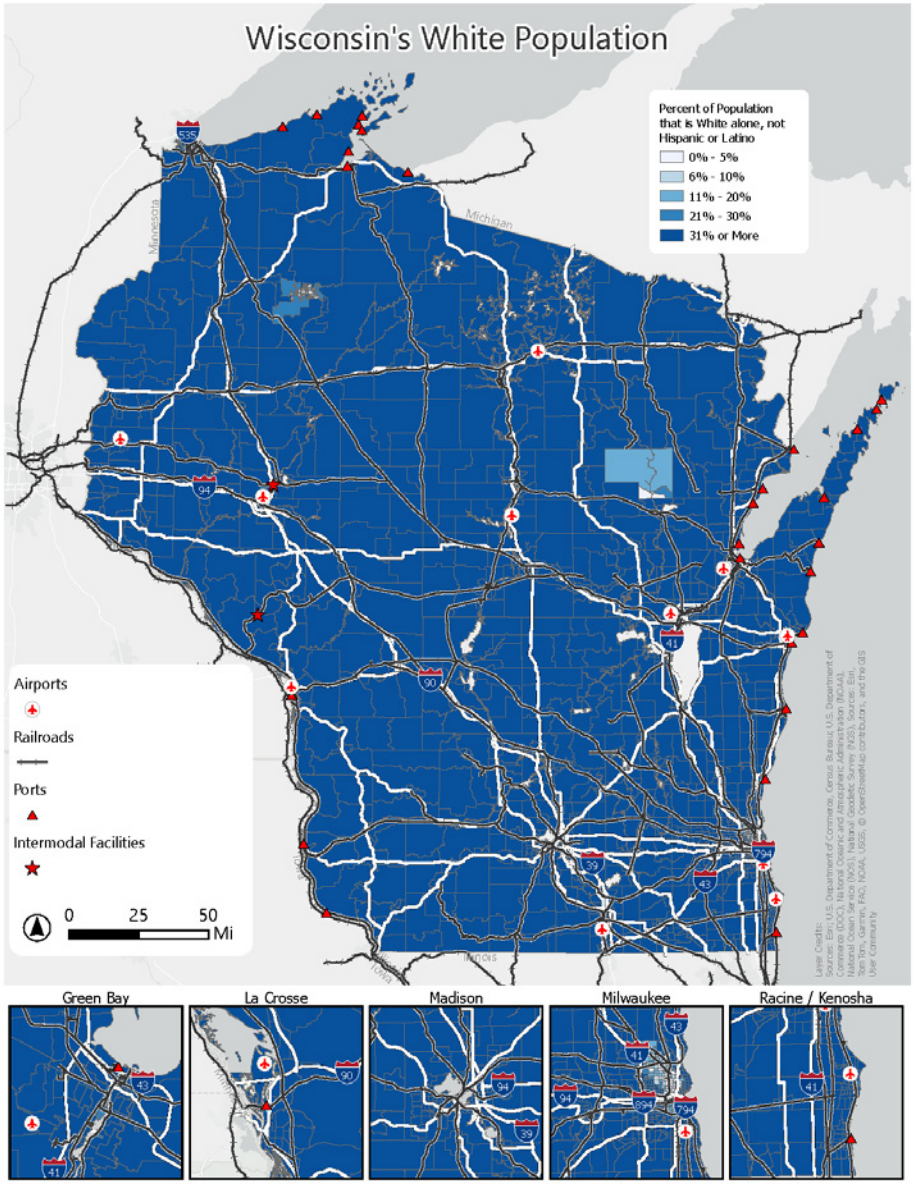


Figure C-4. Black Population

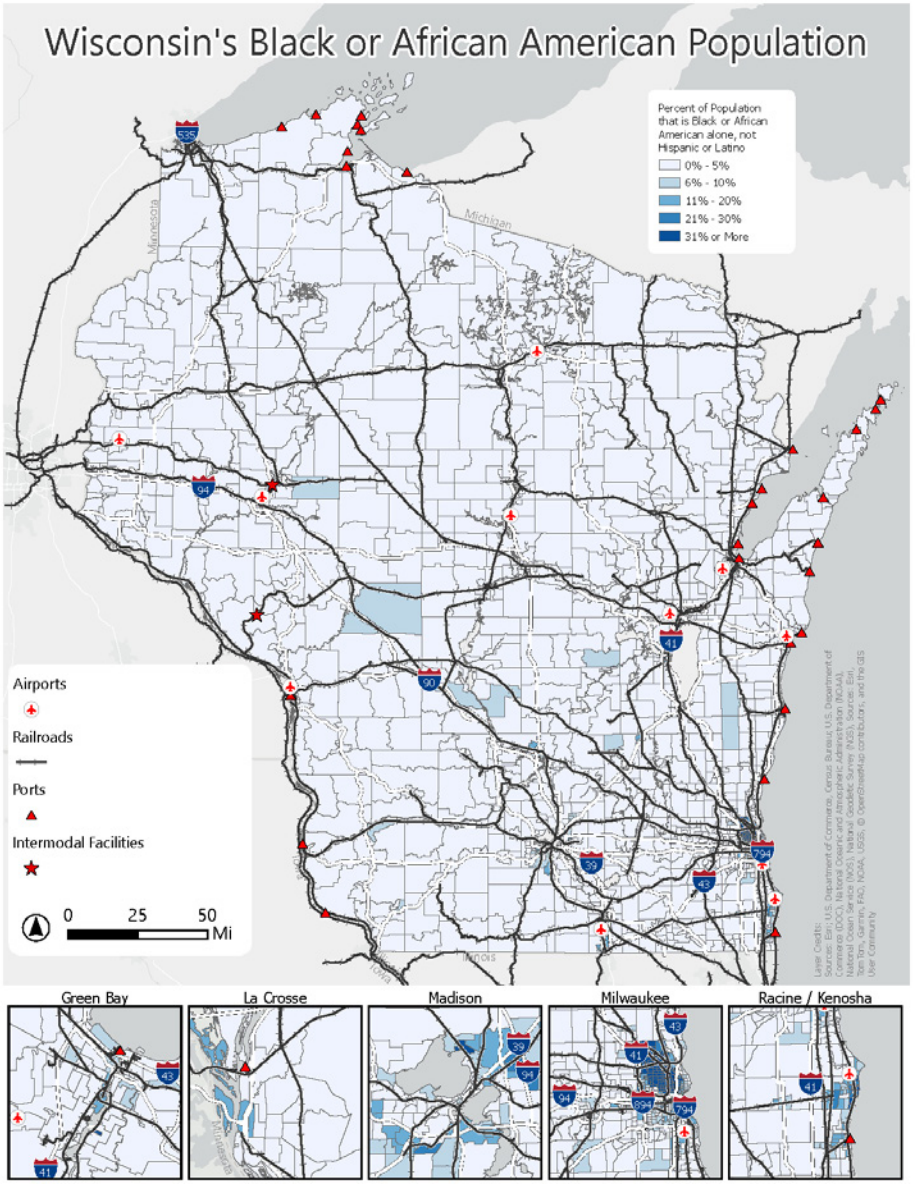


Figure C-5. American Indian or Alaska Native Population

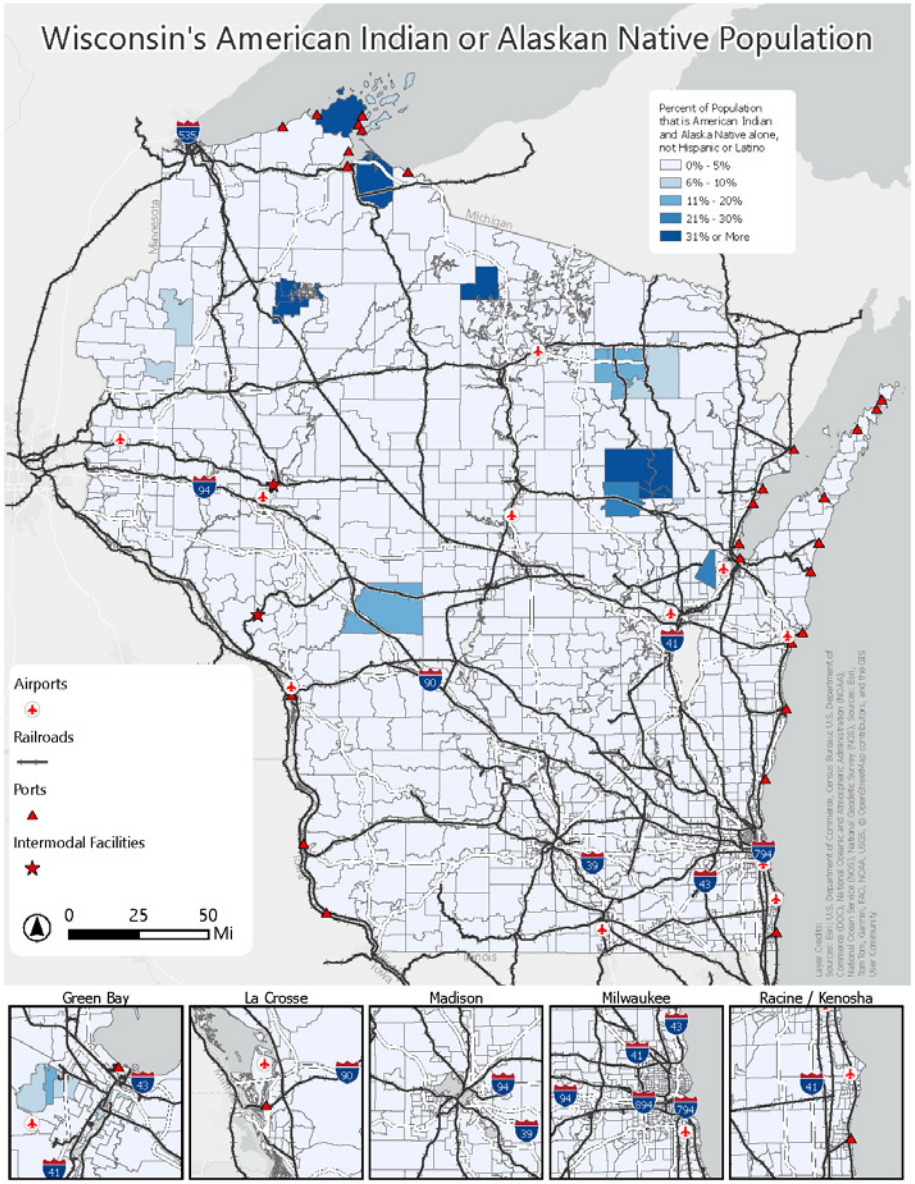


Figure C-6. Asian Population

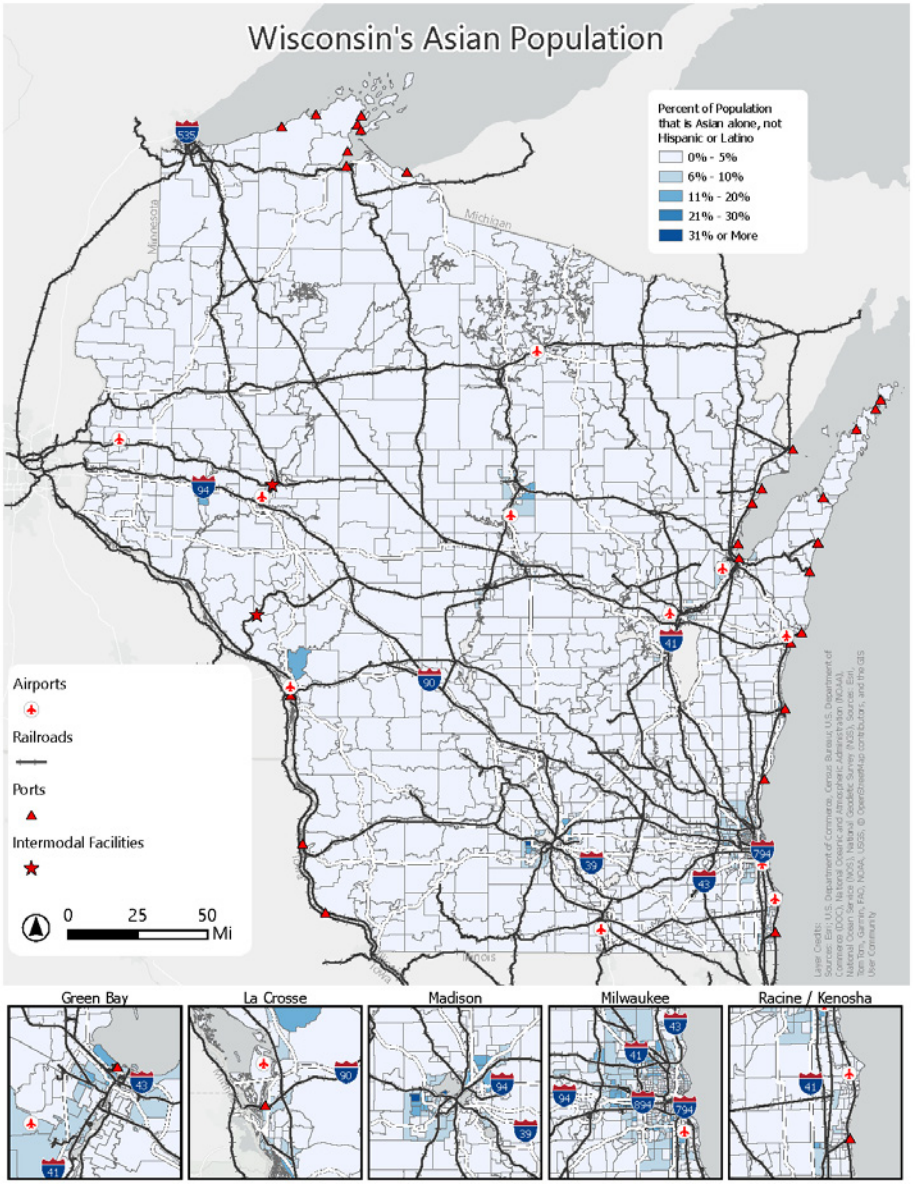


Figure C-7. Other Race Population

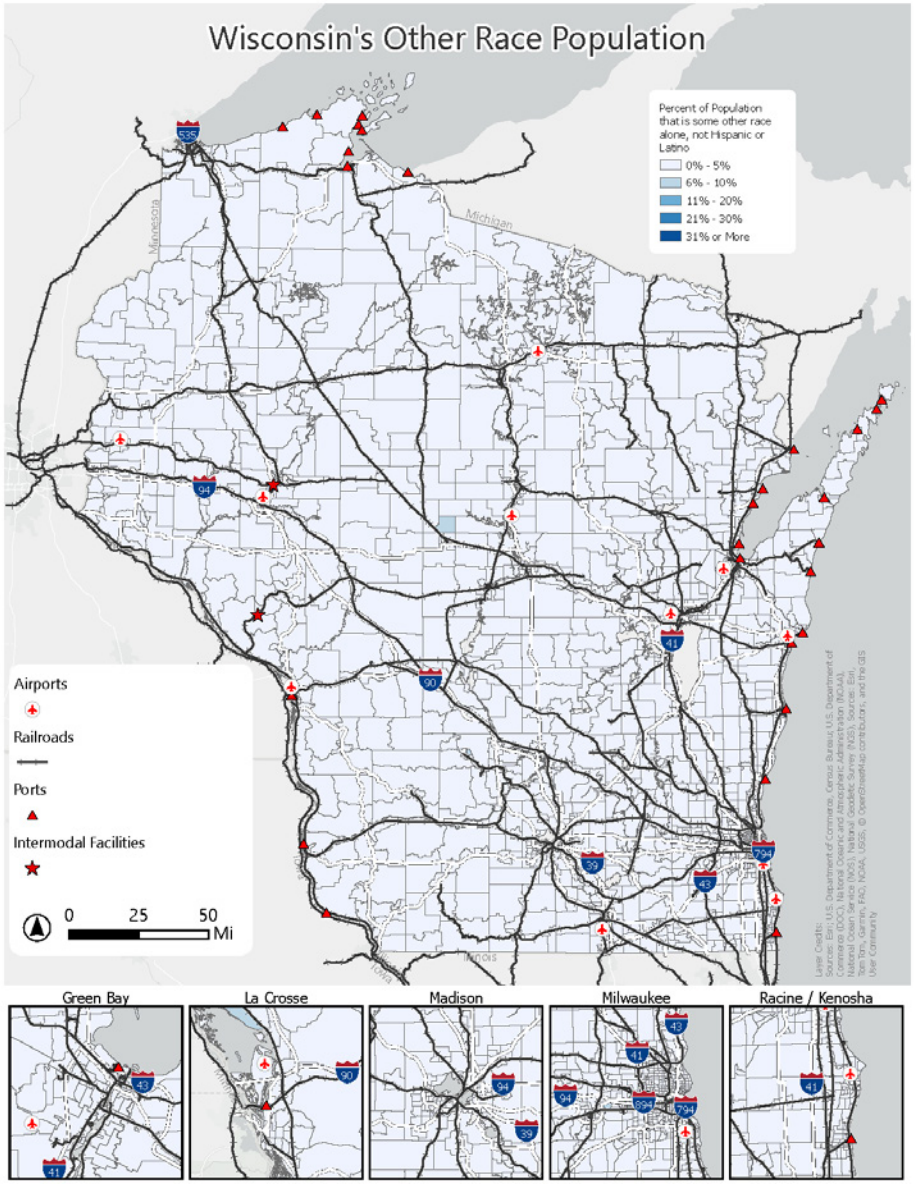


Figure C-8. Two or More Races Population

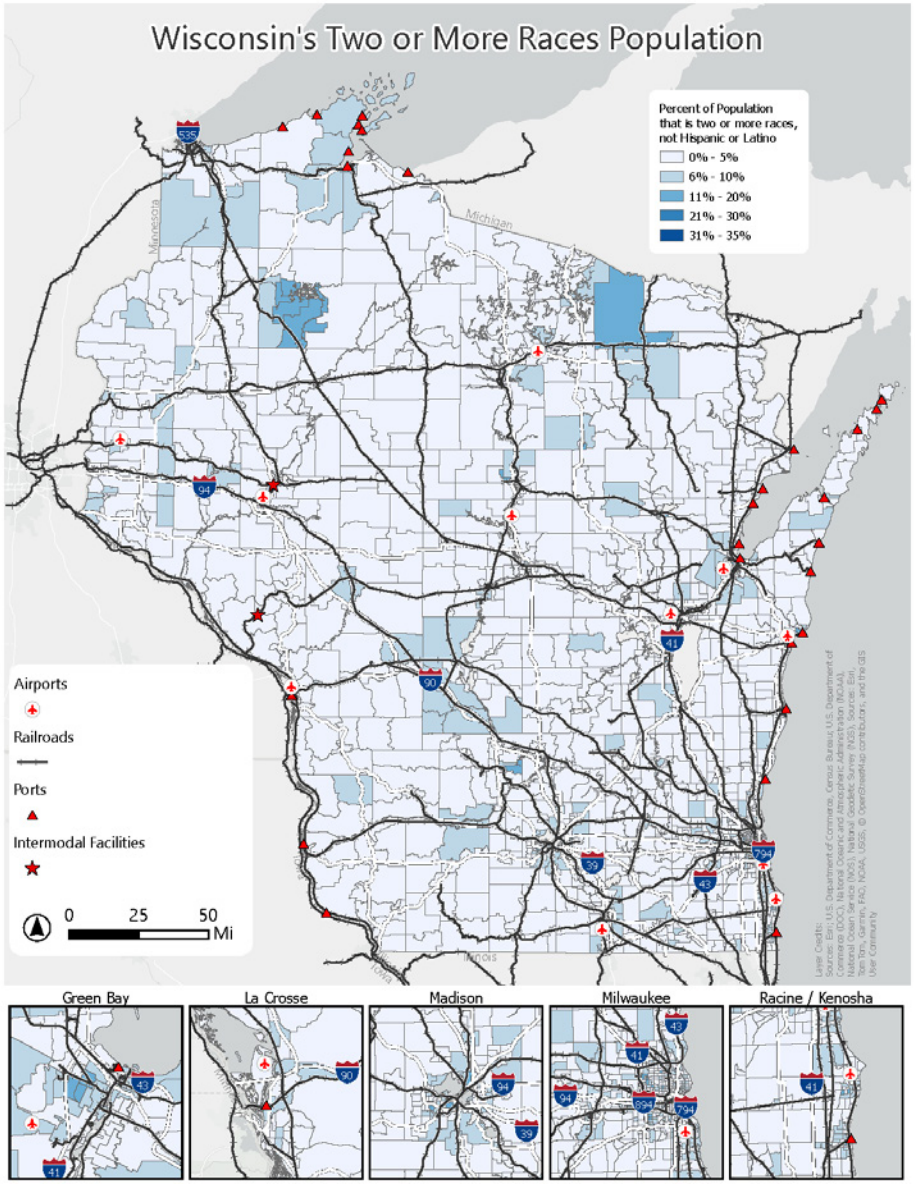


Figure C-9. Population in Poverty

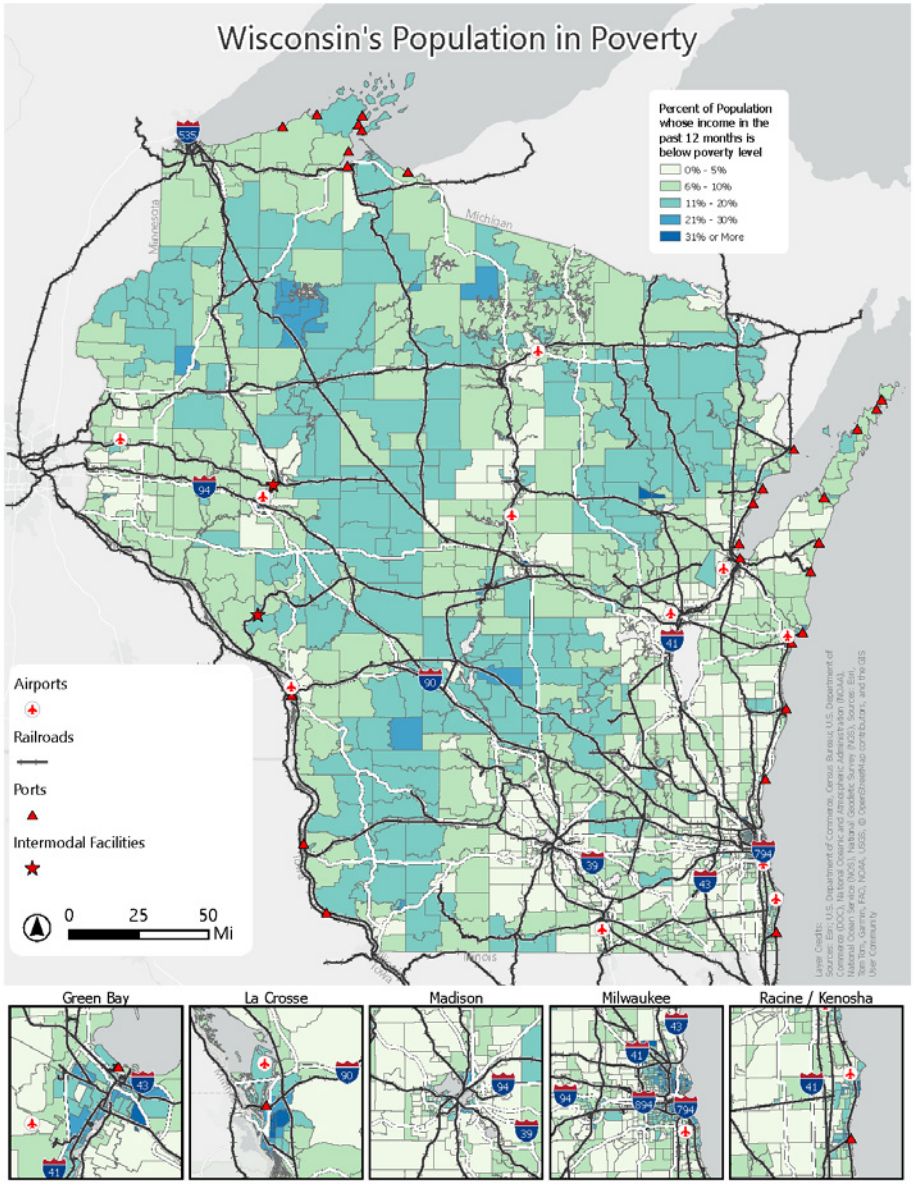


Figure C-10. Disabled Population

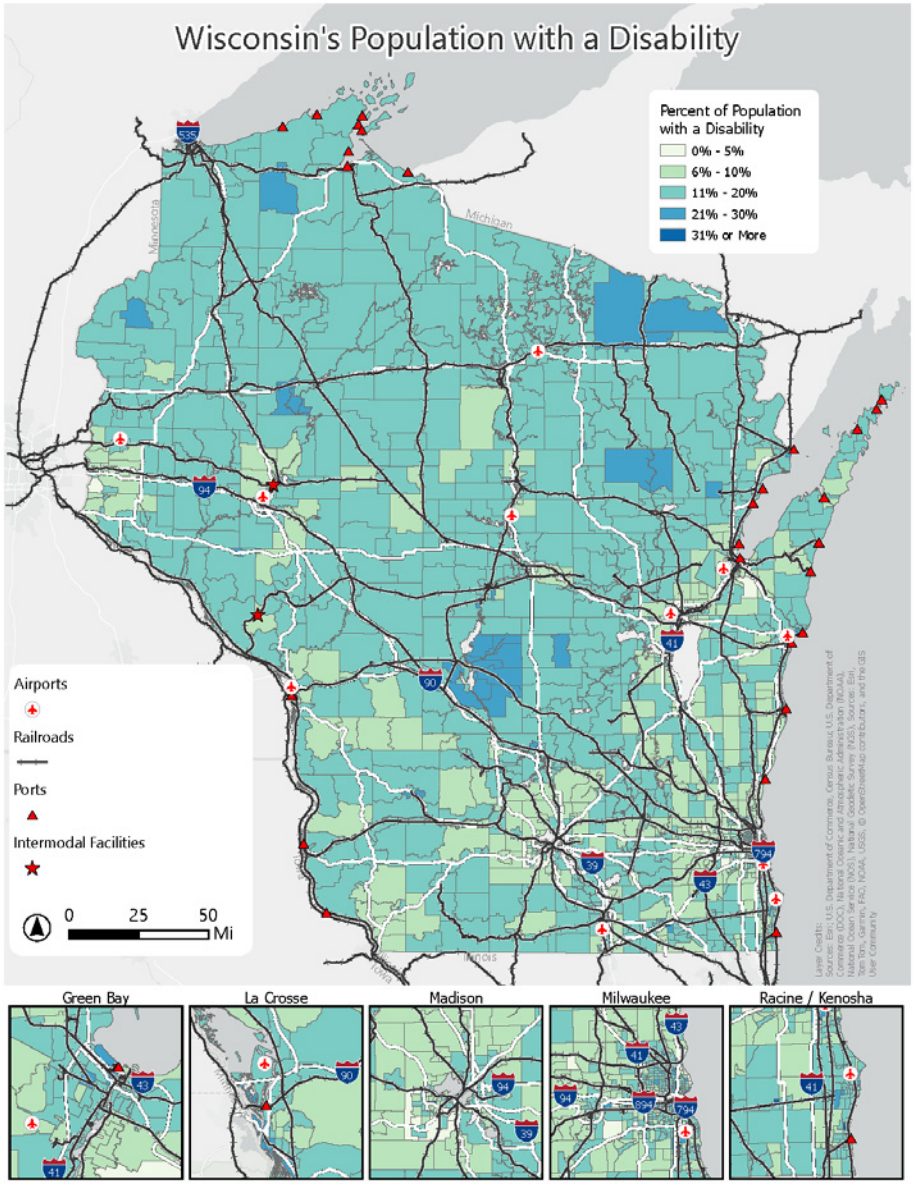


Figure C-11. Senior Population

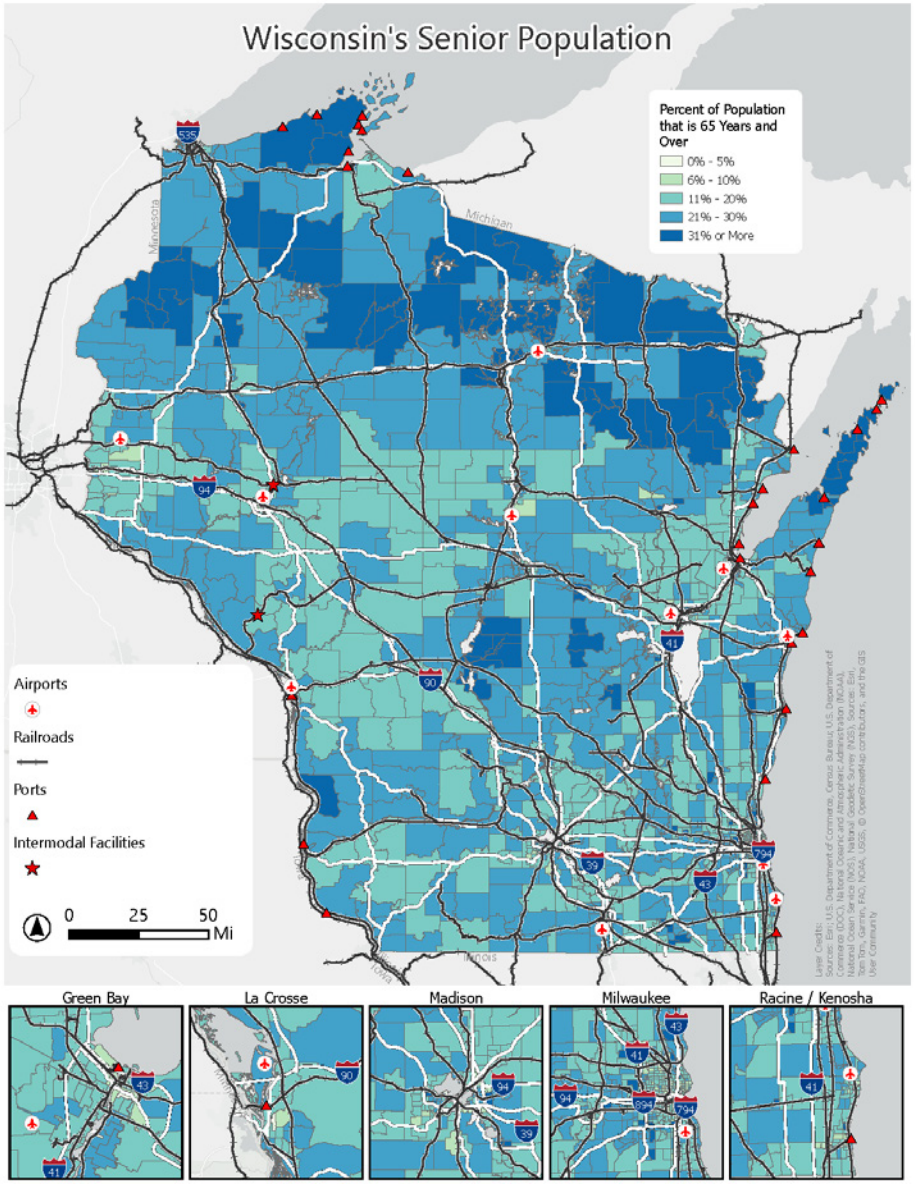


Figure C-12. Youth Population

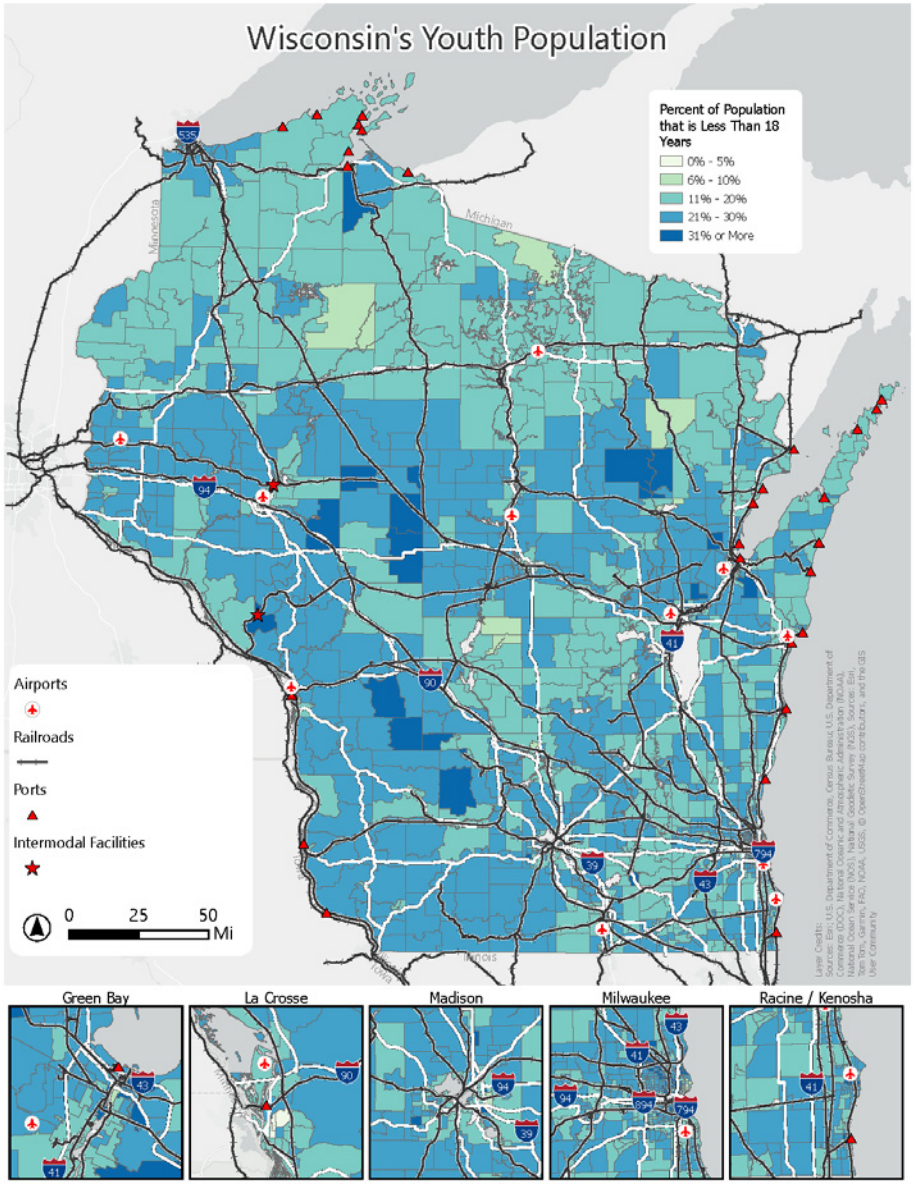


Figure C-13. Zero-Vehicle Households

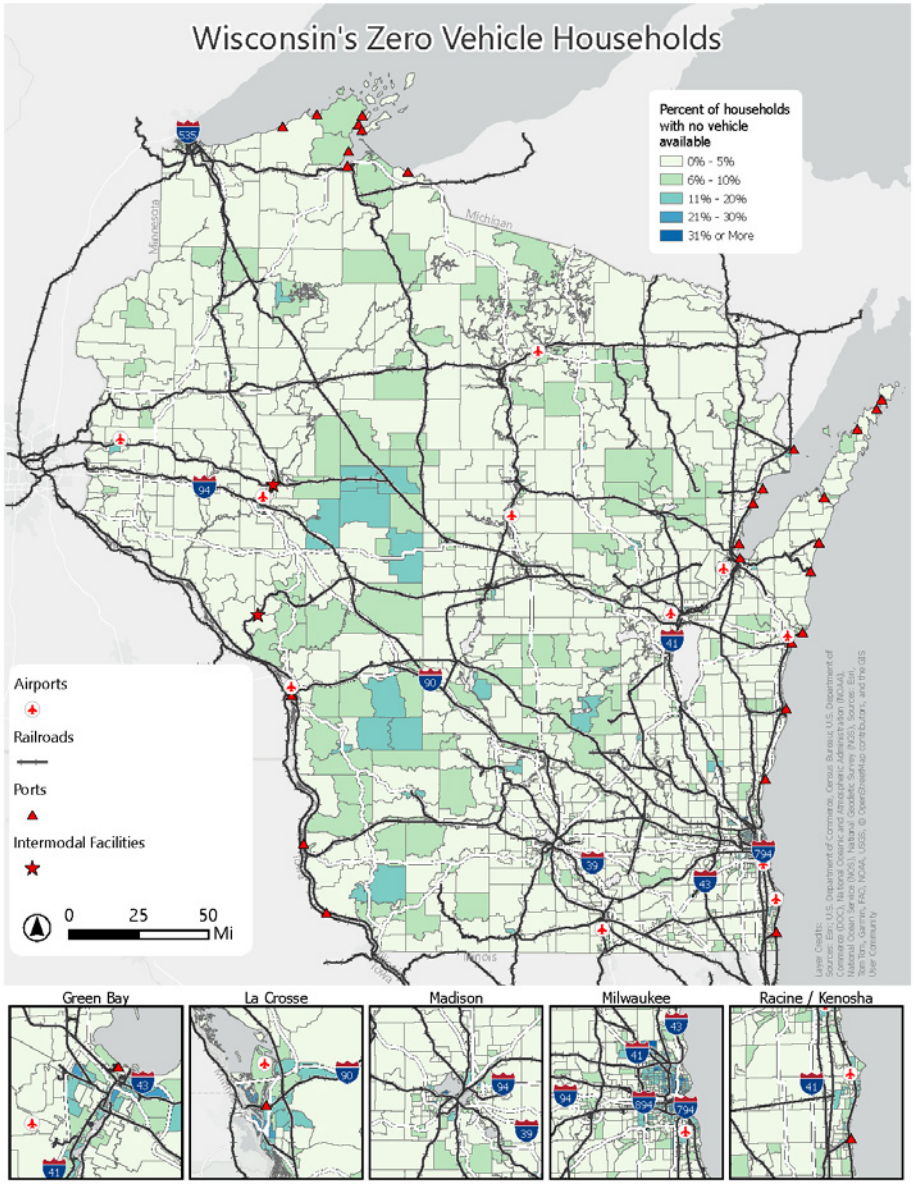
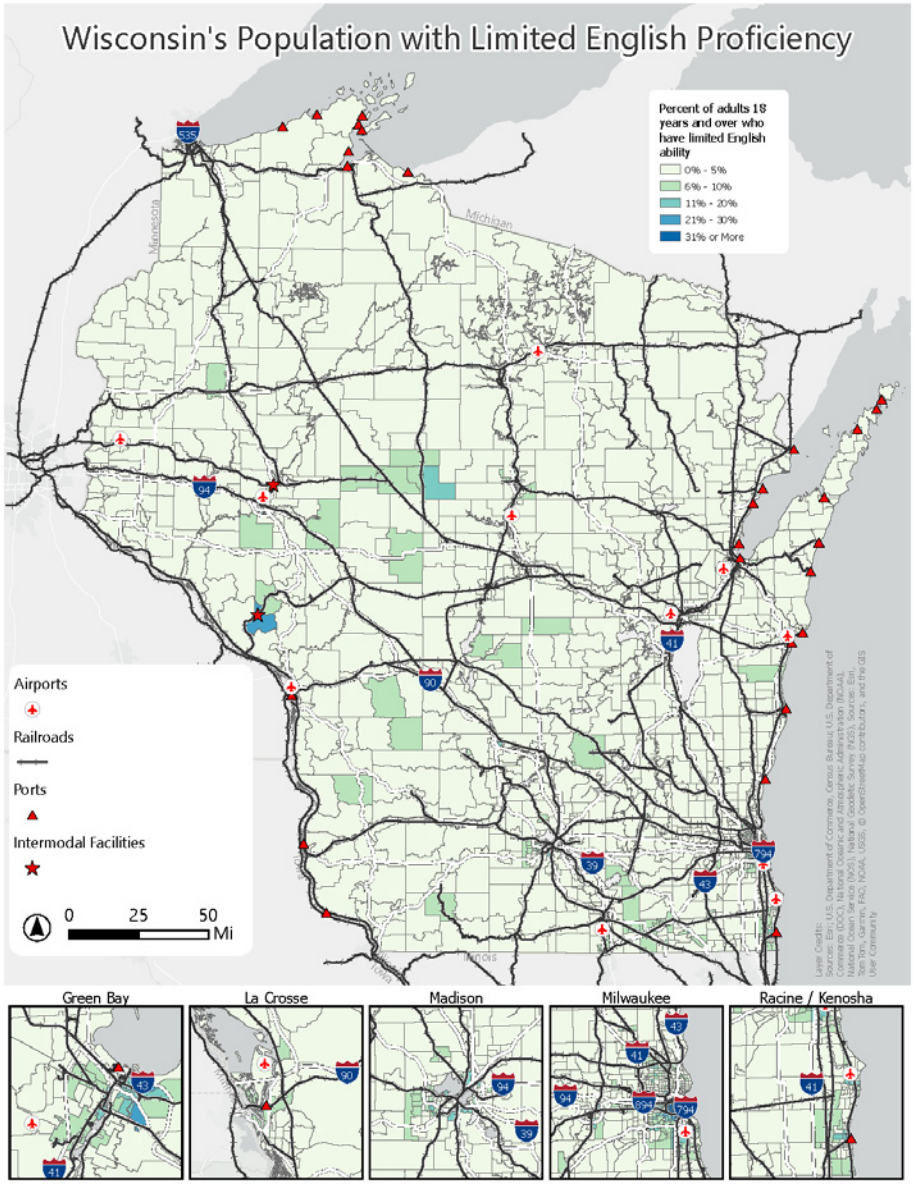


Figure C-14. Limited English Proficiency



C.5 Potential Mitigation Measures

While state-led mitigation efforts are conducted at the project-level, rather than the long-range plan level, it should be noted that many mitigation measures are already being deployed by public and private sector operators. Such efforts will continue under the State Freight Plan.

Some examples include:

- Noise walls or berms along major highways
- Rights-of-way that separate highways from surrounding land uses and residents
- Prohibitions on truck "engine braking" in residential areas
- Improved rail-highway grade crossing safety treatments that allow consideration of quiet zones in urbanized areas
- Implementation of idling ordinances
- Newer diesel locomotives with reduced emissions
- Testing of battery-powered locomotives for yard switching operations
- Zoning that keeps commercial port activity separate from recreational and residential users
- Use of runway approaches away from population centers, especially for night operations
- Detectors to notify of liquid or gas leakage from pipelines
- Regular communication with local and private sector partners to discuss best practices and new regulations

C.6 Stakeholder Engagement

As discussed within Appendix B, WisDOT's engagement with the freight community and broader stakeholder groups has been regular and ongoing. WisDOT's Freight Advisory Committee (FAC) first met in 2015, with broad membership from private sector organizations representing industry, agriculture, logistics, warehousing, economic development, and transportation. Non-voting members from other government agencies provide guidance from federal and state programmatic and regulatory perspectives. The FAC averages two meetings per year. A separate subcommittee of the FAC helped provide guidance on intermodal freight issues and opportunities, shaping the development of an intermodal policy.

As noted earlier, WisDOT follows or exceeds the requirements established for public involvement, including explicit outreach efforts to and coordination with Tribes, people with disabilities, those with Limited English Proficiency, non-drivers, and all racial and ethnic groups. WisDOT contacted representatives of these communities during the public comment period to ensure awareness of the Draft State Freight Plan. The department also has established, long-term engagement with various businesses through its Disadvantaged Business Enterprise (DBE) program.

The information received from ongoing outreach will be used to inform projects as they arise from the State Freight Plan. This information may also be used to support amendments to the Freight Plan's prioritized projects and will also help form a baseline of concern in the scoping and preparation of the next iteration of the State Freight Plan.

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